

*South Australian Year Book*



1978

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SOUTH AUSTRALIAN

YEAR BOOK

1978

*Bill St. Clair-Johnson  
PDS Premier's Department*

The Hajek Environmental Sculpture on the Southern Plaza of the Adelaide Festival Centre, which was officially opened by Her Majesty Queen Elizabeth the Second on 22 March 1977.







*South  
Australian  
Year Book*

*No. 13 : 1978*

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**AUSTRALIAN BUREAU OF STATISTICS  
SOUTH AUSTRALIAN OFFICE**



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## PREFACE

The *South Australian Year Book* is a general reference work presenting an authoritative and comprehensive statistical and descriptive portrayal of South Australia. It includes studies of the historical and geographical background and of the social, physical and financial development of the State culminating in a picture of South Australia as it is today.

This volume, the thirteenth issue of the Year Book, includes a special article on Aboriginal Tribes of South Australia and a special industry study on Softwood Holdings Ltd. Some chapters or portions of chapters have been condensed to make room for the additional material but in such cases appropriate cross-references are given indicating in which earlier volumes the more complete information may be found. A list of special articles which appeared in previous issues is shown on pages 651-2.

Other official statistics of South Australia are published in different media, each chosen as the most appropriate to meet a particular need, whether this be for a compact reference guide, or for more detailed historical or up-to-date data, either on a specific subject or embracing wider fields.

A comprehensive range of statistics is published also by the Australian Statistician covering the whole of Australia (but giving some broad details about the States) and by other Deputy Commonwealth Statisticians for their respective States. The details of such publications are available at each office of the Bureau.

This Office maintains an Information Service, which, on request, supplies available statistical information and advice on which publications are appropriate, and a library in which all publications of the Australian Bureau of Statistics are available for reference. Businessmen, government officers and members of the public are invited to make use of these services.

I gratefully acknowledge the valuable assistance given by contributors of special articles and by the Government Printer and his staff. My thanks are tendered to the staff of this Bureau especially Mr I. R. Milne, B.Ec., under whose direction the Year Book was compiled by Mr G. D. Carey, B.Ec., A.A.S.A. (Senior).

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## METRICATION

In this publication quantities are shown in metric units.

1 millimetre	= 0.03937 inches
1 metre	= 3.28083 feet
1 kilometre	= 0.621371 miles
1 hectare	= 2.47105 acres
1 square kilometre	= 0.386102 square miles
1 kilogram	= 2.20462 pounds (lb)
1 tonne	= 0.984207 ton
1 tonne	= 36.7437 bushels of wheat
1 tonne	= 44.0925 bushels of barley
1 tonne	= 55.1156 bushels of oats
1 cubic metre	= 35.3147 cubic feet
1 cubic metre	= 423.776 super feet
1 cubic metre	= 27.4961 bushels
1 litre	= 0.219969 gallons

## EXPLANATORY NOTES

In general, statistics in this volume relate to South Australia. A few tables, which are appropriately footnoted, include details for the Northern Territory.

Values are shown in Australian dollars (\$ or \$A) and cents unless another currency is specified.

In tables any discrepancies between totals and sums of components are because of rounding.

### Symbols Used

<i>n.a.</i>	not collected, not available for publication
..	not applicable
<i>n.e.c.</i>	not elsewhere classified
<i>n.e.i.</i>	not elsewhere included
<i>n.e.s.</i>	not elsewhere specified
—	nil or less than half the final digit shown
*	figures not yet available
<i>p</i>	preliminary
———	break in continuity of series (where drawn across a column between two consecutive figures)

### Citation of Acts

Acts of the Commonwealth Parliament are cited in *italics* with the relevant year in roman type *e.g. Census and Statistics Act 1905.*

Acts of the South Australian Parliament are cited in roman type *e.g. Licensing Act, 1967-1978.*

**PART 1**

**NATURAL ENVIRONMENT**

**1.1 DESCRIPTION**

**Size and Location**

The State of South Australia has the Southern Ocean to the south and is flanked on the other sides by land. It lies south of the 26th parallel of south latitude and has as a western boundary the 129th meridian of east longitude. The eastern boundary, north of the River Murray, corresponds with the 141st meridian, while to the south, between the river and the sea, the boundary lies approximately three kilometres to the west of this meridian.

The State is approximately 1 201 kilometres from east to west at the northern boundary and 1 143 kilometres at the head of the Great Australian Bight; from north to south it varies from 630 kilometres near the western extremity to approximately 1 325 kilometres near the eastern boundary; its coastline, excluding islands, measures approximately 3 540 kilometres. South Australia covers a total area of 984 375 square kilometres (one-eighth of the area of the Australian continent); however, approximately one-third of this area has no significant economic use and over one-half is devoted to extensive pastoral pursuits. Approximately 99 per cent of the population live south of the 32nd parallel.

A comparison of the areas, length of coastline and standard time of the various States and Territories is shown in the following table. The areas and length of coastline were determined by the Division of National Mapping by manually digitising these features from the 1:250 000 map series of Australia. This means that only features of measurable size at this scale were considered. About 60 000 points were digitised at an approximate spacing of 0.5 km. These points were joined by chords as the basis for calculation of areas and coastline lengths by computer.

## Area, Coastline and Standard Times, Australia

State or Territory	Estimated Area (a)		Length of Coastline (a)	Standard Time	
	Total	Percentage of Total Area		Meridian Selected	Ahead of G.M.T.
	'000 km <sup>2</sup>		km		Hours
New South Wales .....	802	10.43	1 900	150°E	(b) 10.0
Victoria .....	228	2.96	1 800	150°E	(b) 10.0
Queensland .....	1 727	22.48	7 400	150°E	10.0
<b>South Australia .....</b>	<b>984</b>	<b>12.81</b>	<b>3 700</b>	<b>142°30'E</b>	<b>(b) 9.5</b>
Western Australia .....	2 526	32.87	12 500	120°E	8.0
Tasmania .....	68	0.88	3 200	150°E	(b) 10.0
Northern Territory .....	1 346	17.52	6 200	142°30'E	9.5
Australian Capital Territory ..	2	0.03	35	150°E	(b) 10.0
<b>Australia .....</b>	<b>7 682</b>	<b>100.00</b>	<b>36 735</b>	..	..

(a) As determined by the Division of National Mapping.

(b) Because of 'daylight saving' an hour should be added from late October to early March.

### Standard Time

In terms of The Standard Time Act, 1898 South Australia has used 'the mean time of the meridian of longitude one hundred and forty-two and a half degrees east of Greenwich' as standard time since 1 May 1899. This time, known in Australia as Central Standard Time, is nine hours thirty minutes ahead of Greenwich Mean Time, one hour thirty minutes ahead of Western Standard Time used in Western Australia and thirty minutes behind Eastern Standard Time used by States on the east coast of Australia.

Before 1 February 1895 the meridian of Adelaide 138° 35' east (*i.e.* 9 hours 14 minutes ahead of Greenwich) was used to determine standard time in South Australia and subsequently from 1 February 1895 to 30 April 1899 the meridian 135° (*i.e.* 9 hours ahead of Greenwich) was used.

The Daylight Saving Act Amendment Act, 1972, assented to on 12 October 1972, provided for the observance of daylight saving in the Summer of 1972-73, and in each subsequent summer, from the last Sunday in October until the first Sunday in March, South Australian summer time being adopted during this period.

A special article on the basis of time keeping and the determination of time standards was included in pages 1-2 of the *South Australian Year Book* 1973. An article in the determination of the time of sunrise and sunset was included in pages 3-5 of the same issue.

### Physical Features

South Australia is a land of generally low relief, the inland area being largely covered by featureless plains, or sand and gibber deserts. Approximately 50 per cent of the State is less than 150 metres above sea level and over 80 per cent is less than 300 metres. Even the dominant mountains, the Mount Lofty-Flinders Ranges system, nowhere exceed 1 200 metres and have at no point proved difficult barriers to communications.

On the other hand the pattern of communication and development has been greatly influenced by the nature of the coastline, the south-easterly trend of which is interrupted by two major indentations, Spencer Gulf and Gulf St Vincent. These two relatively shallow depressions cut into the settled areas a distance of approximately 300 and 150



kilometres respectively. The resultant natural divisions earlier tended to develop their own centres and many ports were constructed along the coast in spite of the fact that, with the exception of the area between Port Lincoln and Fowlers Bay, the nature of the coastline is not particularly accommodating to port development.

Kangaroo Island, approximately 480 kilometres in circumference and covering 4 350 square kilometres, is the predominant island off the South Australian coastline. There are, however, approximately 100 islands in all, relatively few of which are utilised.

The effect of the vast ocean area to the south is a more temperate climate than would be suggested by the latitude while the trend of the coastline exposes the coastal areas to the westerly rain-bearing air streams.

The most important mountains are the Mount Lofty-Flinders Ranges system. Kangaroo Island structurally belongs to these ranges which, together with parallel subsidiary ranges, extend north from Cape Jervis some 800 kilometres to the northern end of Lake Torrens. In the south the rounded hills of the Mount Lofty Ranges are of comparatively low altitude with Mount Lofty, the highest peak, being 727 metres. The western side of these ranges presents steep scarps to the Adelaide plains while on the eastern side more gentle slopes merge into the Murray Basin.

To the north the Flinders Ranges are of greater height and sharper outline than their southern counterpart. St Mary Peak of 1 166 metres is the highest point. North of Peterborough there is a divergence from the main range which stretches *via* the Olary Ridges to the Barrier Range and Broken Hill. In the far north the ranges again diverge; one spur circling the northern end of Lake Torrens and the other ending north of Lake Frome. The Flinders Ranges contain some unusual basins of which Wilpena Pound is perhaps the best known.

The Mount Lofty-Flinders chain has an important climatic influence which results in higher rainfall in the plains to the west of the ranges, and in the ranges themselves, with relatively dry conditions in the Murray Basin.

The western half of the State is largely occupied by a low plateau over which an intermittent series of low ranges, including the Warburton, Stuart, Denison, Peake, and Everard Ranges, stretch from the Flinders to the somewhat higher Musgrave Ranges in the far north-west. Mount Woodroffe (1 440 metres), the highest point in the State, is located in the Musgrave Ranges.

The comparatively low hills of the Gawler Ranges form the northern side of the Eyre Peninsula triangle, and to the west of Whyalla lie the economically important Middleback Ranges. Isolated peaks of volcanic origin are found in the extreme south-east of the State.

The River Murray, which drains approximately one-seventh of Australia, enters the sea in South Australia and is the State's only major river. The fall of the Murray is very slight, dropping less than 22 metres over the 642 kilometres between the border and the sea. For the 216 kilometres to Overland Corner the river occupies a wide valley and then passes through a narrower steeper-sided valley to Lakes Alexandrina and Albert at its heavily silted mouth.

Surrounding the northern Flinders Ranges is a series of vast lakes which are in reality lakes only after particularly heavy rainfall, normally appearing as shallow depressions with a salt or clay encrusted surface. Lake Eyre, the largest of these, is 15 metres below mean sea level and is fed by a series of intermittently flowing rivers, including the Finke, the Diamantina and Cooper Creek, which traverse the plains of the north-east, constituting one of the largest areas of internal drainage in the world. To the south of Lake Eyre are Lakes Gairdner, Frome and Torrens, the last named being 240 kilometres in length.

### General Geological Background

The physiography of the State very accurately outlines the geological features, the areas of higher relief being the basement rocks protruding as cores or ridges through the flat-lying younger sediments of the basin areas.

The main physiographic feature is the Kangaroo Island-Mount Lofty-Flinders Ranges arc of hills, which, although of no great elevation, extends over a distance of 800 kilometres. The rocks of this arc, which are predominantly ancient sediments, have been folded and faulted in a spectacular manner providing many classic examples of textbook tectonics; they owe their present prominence to repeated fold and uplift movements throughout geological time. The hills of the chain rise from the coastal plains of Gulf St Vincent to the west, the plains of the Murray River to the east, and the Lake Frome and Lake Eyre plains in the north-east and north. The basement rocks are also exposed to the west of Spencer Gulf, but are more completely levelled off, and constitute a geological shield of greater antiquity than the Mount Lofty arc.

In the far north-west of the State, the ancient basement is again exposed in the east-west trending hills of the Musgrave and Everard Ranges. These ranges form the northern boundary of the Great Victoria Desert which, with the great coastal Nullarbor Plain, covers the western half of the State.

There is thus a broad geological picture of ancient crystalline or partly crystalline folded rocks forming highland chains and provinces, surrounded by relatively young and soft flat-lying sediments which have accumulated in deep troughs and basins during periodic transgressions and regressions of the sea throughout most of geological time.

It is in the hard rock provinces that are found the deposits of minerals and rocks which have played an important role in the industrial development of the State. The basin areas are important as sources of artesian water and are the areas in which important oil and natural gas discoveries have been made.

In general, the younger sediments of the basin areas do not provide good agricultural soils except in the higher rainfall areas of the south and south-east of the State, while the best agricultural lands lie in the hard rock provinces of the Gawler-Barossa-Clare regions of the central ranges where relatively good rainfall is associated with more mature soil conditions.

A more complete discussion on the geology of South Australia was included on pages 3-18 of the *South Australian Year Book* 1970.

### Seismicity

The most active area of the Australian continent is that of the South Australian seismic zones. The South Australian area has been monitored since 1962 by a small network of stations operated by the University of Adelaide.

The South Australian epicentres occur mainly in two belts, the major one being within the Adelaide Geosyncline and referred to as the Adelaide Seismic Zone. It extends from Kangaroo Island through the Mt Lofty and Flinders Ranges to Leigh Creek in the north. The epicentres generally follow the ranges and also the western boundary of the Upper Proterozoic Sequence and the fold trends in that part of the Geosyncline curving around to the east of Lake Torrens. The other main South Australian seismic zone is on Eyre Peninsula.

A discussion on earthquakes in South Australia was included on pages 18-19 of the *South Australian Year Book* 1970.

### Eclipses

A special article on eclipses was included on pages 5-11 of the *South Australian Year Book* 1977.

## 1.2 CLIMATE AND METEOROLOGY

In the Southern Hemisphere, because of the extensive ocean areas and the absence of a broad land mass connecting the Antarctic with the tropical regions, the southern continents are not subject to the same range of weather extremes that are experienced in northern countries at similar latitudes. The ameliorating effect of this land-sea distribution is particularly noticeable in southern South Australia.

Briefly, the basic features of the South Australian climate are hot, dry summers with relatively mild nights, and cool but not severe winters with most rainfall occurring during the months of May, June, July and August.

### METEOROLOGICAL OBSERVATIONS

Meteorological services throughout Australia are administered by the Commonwealth Bureau of Meteorology and the Regional Office of the Bureau in Adelaide directs operations throughout the State. In South Australia daily weather reporting stations are established at nearly 80 representative localities and there are over 900 rainfall recording stations.

Station weather observations telegraphed several times a day provide the basic information for the weather forecasting and warning services provided by the Regional Forecasting Centre, Adelaide. These observations are also collated in bulletins, maps and reports issued for public information. The reports include climatic surveys which are studies of climatic variations over defined regions of the State.

### RAINFALL

#### Average Annual Rainfall

South Australia is by far the driest of the Australian States and Territories with just over four-fifths of the State receiving an average of less than 250 millimetres of rain annually. An indication of the shortage of rain in the State is given in the following table which compares the relative distribution of rainfall in South Australian and in Australia as a whole.

#### Distribution of Rainfall, South Australia and Australia

Average Annual Rainfall	Proportion of Total Area	
	South Australia	Australia
	Per cent	Per cent
Under 250 mm . . . . .	82.6	38.8
250 mm and under 400 mm . . . . .	9.1	19.8
400 mm and under 500 mm . . . . .	4.5	11.2
500mm and under 600 mm . . . . .	2.6	9.5
600 mm and under 750 mm . . . . .	0.8	7.5
750 mm and under 1 000 mm . . . . .	0.4	6.2
1 000 mm and over . . . . .	(a)	7.0
<b>Total . . . . .</b>	<b>100.0</b>	<b>100.0</b>

(a) Less than 0.05 per cent—an area of the order of 750 hectares in the Mount Lofty Ranges.

Over the southern half of South Australia the main source of rain is from showers associated with unstable moist westerly airstreams occurring fairly regularly during winter. The wettest part of the State is in the Mount Lofty Ranges, immediately east of Adelaide

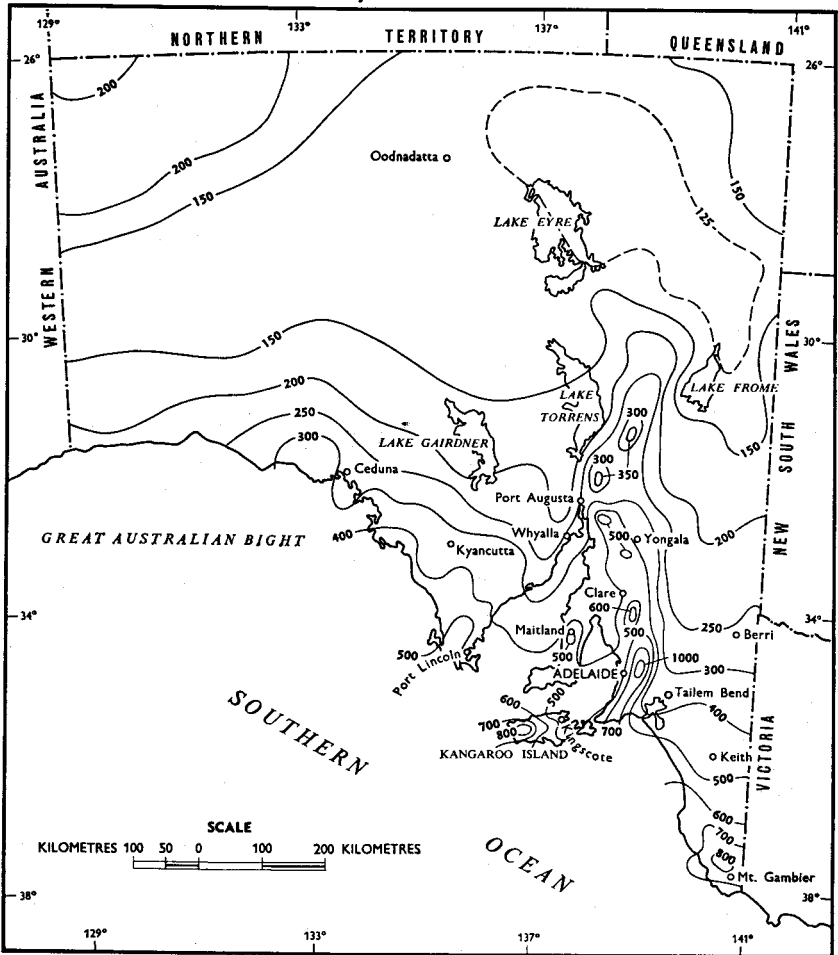
in the vicinity of Mount Lofty, where the average annual rainfall is about 1 200 millimetres. The Flinders Ranges have the effect of extending a strip area of higher rainfall well to the north.

As can be seen from the map below, the isohyets generally show highest annual averages along the ranges and southern parts of the coast. Averages fall off rapidly to less than 250 millimetres within 150 to 250 kilometres inland, and then decrease more

## SOUTH AUSTRALIA AVERAGE ANNUAL RAINFALL

Based on all years of records

Isohyets in millimetres



gradually to below 125 millimetres in the vicinity of Lake Eyre. This area is the driest part of Australia and there have been protracted periods when the average there has been less than 75 millimetres.

Average monthly rainfalls at seventeen selected recording stations are shown in the table below. The average number of days receiving 0.2 millimetres or more of rain is also shown.

#### Average Rainfall and Days of Rain: Selected Stations, South Australia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
AVERAGE RAINFALL (a) (millimetres)													
Adelaide	20	21	24	44	68	71	66	61	51	45	31	26	528
Berri	17	22	11	17	28	26	24	27	27	24	20	19	262
Ceduna	11	15	18	22	40	40	41	39	27	26	21	21	321
Clare	26	26	25	48	76	80	81	80	71	56	36	30	635
Keith	19	24	22	35	56	52	54	57	51	44	32	26	472
Kingscote	15	18	18	37	60	73	79	65	46	37	24	19	491
Kyancutta	13	18	14	22	37	41	44	43	32	27	23	20	334
Maitland	18	22	20	44	64	70	66	63	50	42	28	22	509
Mount Gambier	25	34	33	62	75	77	102	92	67	62	45	37	711
Oodnadatta	21	24	14	10	16	13	11	8	10	10	9	12	158
Port Augusta	15	17	17	19	26	27	20	23	22	23	18	16	243
Port Lincoln	14	15	19	37	58	74	78	67	49	35	23	18	487
Port Pirie	19	19	17	29	40	41	33	36	34	32	23	21	344
Stirling	39	37	43	96	143	183	161	156	124	99	61	48	1 190
Tailem Bend	19	24	21	28	43	40	40	41	39	38	28	27	388
Whyalla	20	25	17	18	28	26	22	25	25	25	23	21	275
Yongala	22	21	17	27	37	41	40	46	38	33	27	24	373
AVERAGE NUMBER OF DAYS OF RAIN (b)													
Adelaide	4	4	5	9	13	15	16	16	13	11	8	6	120
Berri	3	4	3	6	8	9	11	10	7	7	5	4	77
Ceduna	3	3	3	6	10	12	12	11	8	7	6	4	85
Clare	5	5	5	10	12	15	16	16	12	11	8	7	122
Keith	4	4	4	9	12	13	15	15	12	11	8	6	113
Kingscote	4	4	5	10	14	16	19	18	13	11	8	7	129
Kyancutta	4	4	4	7	12	12	14	14	10	9	7	5	102
Maitland	4	5	5	10	13	15	17	16	12	11	8	6	122
Mount Gambier	7	8	9	14	17	18	21	20	17	16	13	10	170
Oodnadatta	3	2	2	2	3	3	2	2	2	3	3	3	30
Port Augusta	3	3	3	5	7	7	10	9	6	6	6	4	69
Port Lincoln	4	5	5	11	15	17	19	19	13	12	8	6	134
Port Pirie	3	3	3	6	8	10	11	10	8	7	6	4	79
Stirling	6	7	7	13	15	17	18	18	15	14	11	9	150
Tailem Bend	4	5	4	9	12	13	13	13	11	10	8	6	108
Whyalla	3	3	3	5	6	7	9	8	6	6	5	4	65
Yongala	4	4	4	7	10	12	14	13	9	8	7	5	97

(a) For all years of record to end of 1974 except for Adelaide (see page 16). (b) Days receiving 0.2 millimetres or more. Other than for Adelaide (see page 16) figures relate to standard 30 year period 1931-1960.

#### Seasonal Distribution of Rainfall

Those areas of the State with the higher average annual totals also show a marked winter maximum of rainfall. From November to March the fall is slight, but rarely is completely absent. However, a high rate of evaporation during the summer means that in general these summer rains are not significant from the agricultural point of view. The first significant falls generally arrive during April or May; June, July and August are usually the wettest months, with rains tending to show a marked decrease during September and October.

By contrast, the occurrence of rain over interior districts is quite erratic, but southern parts of the interior still exhibit a discernible trend for winter maxima. Records collected over the years from this northern half of the State show that heavy rains of up to 75 millimetres may occur in any month of the year, but on the other hand at least two or three months without any significant rain at all are experienced practically every year.

### Rainfall Intensity

Long sustained periods of intense rainfall are rare in South Australia. However, occasionally there are very intense falls lasting only a few minutes—for example in Adelaide several falls at a rate of more than 100 millimetres an hour over a five-minute period have been recorded. These would have been thunderstorm rains, and intense falls can cause considerable damage to crops and to light or freshly worked soils.

The most notable falls of rain which have occurred within a period of 24 hours ending at 9 a.m. were at:

Ardrossan (18 February 1946).....	206 mm
Oodnadatta (9 February 1976).....	200 mm
Carpa, 25 km SW of Cowell, (18 February 1946).....	199 mm
Hesso, 50 km NW of Port Augusta, (18 February 1946).....	187 mm
Wilmington (1 March 1921).....	181 mm
Wynbring, 100 km W of Tarcoola, (28 February 1921).....	178 mm

Other Yorke Peninsula towns besides Ardrossan also recorded over 175 millimetres on 18 February 1946. These, however, are very much below the 24-hour falls which have been recorded in tropical parts of Queensland and Western Australia. Crohamhurst in Queensland once recorded 907 millimetres in one day, and more than twenty other centres in Queensland have had daily readings exceeding 600 millimetres.

### Snow and Hail

The occurrence of snow in South Australia is infrequent and is mainly confined to the Mount Lofty Ranges and southern Flinders Ranges. Most falls are very light and do not persist for a very long period because of the relative warmth of the ground. Collated reports of snow in the Mount Lofty Ranges show a total of 129 days of snow experienced over a period of 137 years to the end of 1977. While most falls have occurred during the months June to September snow has been experienced as early as 25 April (1916) and as late as 3 December (1955).

Hail falls most frequently about the southern coasts and ranges during the winter. Further to the north, hail can be experienced with summer thunderstorms and some of the largest hailstones have been reported from northerly parts of the State. Tornadoes and tornadic squalls are, in almost all cases, accompanied by hail.

### Floods

Various areas of South Australia are prone to localised flooding. However, most local flooding is associated with intense rainfall, and consequently, is of comparatively short duration. Exceptions have occurred in parts of the south-east and far north of the State where, because of topography and other soil factors, stretches of water can persist for days and even weeks.

Extensive rises in the River Murray levels have at times caused damage to levees and installations along the banks. During 1956, following an excessive snow melt in the Australian Alps, prolonged flooding was experienced in many areas adjacent to the main course.

### Droughts

When dry conditions persist over wide areas for long periods of time, drought, the worst of all Australian climatic hazards, is experienced. The worst years in South Australia were 1863-67, 1896-98, 1901-03, 1913-16, 1926-30, 1939-40, 1943-45, 1959-62 and 1965 in the interior, and 1859-60, 1884-86, 1895-98, 1911-15, 1928-29, 1943-45, 1959, 1967 and 1976-77 in the settled areas.

The driest year in terms of actual rainfall was 1967, when an all-time low figure for the year of 257 millimetres was recorded in Adelaide. However, the 1914 drought is generally recognised as being the most severe experienced, and in that year districts where drought was almost unknown were seriously affected. The average wheat yield fell to only 0.09 tonnes per hectare, little more than one tenth of the yield in previous seasons. In places the River Murray was just a series of waterholes.

The northern areas suffer more frequent droughts than areas near the coast. In 1896 the track north-west of Port Augusta was closed to all traffic because of the drought stricken nature of the country. At about this time the drought was particularly severe in the north-east of the State, and this pastoral country was entering its eighth consecutive year of drought before relief rains fell in March 1902.

A more detailed discussion with special reference to rainfall deciles was included on pages 8-10 of the *South Australian Year Book 1967*. Further details of droughts appear in the Bureau of Meteorology publications *Droughts in Australia* by J. C. Foley (Bulletin No. 43) and *Rainfall Deciles as Drought Indicators* by W. J. Gibbs and J. V. Maher (Bulletin No. 48).

#### Rainfall Probability

A special article on rainfall probability, *i.e.* the likelihood, expressed as a percentage, that a minimum rainfall will be received during a stipulated period, was included on pages 6-9 of the *South Australian Year Book 1966*.

## TEMPERATURE

#### Seasonal Temperature Conditions

Air temperature is normally recorded under standard conditions in a Stevenson Screen. Isotherms of the average maximum temperatures in a mid-summer month (January) and of the average minimum temperature in a mid-winter month (July) are shown on the maps on pages 11 and 12 respectively. The isotherms are more or less parallel to the coastline but the cooling effect associated with higher altitudes of the Mount Lofty and Flinders Ranges is clearly shown.

From December to February it is generally warm to hot throughout the State but sea breezes frequently bring some relief to the coastal districts. In locations more than 75 to 150 kilometres inland maximum daily temperatures usually exceed 32.5°C and are quite often over 37.5°C. In general, areas to the north of the 32.5°C isotherm on the January map average more than 20 days annually during which the maximum temperature exceeds 37.5°C; while it is only on the extreme south-east coastal fringe and Kangaroo Island where the average number of such 'very hot days' is less than five a year. Air masses prevalent at this time of the year are relatively dry; hence cooling during the night is marked—a fall of 10°C to 20°C from day to night is usual.

During March temperatures begin to fall and continue to do so during April and May, the first frosts of the year often being experienced during this period. The three coldest months are June, July and August, with the coldest areas along the highlands. In those parts of the State east and south-east of the ranges, the mean temperature for the latter months is near or just below 10°C, and these low temperatures cause vegetation growth to become very slow, although it does not cease altogether.

In the spring months, September to November, with gradually rising temperatures and longer hours of sunshine, crops and pastures grow rapidly. In this period severe frosts are sometimes experienced and these can cause considerable damage to fruit crops during the bud, flower and small fruit stages. When hot, dry, northerly winds persist over the State for two or more consecutive days, developing crops may suffer stress.

Monthly mean maximum and minimum temperatures at seventeen selected recording stations within the State are shown in the following tables. These are based as nearly as possible on a standard period except for the figures for Adelaide which are based on all years of record.

#### Mean Maximum Temperatures: Selected Stations, South Australia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
° Celsius													
Adelaide	29.5	29.4	26.8	22.7	18.7	15.8	15.0	16.4	18.9	22.0	25.1	27.8	22.4
Berri	31.1	30.2	28.1	22.5	18.9	15.7	15.4	17.2	20.7	23.4	26.8	29.7	23.3
Ceduna	28.5	27.4	26.6	23.7	20.6	18.2	17.0	18.3	21.4	23.3	25.8	27.2	23.2
Clare	29.3	29.0	26.3	21.1	16.9	13.6	12.9	14.6	17.5	20.8	22.0	27.7	21.2
Keith	30.1	28.8	26.9	21.9	17.6	15.4	14.7	15.7	18.5	21.5	24.2	27.3	21.9
Kingscote	23.5	23.2	22.0	19.5	17.2	15.2	14.3	14.8	16.3	18.3	20.4	22.1	18.9
Kyancutta	32.9	31.8	30.1	24.9	21.1	17.8	16.9	18.4	21.8	25.2	28.3	30.7	25.0
Maitland	28.9	27.2	25.4	21.7	17.4	15.6	13.8	14.9	17.5	20.7	24.2	25.3	21.1
Mt Gambier	24.9	23.8	22.6	18.6	15.5	13.7	12.8	13.8	15.8	17.4	19.7	22.3	18.4
Oodnadatta	37.4	36.1	33.4	27.9	22.8	19.7	19.3	21.6	26.1	29.7	33.4	35.9	28.6
Port Augusta	32.1	31.3	29.8	25.2	21.2	17.7	17.1	19.1	22.6	25.3	28.3	30.5	25.0
Port Lincoln	24.9	24.5	23.6	21.0	18.6	16.3	15.6	16.3	18.2	19.7	21.4	23.2	20.3
Port Pirie	31.9	31.4	29.6	24.6	20.2	17.1	16.3	17.9	21.4	24.6	27.7	30.0	24.4
Stirling	24.9	24.3	22.8	18.0	14.4	11.6	10.6	11.8	14.6	16.9	19.9	22.6	17.7
Tallem Bend	29.6	28.3	26.8	22.6	18.7	16.0	15.4	16.6	20.0	22.1	24.8	27.2	22.3
Whyalla	28.8	28.2	26.6	23.5	20.2	17.9	16.4	17.7	20.2	23.3	25.3	26.6	22.9
Yongala	30.6	29.5	27.1	21.4	16.8	13.4	12.4	13.4	17.8	21.7	25.5	28.3	21.5

#### Mean Minimum Temperatures: Selected Stations, South Australia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
° Celsius													
Adelaide	16.4	16.6	15.1	12.7	10.3	8.3	7.3	7.8	9.0	10.9	12.9	15.0	11.9
Berri	15.2	14.9	13.4	10.1	7.8	6.1	5.3	5.9	7.7	9.9	12.1	14.2	10.2
Ceduna	14.5	14.6	12.8	10.3	8.5	7.3	6.6	6.1	7.7	9.6	11.8	13.7	10.3
Clare	13.8	13.8	11.4	8.3	5.8	4.4	3.3	3.9	5.2	7.3	10.2	12.3	8.3
Keith	12.6	12.3	10.7	9.1	7.4	6.1	5.1	5.2	6.6	7.8	9.4	11.2	8.6
Kingscote	14.6	15.1	14.1	12.2	10.6	9.3	8.3	8.1	8.9	10.2	11.7	13.3	11.4
Kyancutta	14.1	13.8	12.2	9.2	7.2	5.3	4.7	4.8	6.1	8.3	10.4	12.7	9.1
Maitland	14.9	14.6	13.6	11.7	9.3	7.6	6.3	6.7	7.8	9.5	11.5	12.9	10.5
Mt Gambier	10.3	10.9	9.7	7.8	6.8	5.4	4.7	4.9	5.8	6.8	7.8	9.4	7.5
Oodnadatta	22.4	21.8	19.0	14.3	9.7	6.8	6.0	7.1	10.4	14.7	18.1	20.8	14.3
Port Augusta	18.7	18.7	17.0	13.3	10.1	7.7	6.8	7.8	9.9	12.6	15.1	17.3	12.9
Port Lincoln	15.3	15.5	14.8	12.8	11.0	9.4	8.5	8.4	9.2	10.6	12.2	13.9	11.8
Port Pirie	17.1	17.2	15.7	12.5	10.2	8.2	7.4	7.8	9.4	11.6	13.8	15.8	12.2
Stirling	11.5	11.6	10.6	8.6	6.8	5.3	4.6	4.8	5.9	7.1	8.7	10.2	7.9
Tallem Bend	13.7	13.6	11.9	9.7	8.2	6.2	5.3	5.9	7.2	8.8	10.7	12.3	9.5
Whyalla	18.6	18.3	16.9	13.9	10.3	8.3	6.9	7.8	9.8	12.1	14.5	15.9	12.8
Yongala	13.2	12.9	10.8	7.2	4.5	2.9	2.3	2.1	4.0	6.2	9.1	11.4	7.2

The highest temperature recorded in South Australia was 50.7°C at Oodnadatta on 2 January 1960, and the lowest —8.2°C at Yongala on 20 July 1976.

#### HUMIDITY

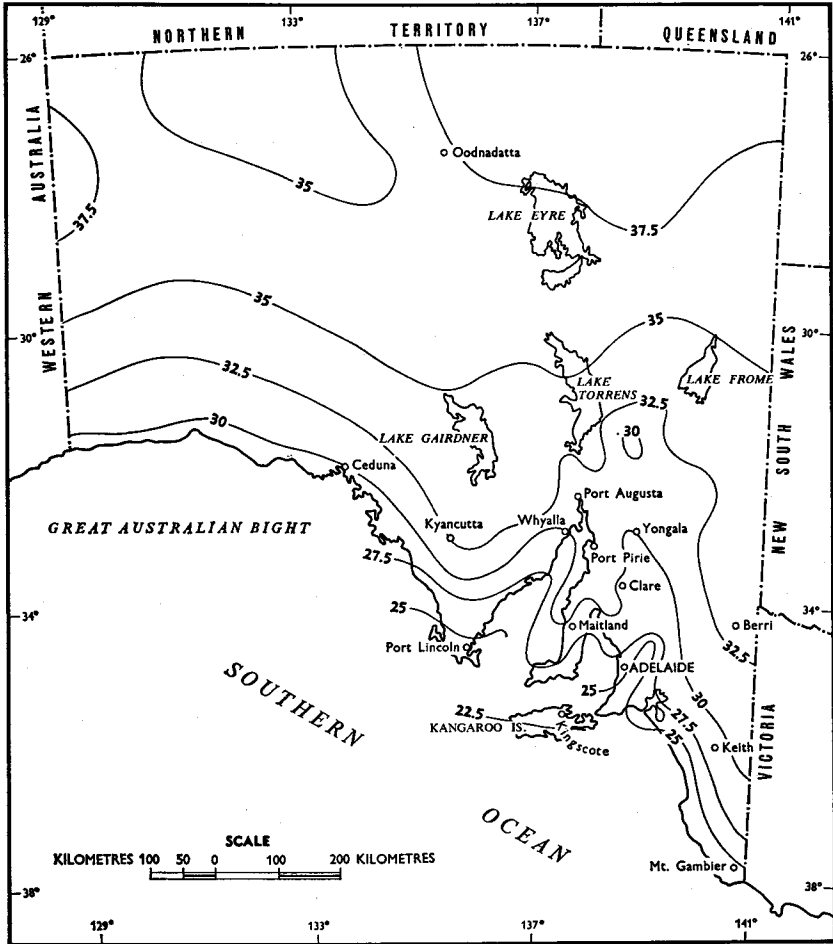
'Relative humidity' at a particular temperature is the ratio of the actual vapour pressure to the saturated vapour pressure (at that temperature) expressed as a percentage. Since relative humidity depends not only on the actual water vapour content of the air but also on air temperature, there is a tendency for highest relative humidities to be associated with low temperatures during the early morning hours, and conversely, the lowest relative humidity values tend to occur during the warmest part of the afternoon when measurements of under 20 per cent are not uncommon.



The average index of mean relative humidity has been derived from the ratio of the average 9 a.m. vapour pressure to the saturation vapour pressure at the average mean temperature. Being thus related to the mean temperature this value of relative humidity is a good approximation of the daily mean.

### SOUTH AUSTRALIA MEAN MAXIMUM TEMPERATURE: JANUARY

Based on all years of records  
Isotherms in ° Celsius

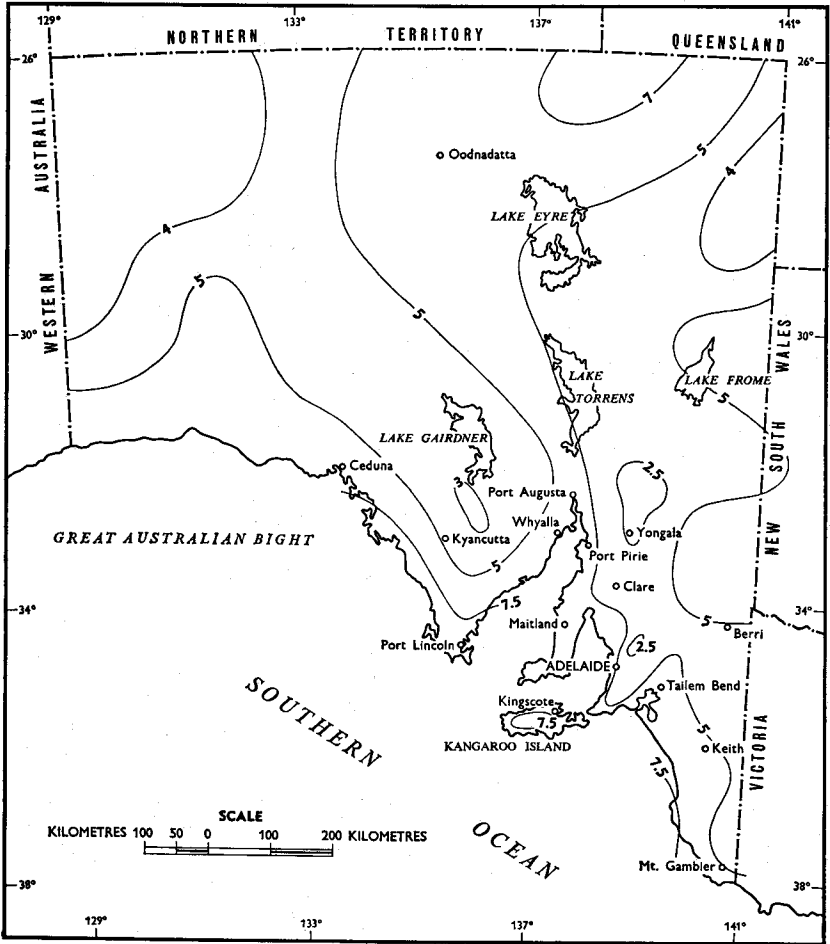


SCALE  
KILOMETRES 100 50 0 100 200 KILOMETRES

With an average index of mean relative humidity of under 35 per cent in summer increasing to about 50 per cent in winter, the far northern parts of the State experience the lowest values of relative humidity in South Australia. By comparison, most southern parts of the State have an average index of mean relative humidity of about 45 per cent to 55 per cent in summer, increasing to about 70 per cent to 80 per cent in winter.

### SOUTH AUSTRALIA MEAN MINIMUM TEMPERATURE: JULY

Based on all years of records  
Isotherms in ° Celsius



## SUNSHINE AND CLOUD

The annual average sunshine total (as determined from records of sunshine and average cloudiness) ranges from about 2 000 hours along parts of the southern coastal fringe to 3 500 hours near the northern border of the State. Adelaide has an average of just over 2 500 hours a year.

December and January tend to be the sunniest months with daily averages reaching a maximum of about 10.5 hours over interior districts. During the June and July winter months daily averages are still as high as seven hours in the far north interior, but over the southern coastal fringe the daily average of just over eight hours for summer is reduced to about three hours during winter.

## WIND

During the summer months winds from the southern quadrants are the most prevalent and a well defined sea breeze is common along the whole of the coastal fringe from October right through to about April and May. During the winter months the north-westerly predominates, but the proportion of west to south-west winds is also relatively high.

South Australia is not subject to the type of sustained wind storms associated with tropical cyclones as in Queensland and tropical Western Australia. However, gales do occur from time to time along the coast during the winter and cause minor damage to buildings and foreshore works. Probably the most noteworthy storm was on 11 April 1948 when wind averaged over 60 km/h for six hours in central and south-eastern districts, the naval frigate *Barcoo* was grounded at Glenelg and the Glenelg jetty was wrecked. Frequent gusts over 100 km/h and a strongest gust of 130 km/h were recorded in Adelaide.

Most violent wind squalls are associated with thunderstorms and usually last only a few minutes. It was during such squalls that the highest wind gusts were recorded in South Australia—158 km/h at Woomera on 4 November 1969, 148 km/h at Leigh Creek on 3 December 1953 and also at Adelaide on 13 July 1964.

## EVAPORATION

Evaporation is determined by measuring the amount of water evaporated from a free water surface exposed in a standard tank or pan. Before 1967, measurements were made using the sunken tank method *i.e.* tanks, each 0.91 metres internal diameter and 0.91 metres deep, sunk into the soil so that the rim was only 25 millimetres or so above the ground.

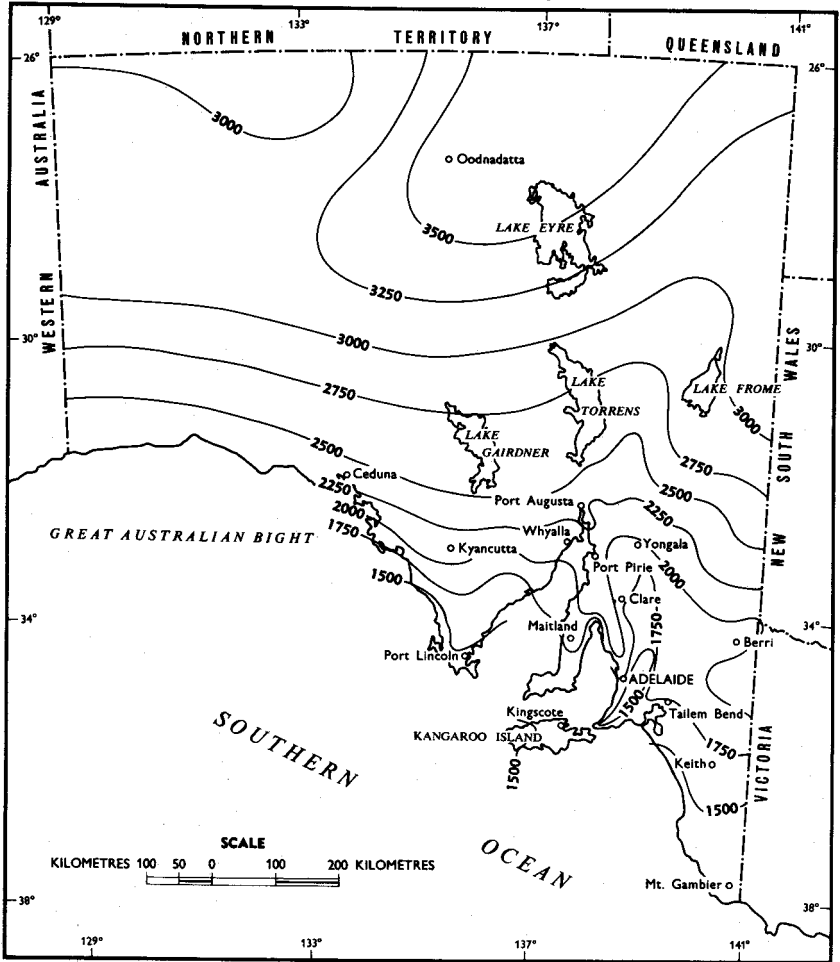
Early in 1967 a change-over to the American Class A evaporation pan was made after this instrument had been accepted as the standard evaporimeter for Australia. These pans, 1.22 metres in diameter and 0.3 metres deep, are placed above ground level on wooden pallets. Wire mesh guards are fitted to the pans to prevent birds and stray animals drinking from them. All evaporation figures quoted in this section are for a Class A pan fitted with a bird guard.

The annual average evaporation varies from below 1 500 millimetres in parts of the Mount Lofty Ranges and the lower South East to greater than 3 500 millimetres over an area around and to the north east of Oodnadatta in the far north of the State (see map on page 14).

About half the State has an average evaporation rate exceeding 3 000 millimetres a year. This high rate is all the more significant when it is considered that the average annual rainfall over most of the northern half is less than 150 millimetres.

### SOUTH AUSTRALIA AVERAGE ANNUAL EVAPORATION

Based on all years of records in millimetres,  
for a Class A Pan with Birdguard



#### CLIMATE OF ADELAIDE

The longest continuous series of weather observations in the Southern Hemisphere started in Adelaide in November 1836 when Sir George Kingston commenced rain gauge readings at his property on the corner of Grote Street and West Terrace. Unfortunately,



## Climatological Data, Adelaide (continued)

## (2) Rainfall and Wind

Month	Rainfall				Wind			
	Mean	Highest Monthly and Yearly Total	Highest in One Day	Mean Days of Rain (a)	Average Speed	Highest Gust	Prevailing Direction	
							9 a.m.	3 p.m.
Years of Record	139	139	139	139	21	60	58	58
	mm	mm	mm	No.	km/h	km/h		
January	20	84	58	4	13	116	SW	SW
February	21	155	141	4	12	106	NE	SW
March	24	117	89	5	11	126	S	SW
April	44	154	80	9	11	130	NE	SW
May	68	197	70	13	11	113	NE	NW
June	71	218	54	15	12	108	NE	N
July	66	138	44	16	12	148	NE	NW
August	61	157	57	16	13	121	NE	SW
September	51	148	40	13	13	111	NNE	SW
October	45	133	57	11	13	121	NNE	SW
November	31	113	75	8	13	130	SW	SW
December	26	101	61	6	13	121	SW	SW
Year	528	786	141	120	12	148	NE	SW

## (3) Other Conditions

Month	Mean Daily Sunshine	Clear Days (b)	Mean Amount Of Cloud (c)	Days of Fog	Days of Lightning	Amount of Evaporation (d)	Vapour Pressure 9 a.m.	Mean Barometric Pressure (e)
Years of Record	95	58	107	77	105	11	108	121
	Hours	No.		No.	No.	mm	mb	mb
January	10.0	12.4	3.1	0.0	2.0	256	11.9	1 013.2
February	9.3	10.9	3.3	0.0	1.7	219	12.5	1 014.3
March	7.9	10.9	3.5	0.0	1.7	177	12.0	1 017.2
April	6.0	6.6	4.5	0.0	1.4	121	11.5	1 019.9
May	4.8	4.6	5.1	0.4	1.5	79	10.8	1 020.1
June	4.2	4.0	5.3	1.1	1.5	57	10.0	1 019.9
July	4.3	3.6	5.2	1.3	1.4	61	9.5	1 020.0
August	5.3	4.9	4.9	0.6	1.7	80	9.7	1 019.0
September	6.2	5.7	4.6	0.2	1.7	111	10.0	1 017.7
October	7.2	5.7	4.5	0.0	2.6	164	10.2	1 016.0
November	8.6	6.6	4.2	0.0	3.0	198	10.5	1 015.0
December	9.4	9.0	3.7	0.0	2.2	245	11.3	1 013.3
Year	6.9	85.0	4.3	3.6	22.4	1 769	10.5	1 017.1

(a) Days receiving 0.2 mm or more of rain. (b) With less than two-eighths cloud. (c) Scale 0 (clear) to 8 (overcast) at 9 a.m. and 3 p.m. daily. (d) From Class A pan (period 1967-1977). (e) Mean of 9 a.m. and 3 p.m. readings corrected to sea level.

## Temperature

In the summer months, Adelaide maximum temperatures frequently exceed 30°C and from time to time 'heat waves', with readings at or near 35°C for several consecutive days, are experienced. The outstanding heat wave was in January 1939 when fourteen days out of fifteen exceeded 30°C and of those fourteen days thirteen exceeded 35°C and six exceeded 40°C. During this heat wave the record temperature of 46.8°C recorded on 26 January 1858 was exceeded, first on 10 January 1939 when the temperature reached 47.2°C and then two days later on 12 January when the highest ever temperature of 47.6°C (46.1°C in the Stevenson Screen) was recorded.

July is the coldest month, when the mean maximum is only 15°C with the extreme lowest minimum recorded in the Greenwich Stand being 0°C (0.6°C in the Stevenson Screen) on 24 July 1908. August is only slightly warmer than July, but after August steadily rising temperatures are experienced.

### **Rainfall**

Adelaide's summer rainfall is light and unreliable. The average monthly fall from January to March is under 25 millimetres and completely rainless months in this period are not uncommon. In fact, each of the five months December to April has at some time been recorded as completely dry, and in the period January to March 1893 there were sixty-nine consecutive rainless days. On the other hand, heavy rain is occasionally experienced at this time of the year and on 7 February 1925 rainfall was 141 millimetres—a record for one day.

Each month from May to September rainfall averages over 50 millimetres and in this period the rain is fairly reliable. June is the wettest month but the average is still under 75 millimetres for the month. The 139 year annual rainfall average is 528 millimetres, and annual totals have ranged from a low of 257 millimetres in 1967 to a high of 786 millimetres in 1851.

### **Other Conditions**

Relative humidity in Adelaide is at its lowest in January when the average 9 a.m. reading (which approximates the average for the whole 24 hours) is 41 per cent. This low value of the relative humidity reduces the severity of heat waves in Adelaide. In fact, the relative humidity is very low for most months of the year, only becoming higher in winter, with the average at 9 a.m. reaching 75 per cent in June.

Adelaide is not subject to violent sustained wind storms. The prevailing wind during the day in summer is a south-westerly sea breeze which is well defined throughout the months October to April. Another common wind during summer, known locally as the 'gully wind', blows from the east or south-east out of the Adelaide hills (more particularly at night) and becomes very strong and gusty at times. In winter the prevailing wind during the day is north-westerly with a high proportion of south-westerlies.

## **1.3 NATURAL RESOURCES**

### **MINERALS**

Barite is obtained from about twenty localities in Adelaidean rocks in the Flinders Ranges. The Oraparinna mine, the largest producer of industrial grade barite in Australia, is now operating full-time under new ownership. Oil drilling grade barite is mined from Willyama Complex rocks at Mount Mulga, north of Olary.

The largest part of Australian reserves of gypsum are located in South Australia. The deposits have in general formed in coastal basins, the largest of these occurring at Lake MacDonnell and on Kangaroo Island. Other deposits, mainly of seed gypsum, are found inland at Moonabie, Lake Fowler, Cooke Plains and along the River Murray.

High grade kaolin is produced from weathered shales at Birdwood and altered metasediments at Williamstown in the Mount Lofty Ranges. Sillimanite and damourite are also obtained from the open-cut at Williamstown. White burning plastic clays are mined near Adelaide at Golden Grove, One Tree Hill and McLaren Vale and clays for refractory and ceramic uses are supplied from Woocalla, Tregolana and Longwood.

High quality dolomite for steel making is quarried at Ardrossan and for glass making at Tantanoola.

Feldspar is being mined by two operators from pegmatites north of Olary. Flint for ceramic and grinding purposes is harvested from the beaches near Port MacDonnell and screened from clay at Longwood.

Conditions in South Australia are ideal for the production of salt from sea water by solar evaporation. Large solar salt works are located at Dry Creek (near Adelaide), Port Price (Gulf St Vincent), and Whyalla. Salt is also harvested from several saline lakes, in particular Lake Bumbunga and Lake MacDonnell.

The opal fields at Coober Pedy and Andamooka supply most of the world's precious opal. The estimated value of raw opal production in South Australia was \$30 million in 1977. Most of this is exported to Hong Kong, Japan, the USA and Germany.

South Australia contains many deposits of limestone and apart from quarries worked for construction purposes the main deposits are at Rapid Bay for steel making, Angaston and Klein Point for cement, Mount Gambier for whiting and building stone, and Penrice for chemicals.

Magnesite is mined on a small scale, north-west of Copley.

Monumental stone is produced from white marble at Angaston, black granite from Black Hill, blue granite from Kingston, brown granite from Sienna, and red granite from Calca. Billiard table slate and paving stone is supplied from Mintaro and a new operation in the northern Flinders Ranges. Walling and paving stone is also obtained from Willunga and Wistow.

Nephrite jade occurs as lenses and pods, north-west of Cowell and banded calcite for ornamental purposes has formed in narrow veins near Warrioota in the Flinders Ranges.

Talc is produced from Mount Fitton in the Flinders Ranges, and Gumeracha and Lyndoch in the Adelaide Hills. The Tumby Bay deposit has been re-opened on a small scale.

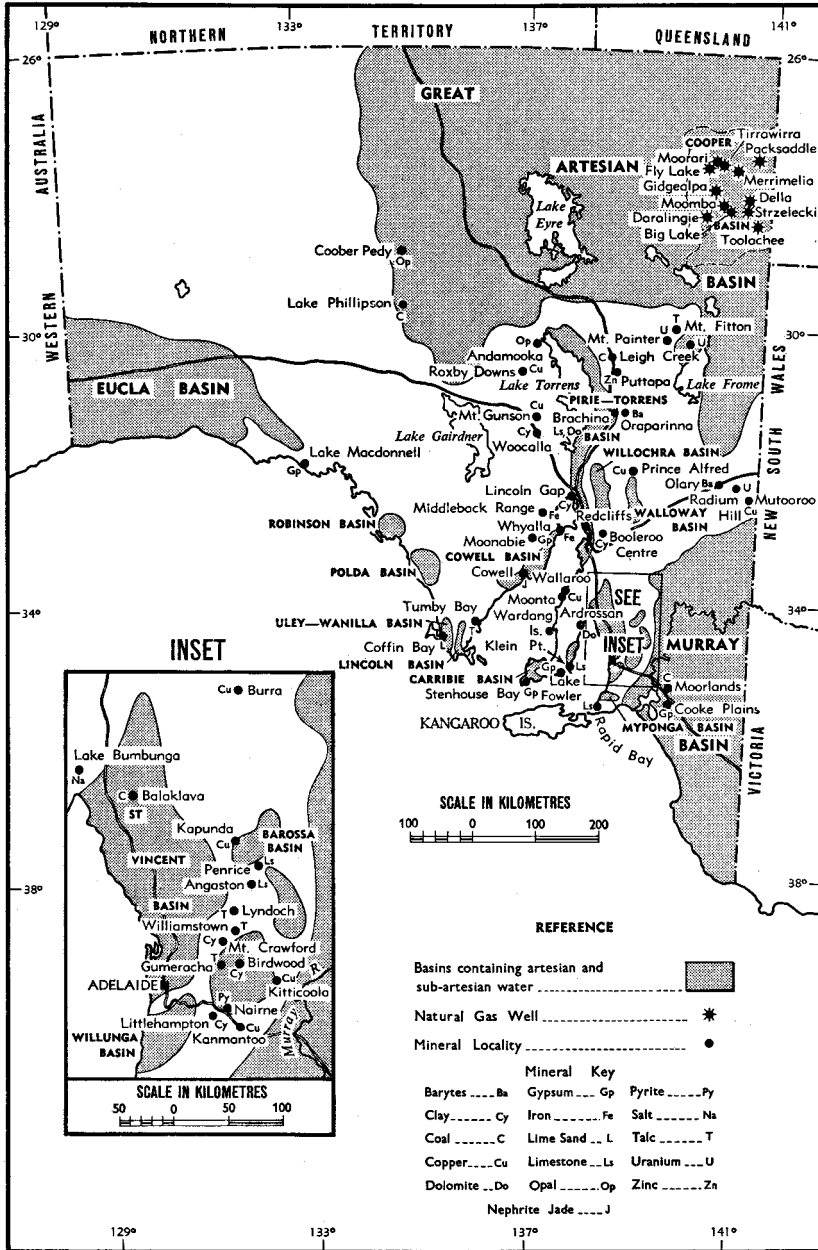
Iron ore, South Australia's most important mineral is mined in the Middleback Ranges of upper Eyre Peninsula. These ranges lie to the west of Whyalla, a coastal port with a steelworks and shipbuilding facilities, and extend discontinuously from Iron Knob in the north to Iron Duke nearly 65 kilometres to the south. In excess of 150 million tonnes of ore have been mined since 1900. Currently production is at the rate of approximately 3.5 million gross tonnes per annum with a waste to ore ratio of 3:3:1.

Copper ore, which was a major income earner for South Australia from the 1840s to the 1920s, is again becoming an important contributor to the economy as the result of increased exploration by the Mines Department and private industry. Copper ore is being mined at Burra and Mount Gunson by open-cut mining methods and, until recently, at Kanmantoo. Kanmantoo Mine is 55 kilometres south-east of Adelaide and was being mined at the rate of 870 000 tonnes of 1 per cent copper ore a year until 30 June 1976 when the mine was placed on a care and maintenance basis, pending improvement in world copper prices. The Mount Gunson Mine is 145 kilometres north-west of Port Augusta and 56 kilometres south-east of Woomera and is being mined at the annual rate of approximately 500 000 tonnes of ore of more than 2 per cent copper. Both mines produced copper sulphide concentrates for export. The Burra Mine is 161 kilometres north of Adelaide and has the treatment capacity for approximately 300 000 tonnes of ore per annum of 1.5 per cent copper. The copper oxide produced at Burra is a premium product and is used for the production of fertilisers, agricultural chemicals and copper sulphate.

Vast deposits of copper-uranium mineralisation have been discovered at Olympic Dam, 80 kilometres north of Woomera and 55 kilometres west of Andamooka. Copper



SOUTH AUSTRALIA  
MINERAL RESOURCES AND  
ARTESIAN WATER



mineralisation has been intersected at a depth of approximately 350 metres in six drill holes to disclose a continuous body of mineralisation at least 1500 metres in length and up to 170 metres wide; average grades exceed 1 per cent copper and 0.45 kg/tonne uranium oxide.

High grade zinc ore is being mined at Puttapa 30 kilometres south of Leigh Creek.

Substantial deposits of uranium have been discovered in the Lake Frome region but no mining has commenced.

Permian sub-bituminous coal has recently been defined by drilling at Lake Phillipson, 80 kilometres south of Coober Pedy. The deposit consists of a number of seams in two main elongated troughs which together total approximately 2 000 million tonnes, the largest of South Australia's known deposits. The Leigh Creek (Triassic) and Inkerman (Tertiary lignite) deposits are held by the Electricity Trust of South Australia, and together these total 1 000 million tonnes. All other known coal deposits near the surface are Tertiary lignites and their combined total is less than 1 000 million tonnes. Leigh Creek is the only deposit which is being mined at present and to date approximately 33 million tonnes of coal have been mined for power generation at the Playford Power Station in Port Augusta. Large deposits occur in both the Cooper Basin and Pedirka Basin but these are very deep (1 000—2 000 metres). An *in situ* process is most likely for the utilisation of this coal and, in the case of the Cooper Basin, no mining can be attempted before the gas or oil is depleted from the structure.

A special article on the Minerals of South Australia was included on pages 21-39 of the *South Australian Year Book* 1975.

#### PETROLEUM RESOURCES

Before the late 1940s South Australia had no satisfactory indigenous source of primary energy. A number of deposits of sub-bituminous coal including those at Leigh Creek, Moorlands, Balaklava and Lake Phillipson were known but none of these were considered worthy of development.

Industrial unrest in the late 1940s led to a growing awareness of the State's dependence on eastern States coal and foreign oil and led to the development of the Leigh Creek coalfield.

The search for petroleum was actively encouraged and assisted from the mid-1950s. This culminated in the discovery of the Gidgealpa gas field in 1963 by Santos Limited and the then Delhi Australian Petroleum Limited.

Following the discovery of a second major gas field at Moomba, a pipeline was constructed from Moomba to Adelaide and came into operation late in 1969.

There was a revival of petroleum exploration activity in the very early 1970s as a result of a number of farmouts being negotiated for various areas of the Cooper Basin. Following further gas discoveries an agreement was made with the Australian Gas Light Company Limited to supply gas to the Sydney area, conditional upon the discovery and proving of sufficient gas to meet their requirements and needs over a 25 year period. The required amount of gas was shown to exist by late 1972 with the discovery of new gas fields. Some sixteen gas fields in the Cooper Basin have been proven and will be brought into production over the next 25 years. The Cooper Basin has potential for still further petroleum discoveries.

Total reserves of petroleum are estimated to be 100 000 million cubic metres of natural gas and 50 million cubic metres of petroleum liquids.

Legislation was passed to expand the role of the Pipeline Authority of South Australia (PASA), formerly the Natural Gas Pipeline Authority of South Australia, to become the

buyer of gas at the Cooper Basin gas treatment plant at Moomba and the seller of gas at the city gate. PASA has negotiated contracts for increased supplies of gas to Adelaide; its former role was as a transporter of gas only.

### UNDERGROUND WATER

South Australia is not endowed with a generous rainfall. Only the southern portion of the State, approximately that part south of Port Augusta, receives more than 250 millimetres of rain annually and of this, only quite small areas of the South East and the Adelaide Hills have an annual rainfall exceeding 600 millimetres. The northern part of the State, comprising approximately three-quarters of the total area, is largely arid with an average annual rainfall of less than 250 millimetres. As a consequence South Australia is notably deficient in rivers. There is only one large permanent river, the River Murray, flowing through it while the few streams commencing in the Flinders and Mount Lofty Ranges are short, and seasonal in flow.

Water supply for the metropolitan area of Adelaide is derived from reservoirs in nearby ranges and from the River Murray. Reticulation of surface supplies now covers most of the Adelaide Plains, Yorke Peninsula and portions of Eyre Peninsula and the Upper South East (see map on page 19). In addition there are a number of small areas whose reticulated supplies are derived from groundwater sources by means of bores.

Groundwater suitable for various purposes is available in many areas. Pressure water, also referred to as artesian water, is generally confined to the several sedimentary basins located throughout the State. The largest of these, the Great Artesian Basin, 1 700 000 square kilometres in area, of which 310 000 square kilometres lie in the north-east part of South Australia, covers nearly one-third of the State. The intake area for the principal water-bearing bed lies along the western margins of the highlands in eastern New South Wales and Queensland and natural outlets for the water are mound springs which, in South Australia, lie to the west and south of Lake Eyre. Deep bores are necessary to tap these waters and very large flows have been obtained. However, the water is generally unsuitable for irrigation because of its chemical composition and its use is confined to watering stock.

The Murray Basin covers 73 000 square kilometres in South Australia and extends into Victoria and New South Wales. The southern and central portions of the Basin contain waters suitable for all purposes while the water quality deteriorates steadily in a north and north-westerly direction from the southern intake area. Very large yields can often be developed from the bryozoal limestone aquifers at shallow depths and also in some places from sand dune and other local aquifers. Groundwater is used to supply the towns throughout the southern area and is also developed for irrigation and stock. At Padthaway near Naracoorte increasing use is being made of flood irrigation for vines and pastures from a high-yielding shallow aquifer.

The Eucla Basin in the south-west of the State lies partly in South Australia and partly in Western Australia. However, because of the low fertility of the area the Basin is of little importance although some of the water, which is of poor quality, is used for watering stock.

The Adelaide Plains Basin is part of the larger St Vincent Basin, lying between the Mount Lofty Ranges and the shores of Gulf St Vincent. Good quality water is obtainable in certain portions of this Basin; it is heavily used for market gardening on the northern Adelaide Plains. The danger of serious depletion of the aquifers by overpumping in this area has been recognised and use is now subject to government control. In the Adelaide metropolitan area groundwater is used from time to time to supplement reticulated reservoir water. Bores constructed for this purpose have been pumped to an aggregate rate of 45 megalitres a day for up to seven months.

The Pirie-Torrens Basin is a long narrow basin lying west of the Flinders Ranges between Port Broughton and Port Augusta and extending north to the northern end of Lake Torrens. The variable quality of the water from this Basin, however, limits its use mainly to watering stock. The high salinity of the Cowell Basin on the west coast of Spencer Gulf causes it to be little used and of minor interest only. Several small basins, Walloway, Willochra, Willunga, Milang, Myponga, Hindmarsh Tiers and others are utilised to various extents for stock and pastoral uses and where the water is suitable it is being increasingly used for irrigation.

Groundwater outside the well-defined sedimentary basins is often available in useful quantities but its location is not so readily defined. Many bores in folded rocks of the Mount Lofty Ranges and elsewhere provide water supplies for towns, farms and for domestic purposes. Much of the extensive water reticulation of Eyre Peninsula is derived from shallow groundwater basins, Lincoln Basin, Uley-Wanilla Basin and Polda Basin together yielding more than 13 megalitres a day.

It is estimated that the usage of underground water in South Australia exceeds 750 megalitres daily for all purposes. The exploration for, and development of, underground water resources is a continuing responsibility of the South Australian Department of Mines which provides the services of geologists and an extensive drilling organisation.

## SOILS

### General

There are many kinds of soils in South Australia ranging from free-flowing sands such as the coastal dunes, to the shrinking and swelling clays of which good examples are found near Bordertown and Tanunda, while some show a marked textural contrast with depth, such as the sand over clay soils of the South East. Not only do these soils differ in their visible attributes, such as their colour, texture, stoniness and degree of slope, but also in the properties, largely unseen, of their chemistry, their relations to air and water, and to the micro-organisms which form the soil flora and fauna.

Undoubtedly the most widespread deficiency is phosphorus—low phosphorus contents are typical of South Australian soils. The gravelly ironstone soils of Kangaroo Island and parts of the Adelaide Hills are among the most impoverished in the world, containing only between 5 and 40 parts per million of phosphorus in their surface soils, whereas the red-brown earths in their natural state contained 200 to 300 parts per million. These figures do not compare favourably with those for the soils of Great Britain, in which 600 parts per million of phosphorus is common. However, soils are changed by the treatment they receive and the phosphorus content of soils in some areas has been so built up over the years that its residual effect is now sufficient to produce a good cereal crop without the further addition of superphosphate.

On the other hand, prolonged clean cultivation in vineyards and frequent cropping in wheatland areas causes deterioration of the structure of surface soils and depletion of nitrogen. The latter deficiency can be remedied by the proper use of legumes, such as medics and clovers, during the pasture phase of the crop rotation in wheatlands. Nitrogen is one of the most mobile of the nutrient elements in soil and is highly susceptible to differences in management.

Some soils which seem to be unique to Australia, such as the mallee soils or calcareous earths, are well represented in this State. The irrigated horticultural settlements established on these soils along the River Murray have been notably successful, but where dry land arable farming is practised these soils are susceptible to wind erosion.

There are other important features that affect plant growth, such as acidity and alkalinity, supply of trace elements and so on. Information about these and their

importance in different localities can be obtained from the South Australian Department of Agriculture and Fisheries and in a bulletin published by the Department entitled *Soils of South Australia's Farm Lands*. The extent of country covered by the different soil groups is illustrated by the *Atlas of Australian Soils* which is being compiled by the Division of Soils, Commonwealth Scientific and Industrial Research Organization (CSIRO). The first sheet of this Atlas, published in 1960, includes the areas of higher rainfall country in South Australia and refers to the many soil surveys made in this State.

A special article on the Soils of South Australia was included on pages 21-31 of the *South Australian Year Book* 1969.

### Building Soils

The building soils of Adelaide and environs are of varying qualities as to stability and bearing capacity. In certain locations shrinking and swelling soils have resulted in considerable foundation failures. These soils, commonly known as Bay of Biscay soils, occur at their worst in areas adjacent to the Mount Lofty Ranges. The best building soils are found in areas along the coast and in a small area to the east of the city.

## 1.4 FLORA AND FAUNA

### FLORA

A broad division of vegetation types is formed by Goyder's Line which represents approximately the 250 millimetre annual isohyet. To the north of the Line, in the Eremaean Province, lies about 80 per cent of the State, experiencing arid to desert conditions where short, erratic growing seasons prevail. Areas to the south, in the temperate region, have climates geared to an equable seasonal cycle of winter rainfall and summer drought.

#### Eremaean Areas

These vast areas of inland South Australia are not well known botanically. Vegetation ranges structurally from low layered woodland, through shrub savannah, to exceedingly sparse vegetation of very low stature (shrub steppe). As in arid situations elsewhere throughout the world, therophytes are well represented and after rain these may transform the scene with prolific but transient herbage. The woody perennial vegetation is of genera adapted to the dry conditions. Predominant trees and shrubs are frequently species of *Acacia* (mulga, myall, ironwood) *Cassia*, *Grevillea* etc. but other genera (*Hakea*, *Myoporum*, *Casuarina*, and less frequently *Eucalyptus*) are often involved. Some species such as the desert oak achieve a stature comparable with large temperature zone trees. Chenopod shrubs (Blue Bush, Salt Bush) are often prominent in the shrub stratum, and *Triodia* (Porcupine Grass) in the herbaceous cover, but there is considerable diversity in the Eremaean flora. The development of cattle and sheep grazing industries and overstocking for long periods, especially in times of drought, has led to the depletion of, and alteration to, much of the vegetation of this area.

#### Temperate Areas

In general, vegetation characteristics of the temperate zone of South Australia succeed each other in a fairly predictable sequence from the highest to the lowest rainfalls. Under the high and intermediate rainfalls (about 750-1 000 millimetres) dry sclerophyll forest is well developed, particularly in the Mount Lofty Ranges, where it constitutes a western outlier of the dry sclerophyll forest system occurring in eastern Australia. *Eucalyptus obliqua* and *Eucalyptus baxteri* predominate, but other species such as *Eucalyptus rubida*

(the candlebark) are sometimes prominent. Such forest is replete with lesser trees *Acacia melanoxylon* (blackwood) at a lower canopy level and a rich array of sclerophyllous shrubs and sub-shrubs beneath. Most species have generic analogues in equivalent dry sclerophyll forests of both eastern and western Australia. Sclerophyll forest in South Australia has been cut over extensively and is being invaded by aliens. Lower rainfall areas down to about 400 millimetres per annum support mainly savannah woodlands and layered woodlands with South Australian bluegum (*Eucalyptus leucoxylon*) and peppermint gum (*Eucalyptus odorata*) as predominant trees. Associated trees include river redgum (*Eucalyptus camaldulensis*) especially along river and creek frontages, sheoak (*casuarina* spp.), and manna gum (*Eucalyptus viminalis*). In these vegetations the grass stratum is expressed and the shrub stratum rather suppressed. These vegetations are now almost entirely replaced by agricultural areas.

In some places on the lower rainfall extreme of the temperate zone, variant vegetations occurred. These included substantial conifer (*callitris* spp.) and conifer-eucalypt forests and woodlands (particularly in the Flinders Ranges), and areas of pure savannah, as once occurred about Burra.

The simple division of the State into Eremaean and temperate areas needs qualifying on two counts:

(i) *Heath*. Certain higher rainfall temperate areas do not support the expected vegetation as a consequence of limiting soil fertility. The Coonalpyn Downs area is an example. Here low nutrient dune fields are superimposed on the landscape and support only a heath vegetation where the rainfall regime is suitable for woodland. Such 'light land' is the scene of contemporary agricultural expansion.

(ii) *Mallee*. Intercalated between the Eremaean and temperate systems proper, there is developed in South Australia extensive mallee vegetation, dominated by eucalypts, the various stems of which all rise from underground lignotubers. The term 'mallee' refers both to eucalypt species exhibiting this growth habit, and to vegetation dominated by such species. Mallee vegetation is associated in its temperate reaches with heath, and in its Eremaean extensions with various vegetation types.

A more detailed description of the vegetation was included on pages 26-37 of the *South Australian Year Book* 1967 and should be referred to for a description of the plant species included in the vegetation formations shown in the map on page 25 of this issue.

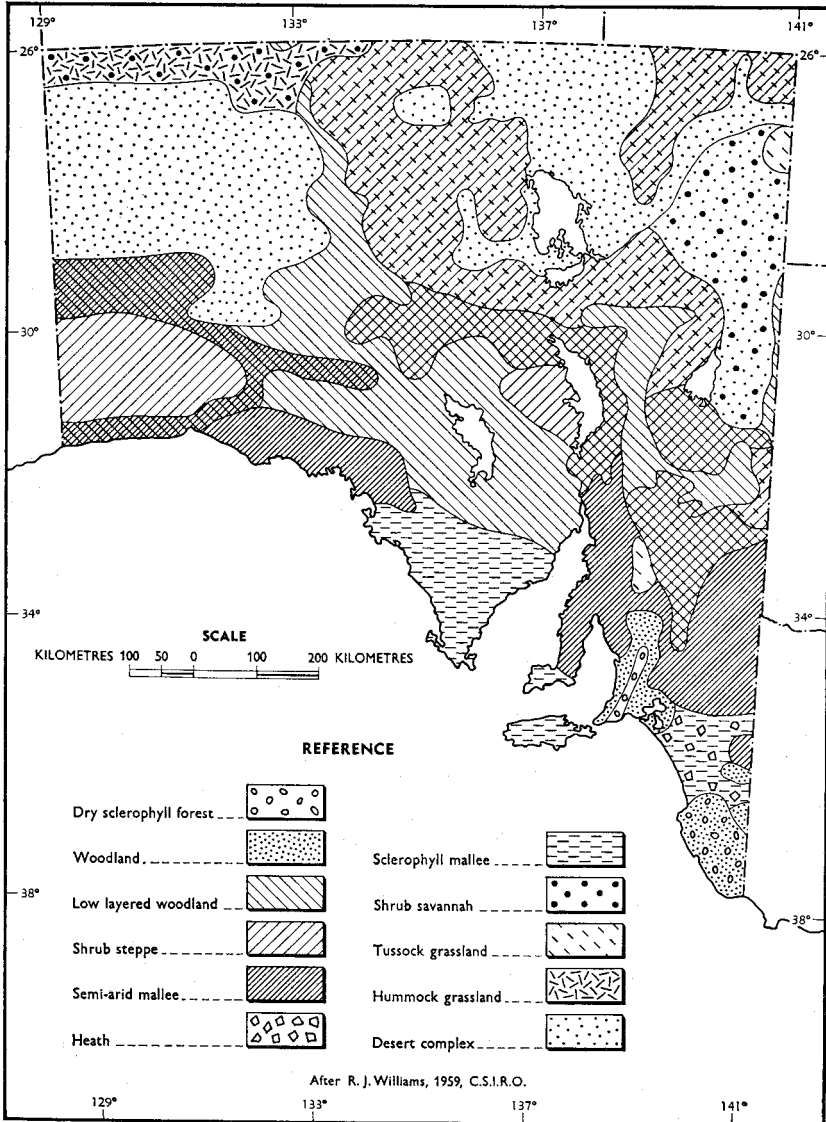
## FAUNA

South Australia, centrally situated and sharing borders with every other mainland State, is in a sense the zoological cross-roads of the continent. A number of typically western, eastern, and northern species extend to some point within the State, which has few species that are uniquely South Australian.

Only 8.3 per cent of South Australia—a fragmented, southern fringe—is favoured with an annual rainfall of 400 or more millimetres; more than 80 per cent receives 250 millimetres or less. The moister areas are restricted mainly to three peninsulas, to Kangaroo Island and the extreme south-east and these are divided by gulfs, straits, and stretches of drier country. Further north, the semi-arid to arid zone is deeply cut into and split by Spencer Gulf and the central highlands. Because of this geographical background the distribution of South Australian fauna, notably of birds and reptiles, is very complex.

Highly developed agriculture in the limited favourable areas and the wide-spread pastoral occupation beyond have depleted the fauna, particularly the mammals. A series of national parks and reserves is being established which will preserve samples of the various habitat types and, it is hoped, their indigenous fauna. The National Parks and

SOUTH AUSTRALIA  
VEGETATION MAP



Wildlife Service controls over three million hectares on the mainland (see Part 6.4), and administers the Flinders Chase Reserve (549 square kilometres) on Kangaroo Island which is free from the introduced fox.

The land mammals of South Australia at the time of European settlement numbered about 90 species—some 38 per cent of the total Australian mammal fauna. The two monotremes have survived; the spiny ant-eater is wide-spread but nowhere common, while the platypus (once found in the River Onkaparinga as well as in the River Murray) is extremely rare except where it has been introduced in Flinders Chase. The marsupials have been affected most severely; more than a quarter of the 50 or so species are now extinct in South Australia although a number of these survive beyond the State. Originally the marsupial fauna was relatively rich with some 45 per cent of the total number of Australian species represented.

Marsupials that are still common are the brushtailed possum (*Trichosurus vulpecula*) and the western grey kangaroo (*Macropus fuliginosus*). In the dry interior the red kangaroo (*Megaleia rufa*) at times greatly increases in numbers, probably because of changes caused by livestock grazing and the provision of extra water. Today South Australia is almost the sole custodian of the hairy-nosed wombat (*Lasiorhinus latifrons*) which is still numerous in the far west of the State but elsewhere the species has been reduced to a few small isolated colonies.

Of the native placental mammals possibly one of the 15 or so species of bats and three or four of the 18 rodents have become extinct.

A special article on the mammals of South Australia was included on pages 42-9 of the *South Australian Year Book* 1970.

About 400 of the 700 species of Australian birds have been recorded in the State, a number that includes 40 or more vagrants and non-breeding visitors. Many species have declined greatly since settlement but probably not more than two have become extinct. The diminutive Kangaroo Island emu disappeared soon after the European settlement and the night or spinifex parrot (*Geopsittacus occidentalis*) is probably extinct in South Australia.

Many species of birds can be observed close to Adelaide in the Mount Lofty Ranges and on Kangaroo Island. Mallee areas with their lower rainfall are moderately rich in bird life although the removal of native flora has caused the disappearance of many in certain districts. Within the State may be found the boundaries between numerous western and eastern species and sub-species of birds.

A special article on the birds of South Australia was included on pages 28-40 of the *South Australian Year Book* 1972.

Well over 100 species of reptiles have been recorded. Of the few that are peculiar to the State, the white dragon lizard (*Amphibolurus maculosus*) found on the salt-encrusted margins of Lake Eyre and other inland playas is of particular interest. Undescribed species of lizards are known to occur in the Flinders Ranges. A special article on the reptiles of South Australia was included on pages 32-42 of the *South Australian Year Book* 1973.

The nineteen species of frogs include one that is restricted to the State. This number is only 16 per cent of the Australian frog fauna (123 species) and reflects, in large degree, the predominantly arid nature of the State.

Marine and freshwater fishes number about 390 species—not a very rich fauna for a State with a coastline of 4 000 kilometres. There is, however, an abundance of certain species of economic importance. A special article on the freshwater fish of South Australia was included on pages 27-34 of the *South Australian Year Book* 1971.



The insects of the coastal regions show affinities with those of similar regions to the east and west, while many of the restricted number of species of the inland extend widely through arid Australia.

Among insect groups that are prominent elsewhere in Australia but are scarce in this State are butterflies and cicadas, while insects that depend on permanent streams or swamps, such as dragonflies and caddisflies, are rather poorly represented. Similarly, few species of freshwater crustaceans occur. In eastern and western Australia hosts of wasps, native bees, jewel beetles and other insects are attracted to the flowers of native shrubs in spring and summer. These insects are less numerous in South Australia largely because of the nature and limited extent of the bushland.

Among the restricted range of insects of the arid interior are a number of interesting forms. Of these certain desert-adapted grasshoppers (*Acridiidae*) are notable. Other groups with specialised species are lacewings (*Neuroptera*) and beetles and moths. Some are never abundant but the populations of others may fluctuate enormously. Moths can prolong the pupal stage to survive dry periods and may emerge in great numbers after heavy rain.

A special article on the insects of South Australian homes and gardens was included on pages 32-42 of the *South Australian Year Book* 1976.

## 1.5 ABORIGINAL CULTURE\*

Long before the arrival of European settlers, the area which today forms the State of South Australia was the traditional home of a number of culturally unique and ancient Aboriginal societies. Our knowledge today suggests that there were almost fifty separate groups, varying in size between several hundred and several thousand individual members, occupying the State at the time of European settlement. The cultural, linguistic and social origins of these groups extend back over 30 000, and perhaps 40 000 years, before the arrival of Europeans. Perhaps not surprisingly, the cultures and traditions of these ancient South Australian societies exhibit a profound and wide-ranging appreciation of landscape and environment with a highly developed knowledge of the ecology and natural resources of this State.

Despite significant cultural differences among these groups there traditionally existed certain common features which enable us to recognise in South Australia three major cultural complexes with several sub-groups discernible within them. These three major cultural groups can be described as the Murray and South East Cultural Complex, Central Lakes Cultural Complex and the Western Desert Cultural Complex. The existence of these three major cultural groupings is also reflected in their monuments and modified landscape features, many of which still remain today.

The three main cultural complexes already identified shared a common economic mode of organisation based upon a traditional hunting and gathering economy. All members of society took part in the collection of food, water and raw materials, and there was little accumulation of surplus. The continuation of human life and society was achieved only by virtue of the knowledge of the actual capabilities of each area of land and an informed extraction of those materials necessary for the continuation of the group. This form of economic practice in turn gave rise to a social organisation with strong emphasis on kinship links and basic rules of marriage and behaviour appropriate to the modes of existence practised by these societies. The cultural artefacts and traditions produced by

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\*Contributed by R. W. Ellis, Department for the Environment.

the major cultural groups exhibit to the outsider broad similarities, but a more detailed examination of these practices and artefacts assists us in discovering significant cultural variation.

Without doubt the most common perception of Aboriginal traditional economy and society is that of relatively unsophisticated hunter-gatherers at the mercy of a harsh and uncompromising environment. In fact, recent anthropological studies have demonstrated that Aboriginal hunting-gathering economy was a highly efficient mode of existence requiring very little effort in comparison with the early agricultural modes which elsewhere in the world developed after the hunting-gathering periods. The efficiency of the hunting-gathering economy was, however, to a large degree, dependent upon an appreciation of the various interactions between climate, geography and ecology which operated within the Australian landscape. Armed with this knowledge, based upon thousands of years of experience, Aboriginal society was rarely the passive agent of the environment in the manner which is often suggested.

In the same way, the complex and highly developed systems of mythology, cosmology and totemism for which the Australian societies are renowned have, as a common feature, the organisation of understanding and knowledge. Beyond their unique and colourful qualities, they are basically methods of systematisation and classification which have developed over a period of perhaps 30 000 years, enabling Aboriginal societies to structure their environment in such a way that every plant, plant system, animal or natural feature had a place in the order of things. This system is in many ways reminiscent of today's scientific task of taxonomical classification and organisation.

It is possible today, despite the loss of much of the traditional knowledge, that through an appreciation of these systems of classification European scientists can themselves discover new insights into the Australian environment which will enable more careful planning of our own future activities.

### **Murray and South East Cultural Complex**

#### *The Landscape*

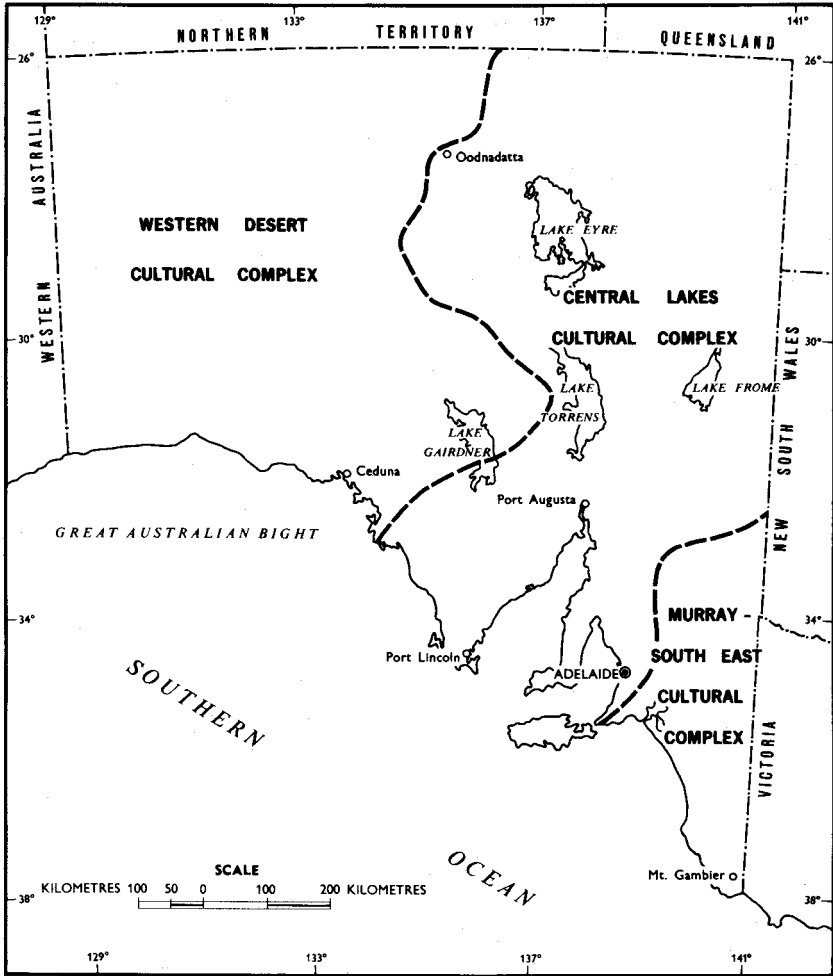
The three major cultural units described for the South Australian prehistoric human environment are to some extent geographically discrete units.

The South East is primarily a gigantic limestone karst landscape with a relatively high rainfall, temperate climate and rich vegetational and faunal associations. To the north this area merges into the less attractive and more arid mallee country, bounded by the course of the River Murray. The South East region and the Murray Trench functioned in South Australia as an important focus for Aboriginal society, with perhaps the most settled and richest Aboriginal cultural associations in prehistoric Australia. The people occupying the Murray Trench, mallee areas to the east, and the South East shared major common cultural features. Those groups with access to the coast or to the permanent waters of the River Murray were able to develop a relatively stable and settled existence, with small traditionally owned units of land and social organisation based upon patrilineal clan groupings.

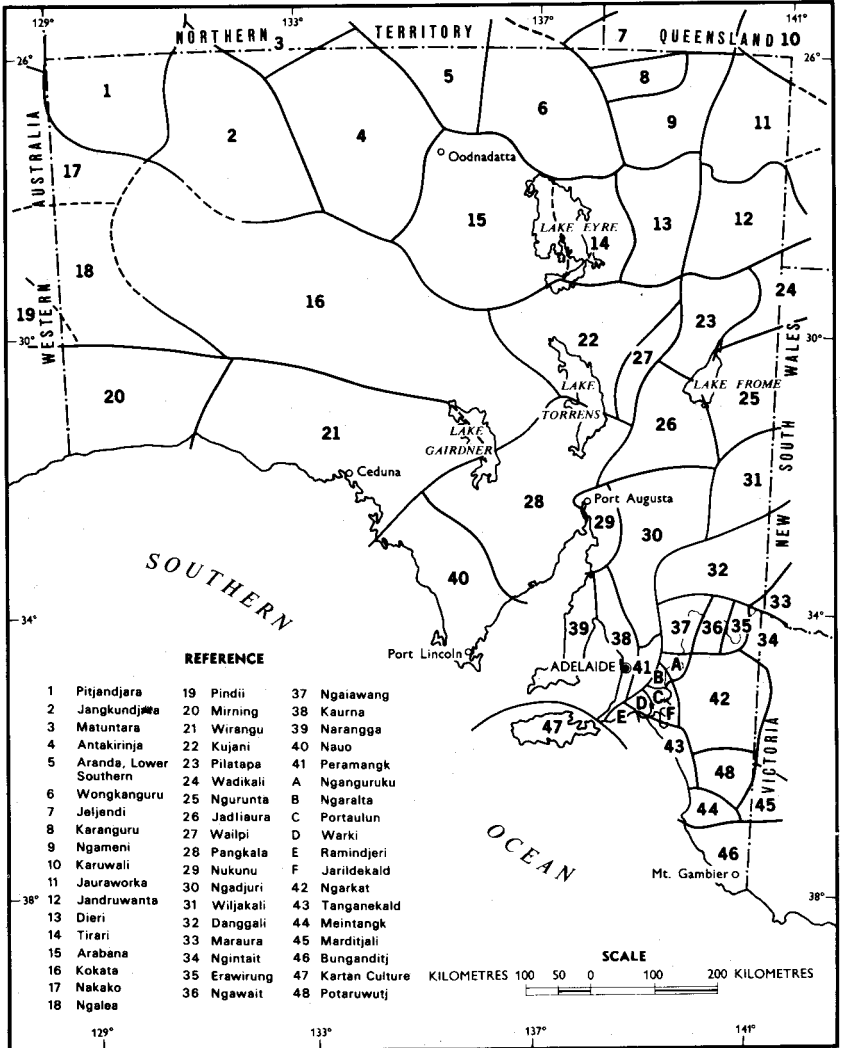
#### *Tribal Groups*

The major tribal groups comprising the Murray and South East cultural complex are illustrated on the map on page 30. Each claimed definite tracts of territory as their own, in some cases based upon an alliance of patrilineal clans which were themselves composed of perhaps a dozen families. Each clan had traditional claim to smaller regions, usually defined upon ecologically determined boundaries.

# SOUTH AUSTRALIAN CULTURAL GROUPS



# SOUTH AUSTRALIA ABORIGINAL TRIBAL BOUNDARIES (After Tindale)



Social organisation in this area was based upon these clans which required group members to marry outside the clan group, thus resulting in important economic and political allegiances with neighbouring clans, binding the groups together for ritual exchange or in trade allegiances. Within this area the Aboriginal societies developed sophisticated artefactual techniques including coiled basketry, development of the returning boomerang and, more particularly along the River Murray, basic watercraft.

#### *Fishing Techniques*

Fishing and hunting techniques in this area involved the use of large nets which depended upon co-operation between individual hunters for their effectiveness. Such co-operative efforts can be recognised in the use of stone fish-traps and, in some cases, snares and nets for the capture of large game. In this area, as elsewhere, double pronged fish spears and, it is thought from archaeological evidence, line fishing techniques were to be discovered. The rich animal life associated with the humid south-east areas in the River Murray and Lakes regions was extensively exploited by Aboriginal groups whose own understanding and awareness of ecological variation and animal habits enabled them to obtain, with relatively little effort, native foods for consumption by group members. The lines of twisted fibre fitted with bone fish gorges and the large nets used for fishing were constructed from species of sedge or rushes growing along the edges of the major freshwater watercourses. In shallow coastal areas, particularly along the Coorong, stone fish traps were also constructed which, operating as tidal traps, resulted in large catches of migrating schools of fish. These stone fish-traps, and in some cases traps constructed of wooden stakes placed across the mouth of tidal creeks, are today still discovered in South Australia and form an important part of our prehistoric heritage.

According to early descriptions, the traps were used during the season for migration of the large schools of fish which moved along the South Australian coast. Once the fish had been trapped by the outgoing tide they were clubbed or speared by the Aboriginals and cast upon the beach where they were collected for cooking and consumption. While little evidence remains of the utilisation of the large co-operative worked fish nets, some early descriptions survive which illustrate the techniques of construction and use of these nets.

According to one of these descriptions the nets were prepared by:

... roasting the leaves (of sedges) and afterwards chewing them; the leaf is then divided longitudinally into four, two of these are twisted by being rolled upon the thigh, and are then twisted together by being rolled the contrary way; other lengths are added until as much line is made as is required. In the operation of netting the twine is wound round a short stick which answers the purpose of a needle, and the meshes are formed and the knot tied by passing the string over and between the fingers. Thus are made long pieces or ribbons of netting twenty or thirty feet long, and about a foot broad, which are afterwards put together to make a fishing net. The net is kept extended by pieces of sticks, placed across at the distance of about four feet from each other. Some nets are furnished with a bag or pouch of netting, with smaller meshes placed at one end of the net, into which the smaller fish are driven as the net is hauled in. When the fish approach the shore the natives enter the water with the net, and swim about until they get the fish between themselves and the shore, they then spread out the net, those on shore directing them, so that they may enclose the fish, and as soon as this is accomplished they are drawn to the shore. (Meyer, H.A.E., 1846).

#### *Water Transport*

In order to accomplish the spearing or trapping of fish, the people in this region often utilised bark rafts or canoes. The rafts were widely used along the River Murray and Murray Lakes system and today, large river redgums (*Eucalyptus camaldulensis*) bear the marks and scars resulting from the removal of the bark necessary for their construction. Again, according to early observers, their construction was a complicated and expert task. The following description may assist in an appreciation of the sophistication required in their manufacture.

In testing a tree the native took a yam stick, made of hardwood with a flat point. With this he began making cuts in the bark for his toes, and also to hold on by when using his yam stick; and by this process he went up trees not only for canoe-making but also for birds' eggs or opossums. Having found a suitable tree, he, when about 20 feet from the ground, commenced cutting the shape of the canoe through the bark to the hard wood, with his yam stick. This process completed, a rope was passed round the tree, taking about the centre of the canoe. This was to prevent the piece of bark from slipping off before the proper time, in which case a smash would be inevitable. The next proceeding was a ticklish one, and the fate of the canoe depended upon the care bestowed on it. Several pliable, thin, flat sticks were carefully forced in between the bark and the tree; short spaces apart, but only short distances at a time. When a large canoe was being made a second cord was passed round the tree, so that the canoe could not tip over when separated from the tree. As soon as the separation was performed the cords were eased so as to allow the canoe to slip down until the lower end rested on the ground, and six or eight natives were ready to receive it as the cords were gradually loosed and place it flat on the ground. Now commenced the manipulation of this great heavy piece of bark into the proper shape for a canoe. The bark at the upper end was much thinner than at the lower end, the latter being nearer the base of the tree. Props were now placed under the sides of the canoe, and small fires were made inside at various distances to evaporate a good deal of the sap, and also to cause the sides to curl up sufficiently to keep the water out when afloat, stretchers being put across to prevent too great a curl. Much care had to be used in the drying and curling process, as too great or sudden heat would split the bark and render it useless, but this seldom happened. The thin bark at the upper end was made the bow, and bent well up, while the thick bark at the lower end represented the stern, and this could not be curled. In order, therefore, to keep the water out a mass of clay from the river bank, well mixed with grass to bind it, was put as a barricade against the water; and if renewed occasionally it served the purpose very well. Several days were required before the canoe was sufficiently dry to put in the water, and even then the weight was so great that several natives had to drag it down to the river; but when once launched it lasted for a considerable period. To propel the canoe a thinned sapling fir tree about fourteen feet in length was used, to one end of which were attached two sharp mallee-wood prongs for the purpose of spearing fish, one prong being a little longer than the other. This end of the pole was also employed for paddling, while the other served to push the canoe along when in shallow water. In cold weather a clay coating was put on a small space on the bottom of the canoe, and a fire was lit for warmth. (Hawker, J. C. 1899).

At Lake Alexandrina, Aboriginal women made rafts from layers of reeds and from these they dived for mussels, gathering and bringing them to the surface in nets tied around their necks. They cooked the mussels in fires on the rafts set on hearths full of wet sand and water weed.

In this region of South Australia elaborate coiled baskets and mats were constructed of materials similar to the twine utilised in the nets. Elaborately decorated wooden artefacts were also manufactured from the native hardwoods and were decorated with incisions achieved by mounting animal incisors on wooden handles with the use of gum adhesives, used in much the same way as chisels.

### *Mythology*

The traditional homes and territories of the tribal groups were of obvious economic importance. They were also of considerable emotional and religious significance to the people who occupied these areas, with the major natural features explained through complicated and elaborate systems of mythology which functioned also as a taxonomic classification of landscape and environment.

The territories were therefore the spiritual home and spiritual source of the Aboriginal people who lived there. Not surprisingly, for the people in this area, one of the most important myths was that of Ngurunderi, the totemic ancestor whose travels and exploits were responsible for the creation of the River Murray and its fish species. One version of this myth which has been handed down to today describes Ngurunderi as a giant who,

accompanied by his sons, followed a huge Murray Cod down the Darling and Murray River systems. As the hunters pursued the huge fish he created the stretches of water or swamp by sweeping the water aside with his huge tail. In pursuing this giant fish, Ngurunderi used a bark canoe, which today is represented by Long Island near Murray Bridge. At last, arriving near Wellington, Ngurunderi speared the huge cod which he cut into small pieces with his flint knife so as to form smaller fishes. As each piece was thrown back into the water they turned into the various fresh water species today discovered in the river and lakes. Eventually Ngurunderi discovered his two wives cooking silver bream, a fish forbidden to women. Ngurunderi pursued his wives who made a raft to escape. They travelled down the Coorong to Kingston and back to Cape Jervis creating many of the topographic features. Ngurunderi finally discovered the two women crossing to Kangaroo Island and fearing they would make good their escape he caused the sea to rise, drowning the wives who became The Pages. Ngurunderi himself crossed to Kangaroo Island cleansing himself of the old life before proceeding into the sky. His transformation into the sky spirit formed the basis of the funeral tradition whereby spirits of the deceased underwent a similar cleansing before rising into the sky.

#### *Trade*

Trade of important natural resources such as pigments for personal decoration, weapons, utensils, and in some cases, species of plants, formed an important feature of the economic, social and ritual life of Aboriginal people. Within the Murray and South East regions extensive trade occurred with groups in western Victoria, resulting in the introduction to the South Eastern and Murray regions, of the polished ground-edge axes constructed of volcanic diorite quarried at known sites in western and central Victoria, in particular the quarries located at Mount William.

Similarly, ochre discovered at various localities along the River Murray was traded the entire length of the river system as was the sparsely occurring stone suitable for the construction of stone artefacts.

#### *Contact with Europeans*

The people of the Murray and South East were among the first to experience the dramatic conflict with Europeans who were determined to acquire pasture lands which had traditionally been the hunting grounds of Aboriginal peoples.

In the very early years of South Australia's history this contact was between the Aboriginals of the South Coast and sealers and whalers who used Kangaroo Island, then uninhabited by Aboriginals, as their main base. Later, considerable conflict occurred along the Murray and in areas of the South East with overlanders bringing cattle and other stock from eastern Australia to the new settlement at Adelaide. Many of these incidents were the result of misunderstandings on both sides, while others were the deliberate result of European attempts to remove from economically useful land, Aboriginal people whose traditional claim to ownership was already, by this stage, partly recognised by the British Government and provincial administrators.

One of the first Aboriginal Missions to be established in South Australia was located at Point McLeay on Lake Alexandrina. At this settlement the Murray groups were for many years brought together to work as agricultural labourers on neighbouring properties. Today, many of the people who are descendants of the original Aboriginal inhabitants of Point McLeay have moved to Adelaide while the many other Aboriginal reserves established along the Coorong in the South East and along the Murray are now completely abandoned.

### **The Central Lakes Cultural Complex**

#### *The Landscape*

Stretching from Spencer Gulf and Gulf St Vincent and bounded by the Mount Lofty Ranges and Olary Ridge in the south east, northwards to the Queensland border, and west

to central Eyre Peninsula and Lake Torrens was a second culturally similar complex of tribal groupings. These groups occupied areas of South Australia which ranged in the south from temperate through semi-arid to the sand desert regions of the Simpson Desert. In the southern areas, where the tribal groupings had access to the sea, and in the north along the Cooper and Diamantina Creeks sophisticated fishing and hunting techniques similar to those already described for the South East and Murray groups were employed in the capture of fish, tortoises and water birds. In these areas, however, the use of the bark canoe was not known.

#### *Tribal Groups*

Over twenty separate tribal groups occupied this area sharing a common organisation based upon a moiety system whereby two, usually named, divisions within the tribe functioned as exogamous marriage units requiring a member of one moiety to marry outside of that moiety into the other. These groups, unlike the Murray and South Eastern tribes, also practised circumcision in the initiation required of the young men in order to become full members of the tribe. Almost all of these areas shared the *wilyaru* or body scarring ceremony which marked the final stage of initiation for men among these groups.

#### *Material Culture*

Within these groups were discovered highly developed techniques for the conservation of the limited and highly prized water supplies. In the Simpson Desert large tunnel-like holes, called by Wongkanguru people *Migiri*, were dug to reach the underground water table. In some cases these tunnels were ten metres long and 1.5 metres in diameter, dug at an angle through the sand to enable people to crawl down to the water supplies. Elsewhere, particularly in granite areas, gnamma holes (natural cisterns in the rock), with stone caps placed upon them by the Aboriginal people to reduce evaporation and access by native animals, formed emergency sources of water in the otherwise dry mallee areas.

Techniques for the storage of food were also developed within this area. Excess meat was sun dried and stored for transport, while surplus seed food was occasionally stored in bags made from the skin of animals and buried at selected campsites. Animal skin waterbags were also manufactured for the carrying of water when travelling long distances through particularly arid areas. The spores of the nardoo (*Marsilea drummondii*) were extensively gathered by the women, winnowed and ground between two flat grindstones in order to produce a black paste which, when mixed with water, was eaten like porridge. Large animals were trapped using nets constructed in the same fashion of those in the South East, while snares and occasionally pitfalls were used in the hillier areas for the trapping of euros and wallabies.

Within the Central Lakes region the returning boomerang was unknown. Clubs and large two-handed sword-like boomerangs were employed either as throwing sticks or as clubs to kill animals trapped in pits and snares.

#### *Mythology*

In this area, as elsewhere in Australia, elaborate myths were discovered which sought to explain and classify the landscape and environment for its occupants. Many of these myths have been recorded and the sites associated with the stories documented for protection for future generations.

One of the most important myth cycles for this area was associated with the *wilyaru* ceremony which represented the highest stage of initiation among many of the Lakes groups. As a result of the initiation ceremony, the men carried on their backs a series of elongated scars which indicated to all their full-adult status as group members. This myth, in part, explains the origin of Lake Eyre. According to this tradition, the Lake was formed after the *wilyaru* ancestor captured and skinned a large kangaroo which had been brought down by hunting dogs. The skin was pegged out by the gigantic ancestor and the area of the skin formed the bed of the present salt lake.



### Trade

One of the most notable characteristics of the Central Lakes cultural complex was the extensive trade and ritual exchange which occurred in the region. This trade resulted in the introduction to northern South Australia of the ground-edge axe from the Queensland quarries and of the narcotic plant *pitcheri* (*Duboisia hopwoodii*), a form of native tobacco which was chewed by Aboriginal people extensively throughout Australia as a stimulant.

Located in the northern Flinders Ranges was a significant deposit of red ochre which, because of its particular qualities, was highly prized throughout southern Australia. This ochre was the subject of extensive expeditions of Aboriginal people, who from as far north as the Simpson Desert, followed fixed routes marked by stone piles constructed on prominent peaks to its source.

An early description of an expedition mounted to collect this ochre is given by Gason (1879).

Every winter, in July or August, a council of all the old men is held, relative to the starting of an expedition for red ochre, to a place called Burratchunna Creek (west of the Blinman township), where there is a large mine of it. Old and young men are selected, a day fixed, and a leader appointed to take command; all being kept secret from the women, in fear they would persuade their husbands not to leave. On the day the party must start, the old men rise with the sun, and grasping their weapons and singing, promptly depart, without any leave-taking or farewell to their wives or children. The women then, conscious of the men's intentions, commence screaming, screeching, yelling, hooting, hissing, and making all kinds of hideous and uncouth sounds—calling on their husbands, sons, brothers, and friends, to remain, and not to be led into a strange and hostile country; they unheeding proceed on their way for about five hundred yards, for the purpose of arranging with the old men who are left behind, to build wurleys (Bookatoo Oorannie), for the reception of the party when it returns. The site being selected, and instructions given to build substantial huts, farewell is taken, the expedition singing a rather mournful ditty, encouraging the young lads to keep up their spirits; and indeed some of them require encouragement, knowing that besides having to travel over three hundred miles through strange country, many a hungry belly they will have before reaching their destination, independent of the load of ochre they will have to carry back. The party travels about twenty miles a day, and on arrival at the mine each member of it digs out his own ochre, mixes it with water, making it into loaves of about 20 lbs. weight, which are dried. (Just after collecting the ochre, having all the hair of their faces plucked out (not cut or burnt off)). Each man carries an average weight of 70 lbs. of ochre invariably on the head, and has to procure his own food; the party seldom resting a day while on the journey, which lasts usually from six to eight weeks, until within one day's stage of their camp—the Bookatoo Oorannie. On the return route they barter with the tribes they pass, giving weapons for old clothes.

... the ochre party, who having, for fear of hostile tribes, made their way home, only resting at night, are now within two hundred yards of the camp prepared for them. They drop on their hands and knees, so as not to awaken its inhabitants, whom they desire to take by surprise, which they do when within a few yards distance, by loud yelling and clapping their hands and dancing two or three times round the Bookatoo Oorannie, after which they retire a little way. The men of the camp then rush out to ascertain whether all of the party have arrived safe. Women crying, children screaming, dogs fighting, altogether make up a discord language is unequal to describe. Now the sugarloaf bags are placed on the heads of the adventurers, the women prepare food for them, and dancing is kept up during the whole of the night, until sunrise, when the ceremony is over, and until then the women are not allowed to speak to their husbands or relatives. Afterwards, days are spent by the members of the expedition, in recounting anecdotes and incidents of their travel.

The site of this highly prized ochre is today protected under legislation and still shows the signs of the extensive quarrying that took place in prehistoric time.

Also located in the northern Flinders Ranges are a number of grindstone quarries where the flat-bedded sandstone was found which was highly prized by Aboriginal groups to the north and north-east for the grinding of seed foods and the manufacture of flour. These grindstones were dug from the quarries with wooden digging sticks and carried, in stacks of five or six, hundreds of miles on the head. In these areas to which they were carried they formed items of exchange with groups in the north and north-east of South Australia.

From the European point of view, perhaps the most striking artefactual product of this cultural complex was the extensive rock art which is discovered throughout the region. In this area are discovered thousands of individual sites of Aboriginal engravings thought in many cases to be as much as 10 000 years old. These sites show the highly developed artistic achievement of prehistoric Aboriginal society and are protected by law in South Australia from vandalism or destruction.

#### *Contact with Europeans*

The Aboriginals of this region had, by the 1860s, been traumatised by the experience of European settlement which was accompanied in many cases by brutal campaigns of extermination. Perhaps the most disastrous contact in this region was, however, not the result of deliberate European intervention. At about the time of the 1914-18 War a particularly virulent influenza epidemic reached this region and resulted in the depopulation of extensive areas of northern and north-eastern South Australia. The earliest European contact for many groups in this area was in fact with the ill-fated Burke and Wills expedition which ended on Cooper Creek. For many months the surviving members of this expedition were kept alive by the generosity and food collecting abilities of the Aboriginal groups in this area. Fortunately, among several of the Aboriginal groups formerly located in this region, large populations of people still exist who retain much of the traditions of their forebears while today playing an active and important economic role in the European economy of the area. Steps are today being taken by these groups to conserve, for their children, their traditional language and culture and it is hoped that such attempts will result in the preservation of an important element of South Australia's cultural heritage.

#### **Western Desert Cultural Complex**

##### *The Landscape*

The area occupied by the groups who together constitute the Western Desert cultural complex is one of the most arid in the State. Evaporation exceeds precipitation in this area and the rainfall which occurs is often subject to extreme variation and localisation. The continued aridity of this area for the last 30 000 years appears to have affected the development of Aboriginal culture within this region. While much of the area is flat and sparsely vegetated, in some areas, particularly in the north-west, are extensive mountain ranges which may at certain times have functioned as drought refuges.

##### *Tribal Groups*

The largest, single, tribal group in this area today is the Pitjantjatjara. These people are thought to have moved eastwards in historical time thus displacing earlier occupants further to the east. Social organisation appears to have been based upon patrilineal descent groups which were the basic land-owning units within the area. These smaller groups had, and today still retain, special spiritual and ritual ties with particular sites within the landscape which are believed to have special significance deriving from the extensive mythology of the region.

##### *Material Culture*

The Western Desert groups are notable for the sparsity of their material possessions. In fact, however, their material culture is remarkable for its highly developed utility, a single

artefact serving perhaps a dozen different uses and needs. While these material possessions were few, they were subject to quite strict divisions based on sex specialisation and division of labour. The collection and preparation of vegetable food was carried out almost entirely by the women utilising a wooden dish, a grindstone and a digging stick. The men's material culture comprised little more than a spear, a spear thrower and a stone knife and was directed exclusively towards the hunting of game.

The cultural groups of the Western Desert complex showed little specialisation in hunting and manufacture of artefacts. Each man was capable of a complete range of activities although some were inevitably more adept than others. In this region the most highly developed cultural trait was the elaborate ritual performance and associated personal decoration. A considerable amount of the men's time was devoted not to hunting but to ritual activities, despite the apparently inhospitable nature of the landscape. Inevitably, few modified features or monuments are discovered in the landscape to indicate this activity.

The sites of the greatest significance to the people were primarily unmodified natural features with ascribed totemic significance.

Today the people of this area retain many of their traditional concerns based upon these sites and in some cases, as a result of revival of interest in ritual and ceremony, sites previously abandoned because of the encroachment of Europeans have become once again incorporated in ritual performance. Of particular interest to Europeans in this area, however, are the highly stylised ochre paintings discovered throughout the region. Many of these have been the subject of repeated additions often resulting in the obliteration of earlier designs. The collection and documentation of these symbolic designs and the myths they illustrate has assisted researchers in this part of Australia in the interpretation and understanding of similar artistic productions elsewhere.

#### *European Contact*

European contact with the people in this region had, except for the southernmost areas, been negligible until the beginning of this century. Occasional small exploration and prospecting parties had visited the region but as few discoveries of economic significance were made little interest existed in the area. The combination of circumstances of isolation, unsuitability for pastoral pursuits, and the apparent lack of exploitable mineral deposits enabled the creation in the north-west of this State of an extensive Aboriginal Reserve which in turn meant that European contact was restricted until very recently. While, as elsewhere, the recent period of European contact through the Reserve settlements has had a traumatic effect upon the older traditional peoples, in recent years the stability provided by a return to traditional belief and values has enabled them to retain a viable social and community life.

During the last ten years or so many of the clan groups who had been brought together in settlements within the Reserve have returned to their clan territories where decentralised groups have revived traditional ritual performance at remote sites and have chosen to supplement their European diet with traditional and nutritious native foods.

#### **Preservation of Aboriginal Heritage**

The continued existence within the South Australian landscape of sites and modified features associated with the earlier Aboriginal inhabitants of this State has been recognised by the South Australian Government through the Department for the Environment. The Department is today responsible for legislation aimed at the protection and preservation of these earlier evidences.

A program of documentation and investigation of sites is proceeding with the assistance of the Australian Institute of Aboriginal Studies with a view to identifying significant Aboriginal sites so that they may be preserved for the enjoyment and education of

younger generations of South Australians. This task is being undertaken by the Aboriginal and Historic Relics Unit which welcomes information from the public advising of discoveries of such sites.

It is the firm belief of officers charged with the responsibility of protecting these sites that our Aboriginal prehistoric heritage is a unique and irreplaceable element of South Australia's cultural history. The task of preserving elements of this cultural heritage however requires the co-operation of all South Australians and it is hoped that through a clearer appreciation of this unique contribution to our heritage this task of preservation can be achieved.

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Aboriginals netting fish, Rapid Bay, South Australia.  
(Angas, G. F.: *South Australia, Illustrated*)



South Australian Aboriginal portraits—note skin rug.  
 (Angas, G. F.: *South Australia, Illustrated*)



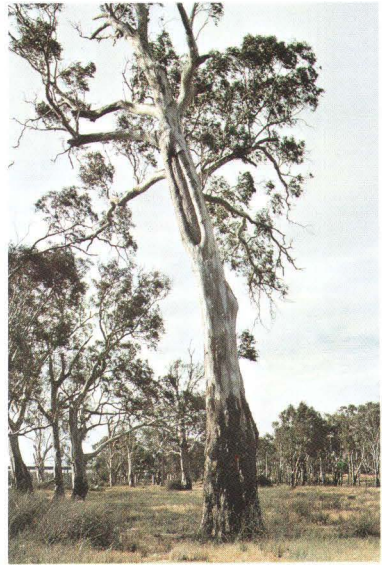
*T. Power*

Remains of shell fish collected and eaten by coastal Aboriginals.



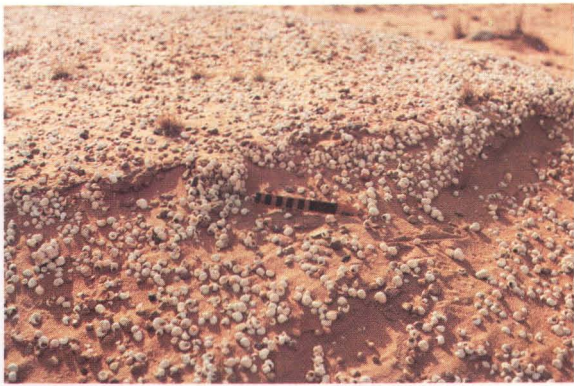
*R. Ellis*

Wooden fish trap, Port Lincoln.



*R. Ellis*

Scarred tree showing removal of bark for manufacture of bark canoe, River Murray.



*T. Power*

Midden heap—remains of shell fish collected for food.



*R. Ellis*

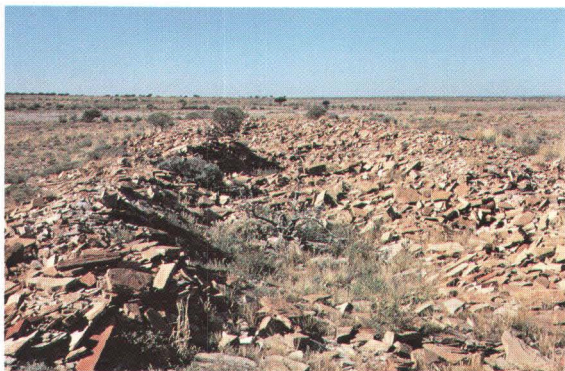
Gnamma in granite dune showing stored water supplies.



*R. Ellis*

Gnamma with stone cap placed by Aboriginal to conserve water.





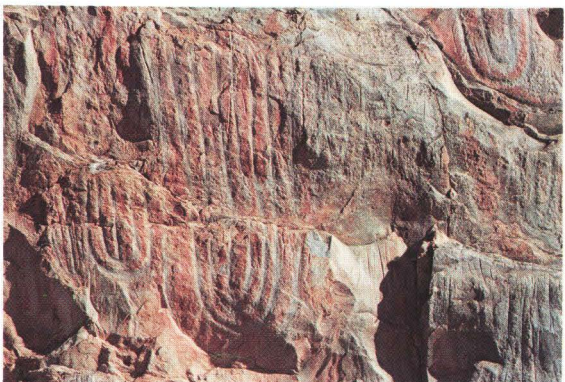
Prehistoric Aboriginal grindstone quarry.

*R. Ellis*



Aboriginal stone arrangement.

*P. Fitzpatrick*



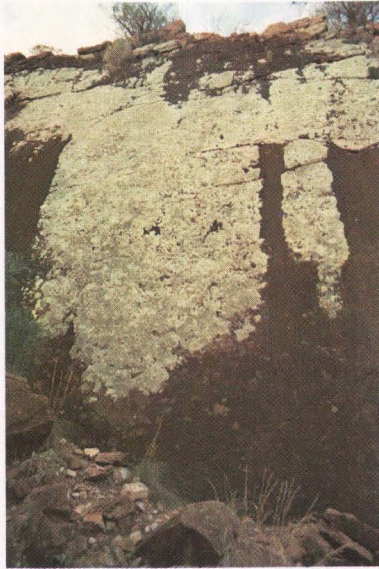
Aboriginal art site, north-east South Australia.

*R. Ellis*



*R. Ellis*

Prehistoric Aboriginal rock engravings, Flinders Ranges.



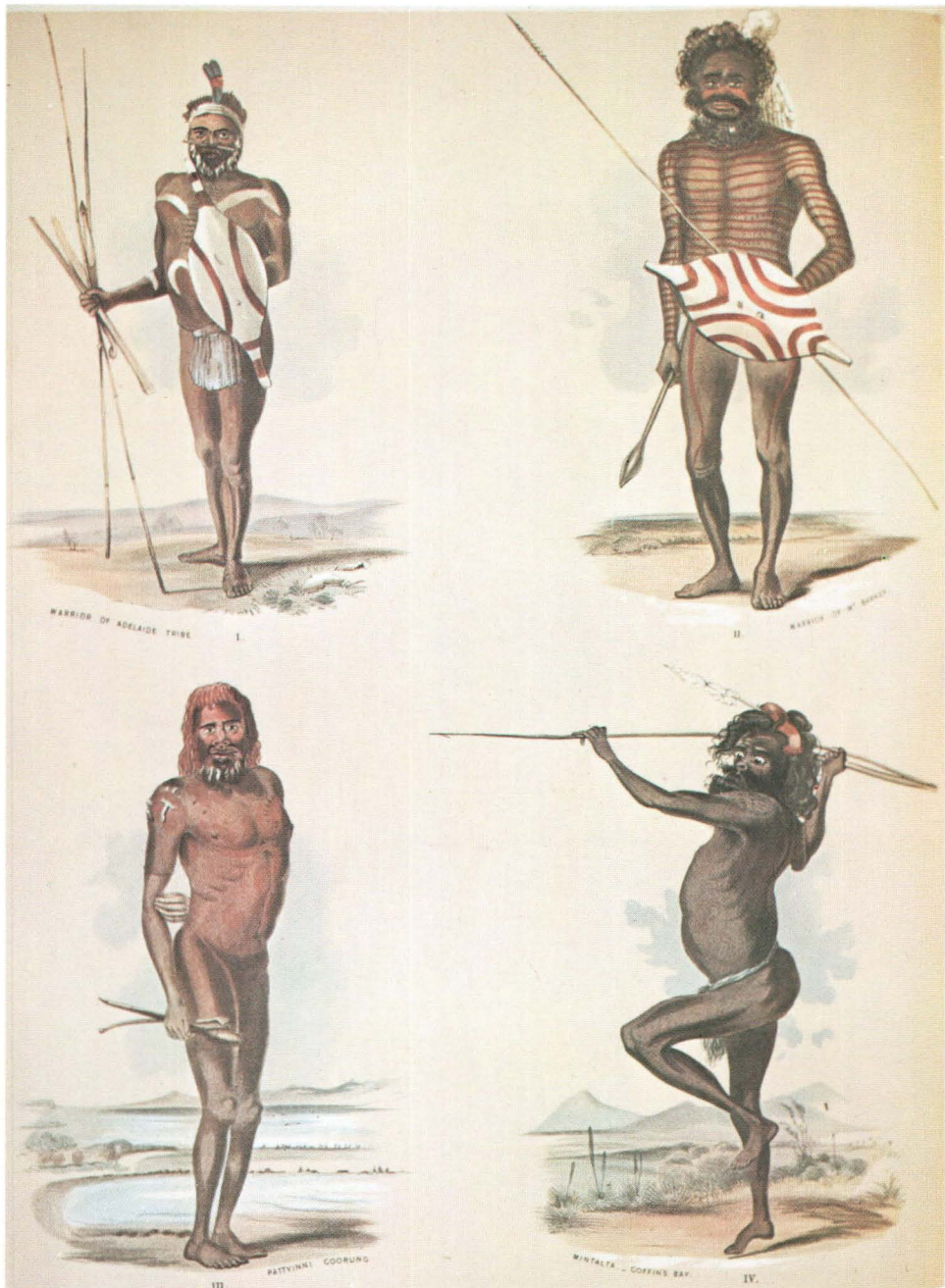
*R. Ellis*

Mythological site, Flinders Ranges. Lichen deposits represent beards of the two moieties.



*R. Ellis*

Aboriginal ochre paintings, north-west South Australia.



South Australian Aboriginal portraits—note cosmetic use of natural pigments.  
 (Angas, G. F.: *South Australia, Illustrated*)



## EXPLORATION AND COLONISATION

### EXPLORATION BEFORE COLONISATION

The Dutch made the first recorded discovery of Australia in 1606 on the Gulf of Carpentaria, and Dutch ships were sighting Western Australia from 1616 onwards. It was in 1627 that the first part of the South Australian coast was discovered when the *Gulden Zeepaard* under the command of Francois Thyssen examined the coastline from Cape Leeuwin to the islands of St Francis and St Peter in the far west of South Australia. On board the *Gulden Zeepaard* was Pieter Nuyts, 'Councillor Extraordinary of India', after whom this area was named 'A Landt Van P. Nuyts'.

As the South Australian coast presented no evidence of prospects for trade, the Dutch, being essentially a trading nation, were not inclined to closer investigation. Indeed, so little interest was displayed in this section of the Australian coastline that it was 165 years before the next recorded sighting of South Australia was made, and this was by a French explorer.

Rear-Admiral D'Entrecasteaux, who had been searching all around Australia for the lost French explorer La Perouse, sighted land south of Cape Leeuwin in December 1792 and examined the cliffs of the Great Australian Bight. He sailed to the head of the Bight, but then after so many miles of barren coast abandoned hope of finding anything other than desolate country, and sailed south for Van Diemen's Land (Tasmania). The early impressions of the South Australian coast were therefore most unfavourable and tended to discourage further investigation.

The British who followed were far more interested in the possibility of colonisation to help ease their population problem at home, and consequently, once the effects of early discouragement had worn off, they began to take an interest in South Australia as a

possible site for a new colony. Lieutenant James Grant was the first British explorer to sail along the South Australian coast, sighting the extreme easterly shores of South Australia about 1800. While in Cape Town he had been informed of the discovery of Bass Strait and was instructed to sail through it in the *Lady Nelson* on his way to Port Jackson. Sailing along the extreme south-east coast he named Cape Banks, Cape Northumberland, Mount Schank and Mount Gambier.

The first notable British contribution to the exploration of the South Australian coast came, however, with the voyages of Matthew Flinders in the *Investigator*. With the support of the President of the Royal Society, Sir Joseph Banks, Flinders sailed from England on 18 July 1801. On his voyage of circumnavigation of the Australian continent he thoroughly explored the coast of South Australia between January and April 1802. In addition he discovered the Gulfs and Central Highlands, thus solving the question of whether a north-south strait divided the Australian continent in two. More important was the fact that Flinders reported very promising country for settlement. Many places along the coast carry the names given by Flinders; several of these were named after places in his home county of Lincolnshire, e.g. Port Lincoln, Sleaford, the Althorpes and Boston Bay, while others include unusual names such as Backstairs Passage, The Pages, and Antechamber Bay. Flinders was in fact the first man to explore South Australian waters between Nuyts Archipelago and Encounter Bay. It was at Encounter Bay on 8 April 1802 that he met Captain Nicolas Baudin, the French explorer, heading along the coast from the east in *Le Geographe*.

Baudin, in command of *Le Geographe* and accompanied by *Le Naturaliste*, left Le Havre in October 1800 with instructions to explore several specified regions including the then unknown portion of the southern coastline of Australia. After being delayed in the East Indies and Van Diemen's Land, Baudin sailed westward and charted the mainland coast from Western Port to Encounter Bay, where he met Flinders. The object of Baudin's expedition was to make scientific discoveries on behalf of Napoleon, but he had wasted considerable time *en route*. Thus most of the South Australian mainland coast was discovered before him by Grant and Flinders, and he was the original explorer of only a small section between Cape Banks and Encounter Bay. Some French names still remain, for example Lacedpede Bay, Guichen Bay and Rivoli Bay. After the meeting at Encounter Bay, Baudin sailed further westward and along the northern shore of Kangaroo Island to Murat Bay, before being forced to abandon further exploration and to return to Port Jackson in June 1802. However, after re-equipping his expedition and with the addition of another ship (*Casuarina*) for charting work in shallow waters, Baudin returned to the South Australian coast by way of King Island in Bass Strait. Leaving King Island on 27 December Baudin in *Le Geographe* and Freycinet in command of *Casuarina* headed direct for Kangaroo Island where they circumnavigated the whole island and charted its coast, being the first to chart its southern and western shores. This was to be the last major contribution made by an official French expedition to exploration of the South Australian coast.

Although these discoveries on the South Australian coast did not lead to any immediate colonisation, there began an increasing series of visits by sealing vessels to Kangaroo Island. A group of American sealers built a schooner on the island in 1804, while wild gangs of sealers and runaway convicts were forming settlements from 1806 onwards. In addition, French exploration in the area had led to a fear on the part of the British authorities that it might result in French colonisation, and, although not greatly valuing the area for itself, the British would have found it an embarrassment to have the French settled on the Australian continent. As a result, in 1804, the British sent Grimes, a government surveyor, to Kangaroo Island to report on it as a possible site for colonisation. The Grimes Report was most unfavourable, stating that the soil was poor and that the island lacked fresh water. On the other hand, in 1819 a Captain Sutherland visited the

island and wrote an over-optimistic report on its future. It was this report which later led the South Australian Company into establishing their first station there in 1836.

In the period between 1804 and 1836 a number of further discoveries took place at various parts of the South Australian coastline by a Captains Dillon (1815-16), Goold (1827-28), Hart (1831-33), and Jones (1833-34), together with the discovery of Lake Alexandrina by a group of sealers in 1828. Reports of this period were marked by contradictions regarding the suitability of South Australia for settlement. However, contradictory as were these accounts reaching England, they managed to convince the founders of South Australia even before 1830 that the available fertile land was more than adequate for the founding of a colony.

The most significant explorations of the period immediately before colonisation were those of Captain Charles Sturt, who explored the Murray River from New South Wales down to its mouth; traversed Lake Alexandrina and located the Goolwa channel, reaching the western shore of the Murray mouth on 12 February 1830. Captain Sturt's journey has become something of an epic in Australian history; with a small party of soldiers and convicts he rowed 2 700 kilometres on the Rivers Murrumbidgee, Darling and Murray. They suffered from desperate weariness, endured a distressing lack of provisions, and were periodically attacked by Aborigines. However, the main object of Sturt's journey was accomplished; the settling of the long insoluble 'problem of the rivers' of south-eastern Australia. But the real significance to South Australia was more than the mere settling of what was little more than an academic question, for his discoveries opened up 3 200 kilometres of navigable inland waterway and gave to Gulf St Vincent, which lay so near the mouth of the Murray, a new significance. It was the age of canal building in Europe and of the development of the Mississippi in America, so that navigable water was considered of prime importance. The exuberance felt by everyone interested in South Australia at such a discovery is typified by the Wakefield theorists who believed that the entire produce of eastern Australia would eventually be shipped from this area. In fact, the Murray became the grand attraction of the scheme. However, Sturt's own fervour at this stage was somewhat cooler than that of interested persons in England for there was one great disappointment which marred his discovery—the Murray lacked a sufficiently safe navigable mouth. Sturt found that the Murray flowed into a series of shallow lakes and a sand-blocked mouth. So little did Sturt's contemporaries understand the earth movements and land formation of the area, that their only conclusion was that there must somewhere be another channel emptying the waters of the Murray into the sea. So, the 'problem of the rivers' was replaced by the 'mystery of the Murray mouth'—and official action was to be taken promptly to solve this mystery.

Governor Darling of New South Wales sent Captain Collet Barker to the southern coast to try to solve the mystery of the Murray. Barker, landing at Noarlunga on 17 April 1831 ascended Mount Lofty and then returned to his ship, the *Isabella*, and examined Port Adelaide. After landing again at Rapid Bay, he crossed the hills to the Murray, thus proving that the river had no westerly outlet. Barker's expedition came to a tragic end when, under mysterious circumstances, he was apparently murdered at the Murray mouth by the usually peaceable Narrinyeri natives. This was the first of a long series of tragic deaths, mainly arising out of navigational difficulties, in the area of the Murray mouth which tended to discourage navigation later. Barker's party, however, reported fertile country in the region and the existence of a pass from the Murray mouth to Rapid Bay on Gulf St Vincent. While Barker's expedition proved without doubt that there was no really navigable connection between the Murray and the sea, it added to the rapidly growing volume of favourable accounts of the fertility of the region around Gulf St Vincent. Interested people in England were so obsessed with the geographical fact of the great Murray waterway opening up the centre of Australia that they barely registered the unfavourable accounts of its egress to the sea.

Probably the greatest encouragement for the settlement of South Australia came from Charles Sturt himself who, after his return to Sydney in May 1830, wrote *Two Expeditions into the Interior of Southern Australia* (published in 1833), in which he said: 'My eye never fell on a country of more promising aspect, or more favourable position, than that which occupies the country between the lake and the ranges of St Vincent's Gulf, and continuing northward from Mount Barker, stretches away without visible boundary'. This glowing report, together with that of Barker's expedition, was welcomed by those in England seeking a suitable site to establish a colony where the principles of the Wakefield Plan could be applied without restriction. Sturt spared no efforts in converting opinion to the potentialities of South Australia and, as well as his *Two Expeditions*, he wrote a private letter to the Colonial Office on 17 February 1834. Sturt actually marked the present position of the Outer Harbor at Port Adelaide as the proper and natural site for the capital. 'It is in the angle formed by the creek with the coastline that I would recommend the formation of a township, . . . because it appears to me that when the distant interior shall be occupied and communication established with the lake and valley of the Murray, the banks of this creek will be the proper and natural site for the capital. . . . The level country to the north would be overspread, the valley of the Murray would be peopled, every available spot would be located, and its numerous ramifications would afford pasture for thousands of cattle'. In his reasons for this opinion he showed more foresight than he was to do later when, in disagreement with Colonel Light, he supported those who wished to move the capital to Encounter Bay.

Colonel William Light, who had been appointed Surveyor-General of the new colony, sailed from England in the *Rapid* on 4 May 1836 with instructions to select a site for the capital of the colony. After a brief visit to Encounter Bay, which he found unsuitable, he landed at Nepean Bay on Kangaroo Island where some South Australian Company ships had already established a settlement.

From here Light explored the east coast of Gulf St Vincent. Then, pressed for time by the unexpected arrival of the new settlers, he was able to make only a quick trip to Port Lincoln and a brief inspection of part of the west coast of Gulf St Vincent before, in concurrence with Sturt's earlier opinion, he decided that the most suitable site for Adelaide was on the banks of the small, but centrally situated, River Torrens.

### COLONISATION

The colonisation of South Australia was in itself an experiment involving certain new principles and was to represent a turning point in British colonial policy. The period was conducive to colonisation as in Britain there was wide-spread unemployment and poverty, the popular remedy for which was emigration. Nevertheless the somewhat revolutionary nature of the plans was to result in seven years of negotiation and considerable modification of early ideas before the colonisation of South Australia was finally approved.

The theoretician was Edward Gibbon Wakefield, whose ideas were contained in a number of writings including the now famous *A Letter from Sydney* series, written in 1829 while he was imprisoned in Newgate Gaol. Wakefield's plans involved three broad principles: the sale of land; the use of the receipts for sponsoring emigrants; and the granting of some measure of self-government. Drawing on developments in New South Wales, Wakefield argued that the then current system of giving away vast tracts of land to settlers resulted in an imbalance between land and labour. It was therefore desirable to restrict land distribution and increase the labour supply, and this could be done by selling land at a suitably high price to prevent all labourers becoming landowners and by devoting the proceeds to free passage for a carefully selected labour force.



At the same time, following conflicting observations by early explorers, encouraging reports of the South Australian coastline filtering in from traders and seamen gave rise to moves for the practical application of Wakefield's ideas for the founding of a colony in South Australia.

The first attempt to form a colony was made by Robert Gouger who, having met Wakefield in Newgate Gaol in 1829, was so impressed with his ideas as to approach certain interested parties with a view to purchasing a tract of land in South Australia. He was unable, however, to gain sufficient support to interest the Colonial Office in his plans. In 1830 the National Colonization Society was formed with Gouger as its secretary. The Society served to further disseminate Wakefield's principles, but was not directly associated with plans for a colony in South Australia.

Renewed interest in colonisation followed the first of Captain Sturt's enthusiastic reports of the land of the lower Murray and in 1831 a group of intending settlers, still enthused with the ideas of Wakefield, formed the South Australian Land Company. A committee headed by Colonel Robert Torrens approached the British Government for a charter and then made preparation for the first voyage. The Government was not prepared to grant the necessary territory, and negotiation continued until 1833 when the Company finally conceded that the Government was unlikely to approve any plans involving a chartered colony.

From the same core of enthusiasts who had supported this and earlier ventures there emerged in 1834 the South Australian Association. This group was prepared to abandon hopes for a chartered colony, conceding the issue of self-government, provided that the enabling legislation accommodated Wakefield's other principles for land sales and migration. The passage of the legislation was by no means smooth; the scheme was new and involved untried principles, and knowledge of the territory was still extremely limited. Doubts on the suitability of the site were to be largely dispelled by the writings and personal representations of Sturt and the confirmatory expedition by Barker, and finally in July 1834 legislation for a colony in South Australia was put before Parliament. This legislation represented a considerable compromise on earlier plans.

The South Australian Colonization Act (4 & 5 William IV. Cap. 95) was assented to on 15 August 1834; the persistent efforts of Gouger, Torrens, and many others for a settlement in South Australia had finally borne fruit, and at least some of the ideas of Wakefield were to be tried. The territory allotted under the Act embraced 802 508 square kilometres, with the western boundary the 132nd meridian of east longitude and the other boundaries virtually as they are today. The colony was to be opened to settlement by British subjects, but under no condition were convicts to be admitted, making South Australia the only State to be settled entirely by free persons. Authority was to be divided, with the Colonial Office through the Governor controlling all affairs of government except land sales and immigration, these fields being reserve to a Board of Commissioners. Provision was made for self-government upon the population reaching 50 000. All land alienated by the Crown was to be sold at a price of not less than '12 shillings' (\$1.20) per acre and the whole of the proceeds used in 'conducting the emigration of poor persons from Great Britain and Ireland'.

Although Parliament was prepared to authorise the experiment it was not prepared to finance it; the colony was to be self-supporting. The Commissioners were accordingly authorised to borrow \$400 000 against future general revenue to finance the founding of the colony and the establishment of government, and \$100 000 against the sale of land to start the migration program. Finally, the Act contained two conditional clauses which were to harass the whole venture and served to delay colonisation another twelve months. The first of these conditions, which were to be satisfied before the Commissioners could

exercise their general powers, required that government securities to the value of \$40 000 be lodged as a guarantee for the venture. Secondly, land to the value of \$70 000 was to be sold before settlement.

A Board of Commissioners with Torrens as Chairman was appointed early in 1835. The Board immediately offered land in the new colony at \$2 an acre including rights to a city acre with every 80 acres of rural land. In spite of considerable publicity, unsurveyed land in an unknown colony proved difficult to sell, and with less than half the land sold the price was reduced to the permitted minimum of \$1.20 an acre. Finally, George Fife Angas, a member of the Board, together with two others took up the balance of the land on behalf of the South Australian Company, which was then in the process of being formed.

In December 1835 with sufficient land sold and with the \$40 000 guarantee lodged with the Treasury, the Commissioners were free to begin the business of colonisation. The South Australian Company was formed in January 1836, and in February two ships of the Company, the *John Pirie* and the *Duke of York*, sailed for Kangaroo Island to establish a settlement. Another Company ship the *Lady Mary Pelham* followed later.

The *Cygnets* carrying the Deputy Surveyor, G. S. Kingston and his staff left at the end of March and the *Rapid* with Colonel William Light, Surveyor-General, on board departed at the beginning of May. One of Light's most important tasks was to choose a site for the first settlement and details of his early movements are given on page 42. The first Company vessels reached Kangaroo Island in July, and colonists arrived at Adelaide from early November. The first Governor of the colony, Captain John Hindmarsh RN, arrived at Holdfast Bay on 28 December 1836 and the new colony was officially proclaimed on the same day. By this time some 300 colonists were already in residence. Hindmarsh was to remain in the colony for eighteen months, a period marked by political feuding and very little progress.

The one outstanding feature of the first two years was the work of Light. Expected to carry out difficult tasks with an inadequate staff Light first had to contend with opposition to his choice of a site for Adelaide. His views prevailed and the city was surveyed to his plan and the land was allotted by March 1837. There were 700 one-acre lots in Adelaide south of the River Torrens and 342 one acre lots in North Adelaide. Victoria Square was situated in the centre of the City and there were four other squares in Adelaide as well as one in North Adelaide. An important feature in Light's plan was the extensive parklands surrounding the City.

The survey of country land for the preliminary purchasers proceeded very slowly and it was not until May 1838 that the first ballot for country sections was held. At the same time the survey staff were becoming increasingly disgruntled with the unrealistic demands of the Commissioners and in June almost the entire staff resigned. Light died in October 1839.

While the preliminary survey was in progress the settlers remained in Adelaide where their energies and resources were largely devoted to speculation in town lands and in land orders, and where supplies had to be imported with a corresponding outflow of capital. Superimposed on this situation was the continual arrival of new immigrants who served only to increase the volume of the unemployed.

Much of the inactivity of the colony was brought about by constant clashes between Hindmarsh and the Resident Commissioner J. H. Fisher, which finally led to the dismissal of Fisher and the recall of Hindmarsh in July 1838. It was realised that the divided authority as incorporated in the Colonization Act was impracticable, and the next Governor, Colonel George Gawler, was authorised to represent both the Crown and the Commissioners.

Appalled at the stagnation of the colony, Gawler immediately undertook a liberal spending program. Surveying was considerably increased with the result that 200 000

hectares had been surveyed by mid-1841. At the same time an extensive public building and works program provided relief for the unemployed. Generally Gawler created a renewed state of optimism which remained until 1840 when land values were depreciated and sales declined. Immigrants continued to arrive throughout this period.

Most of Gawler's expenditure was met by bills drawn on the Commissioners in London. In 1841 a situation was reached where the Commissioners could no longer honour these bills and Gawler was summarily replaced by Captain George Grey. The Imperial Parliament met the bulk of the debts, and in 1842 the Board of Commissioners was abolished. Thus the small measure of independence which the Board represented disappeared and South Australia became an ordinary Crown Colony.

The term of office of Grey was in contrast to that of Gawler, with Grey imposing rigid economies. Public expenditure was cut and considerable unemployment with its accompanying hardships followed. Speculation ceased and the unemployed gradually left Adelaide to be absorbed on the lands which Gawler had opened up. By this time the flow of immigrants had ceased with the suspension of the assisted migration scheme.

By 1844 the colony was producing wheat in excess of its needs and when Major Robe succeeded Grey as Lieutenant-Governor in 1845, South Australia finally became self-supporting. Moreover prosperity was on the doorstep; copper had been located at Kapunda in 1843 and a major find was made at Burra in 1845. Heavy immigration followed these discoveries and continued until the Victorian gold rush. Copper soon became the principal export, with wool providing a complementary cargo. In addition, the repeal of the Imperial Corn Laws in 1846 and the Navigation Acts in 1849 strengthened the export trade in grain.

The discovery of gold in Victoria in 1851 had a two-fold influence on the development of South Australia. In the first place it drained off a large proportion of the skilled artisans and forced the closing of the copper mines. Secondly it gave great impetus to agriculture when the price of wheat rose sharply—the feeding of the miners became as attractive a proposition as was the actual mining. Four years later, when the miners returned, many of the more fortunate purchased land with their winnings.

At the same time political changes were taking place and in 1856 South Australia attained self-government.

### EXPLORATION AFTER COLONISATION

Only a minor portion of the area proclaimed as South Australia was to prove economically viable, but extensive exploration with its accompanying hardships was necessary to establish this fact. Post-colonisation exploration was of two forms; the first being the continuous process of discovery as settlers sought grazing and crop lands and sometimes mineral resources, and the second the more deliberate activities of the professional explorers as they sought to cover vast distances through unknown terrain.

The earliest exploratory moves of the colonist were directed towards establishing an overland route between Adelaide and Encounter Bay, and in discovering a north-easterly passage to the River Murray that would by-pass the Mount Lofty Ranges. Contact was first made with Encounter Bay in about July 1837 by Colonel Light and J. H. Fisher, and in December of the same year an expedition by Strangways and Hutchinson played a further important part in making contact with the River Murray by driving a bullock cart across the ranges to Encounter Bay, and then exploring the Murray mouth, the Goolwa channel and the southern part of Lake Alexandrina. The north-easterly route to the Murray was first traversed successfully early in 1838. Penetration of the Mount Lofty Ranges began in 1837, and by the end of the year parties had crossed the ranges and descended to Lake Alexandrina.

From the beginning of 1838 attempts were made to open up stock routes from the eastern States. Joseph Hawdon and Charles Bonney were the first to make an overland cattle drive to Adelaide. Leaving Hawdon's station near Albury on 13 January 1838 with a party of seven men, they took a route which followed the Murray for much of the way, and reached Adelaide in eleven weeks with the cattle in good condition and only four head out of 300 lost *en route*. At the same time Edward John Eyre was making a similar cattle drive, but after unsuccessfully trying to find a suitable trail south of the Murray, he was forced to make his way back to the Loddon River and then follow the trail taken by Hawdon and Bonney. In another journey starting in 1838, Eyre became the first to bring sheep overland to Adelaide, driving 1 000 sheep and 600 cattle along the Hawdon trail. Charles Sturt was another to make an early stock drive to Adelaide, while Bonney in 1839 pioneered an alternative route which followed the south-east coast of the State and crossed the Murray above Lake Alexandrina.

Other parts of the State were also attracting attention. A section of Yorke Peninsula was visited in 1838, and in the following year a number of expeditions were made into the hinterland of Port Lincoln. Thus by 1840 the area within an 80 kilometre radius of Adelaide had been explored for pastoral, farming and mineral lands. Settlers had also ventured by boat along the Murray by boat to Port Lincoln and thence inland, and by boat and overland to Yorke Peninsula. Reports by drovers who came down the Murray suggested that the land on the other side of the Murray was of little immediate value. It was soon to be realised, however, that very different conditions prevailed in the Lower South East, and by the mid-1840s this area was supporting a considerable sheep population.

Knowledge of the arid interior and of the far west coast was to be obtained from a number of major expeditions, the first such venture being led by Edward John Eyre. In 1839 Eyre journeyed north to Mount Arden, at the head of Spencer Gulf, when he established a base camp. From Mount Arden he made the first sighting of the dry bed of Lake Torrens. Crossing to Port Lincoln, Eyre proceeded up the west coast of the peninsula which came to bear his name, passed through Streaky Bay, and came to within 80 kilometres of the Western Australian border. The return journey to Mount Arden camp was made across the top of Eyre Peninsula.

The interest of the colonists was now divided between the country to the north, including Eyre's new-found lake, and the possibility of establishing an overland stock route to Western Australia. Eyre having just returned from the desolate country of the Great Australian Bight showed little enthusiasm for the latter idea, and in June 1840 set out for the north. From Mount Arden he made three attempts to penetrate beyond the lakes, but after following the Flinders Ranges to Mount Hopeless and making a number of observations, he concluded that Lake Torrens was a giant horseshoe-shaped salt lake forming an impassable barrier. This erroneous belief was to persist for eighteen years.

Thwarted in his efforts to go north, Eyre decided to attempt the western crossing. Leaving Mount Arden the party separated, one group going direct to Streaky Bay while Eyre went down to Port Lincoln. The party reformed at Streaky Bay and moved to Fowlers Bay, where a camp was established in November 1840. After a number of preliminary explorations around the Bight, Eyre and a small party set out for King George Sound (Albany) in February 1841, having sent the remainder of the party back to Adelaide. Eyre arrived at King George Sound in July after an extremely tortuous crossing.

In 1842 and 1843 the Surveyor-General, Colonel Frome, made two trips to the Lake Torrens region in an attempt to determine the nature of the area. However, after reaching a 'desert-like' Lake Frome (which he believed to be part of Lake Torrens) he turned back, making two short thrusts to the east on the return journey. Frome had seen enough to be able to report that there was no country as far as the meridian 141° (and probably much beyond it) available for either agricultural or pastoral purposes.

Captain Charles Sturt, whose earlier journey down the Murray had helped precipitate the colonisation of South Australia, was again to contribute to South Australian exploration. Considerable mystique had developed concerning Central Australia, including the rumoured presence of an inland sea, and in August 1844 Sturt set out from Adelaide in an effort to unveil this area. Hoping to avoid the supposed horseshoe lake, Sturt followed the Murray and Darling Rivers to Menindee. After passing through Broken Hill and seeing Eyre's Mount Hopeless from the other side of the lakes, the party moved to Mount Poole some 300 kilometres north of Menindee. Here they rested for six months while waiting for rain to fall. In July 1845 Sturt set off in a north-westerly direction crossing Sturt's Stony Desert and the north-east corner of the State. Although temporary relief was provided by Eyre Creek, the course of which they followed for some considerable distance, the desert nature of the subsequent terrain forced the party to turn back when very close to their central goal, and only 800 kilometres from the Gulf of Carpentaria. A second assault on the desert also failed, although Sturt explored along Cooper Creek for almost 150 kilometres before returning to the base camp and thence to Adelaide in January 1846.

In 1846 John Horrocks led a small party north from his station, Penwortham, through the Flinders Ranges *via* Horrocks Pass (so named by the party) and on to a camp site at Depot Creek. The party had brought with them the only camel then in the colony, the first time one had been used for exploration work in Australia. From Depot Creek, Horrocks made two trips, the first of about 30 kilometres and the second about 100 kilometres to Lake Dutton where, jostled by his camel, he accidentally shot himself, thus bringing the expedition to an early end, but not before he had formed the opinion that there was no suitable pastoral land in that direction. Horrocks died of his wounds about three weeks later.

Further to the west a small expedition led by John Darke explored country to the north and east of the Gawler Ranges, and concluded that there was no useful land for settlers in this region. On his way home to Port Lincoln, Darke was mortally wounded by natives near what is now known as Darke Peak. In 1857 Stephen Hack explored the country west of Lake Gairdner and found useful pastoral country at the south-western end of the Gawler Ranges.

At about this time the northern lakes again became a centre of interest. In 1856 there had been considerable rainfall in the area, and when the Deputy Surveyor-General, G. W. Goyder, visited Lake Torrens he found an inland sea surrounded by excellent vegetation. Goyder's glowing report was, however, discounted by a return journey the following year. Indeed the extremely fickle seasons experienced in the north were to lead to many conflicting reports as the explorers and settlers moved northwards. Between 1857 and 1859 several exploratory expeditions visited the region of Lake Torrens and it was during this period that the myth of the horse shoe lake was destroyed. Knowledge of the lakes district was extended by B. H. Babbage, who discovered Lake Eyre in 1858, and Major P. E. Warburton, who located the first stock crossing. A. C. Gregory, coming south from Queensland in search of Leichhardt, passed between the lakes *en route* to Adelaide in 1858.

At the same time parties were searching for pastoral country in the north, with the most extensive search being made by John McDouall Stuart in 1858. Stuart, who had been in Sturt's party in 1844, set out from Mount Arden, passed to the west of Lake Torrens, and circled north of Coober Pedy, returning to Mount Arden *via* Fowlers Bay. In the meantime the South Australian Government was offering a reward for the first successful north-south crossing of the continent, and after making two exploratory journeys to the north in 1859, Stuart set out in March 1860 to attempt such a crossing.

Stuart had an advantage over Sturt in that the intervening years had revealed the lakes to be passable and thus he was virtually able to begin his expedition at Chambers Creek at the southern tip of Lake Eyre, and to pass through known country as far as The Neales watercourse. Stuart reached the MacDonnell Ranges in the Northern Territory in April, and later the same month estimated that he had reached the centre of the continent. His attempt to reach the northern coastline was thwarted however, and in June he turned back. In a second attempt in 1861 he followed the same route and this time reached Newcastle Waters before being forced to return. At his third attempt Stuart was successful, reaching the sea on 24 July 1862 and establishing a route which was to be followed by the Overland Telegraph ten years later. A special article on the Overland Telegraph Line was included on pages 526-31 of the *South Australian Year Book* 1972.

While Stuart was making his second attempt to reach the north, the ill-fated Burke and Wills expedition was crossing the continent further to the east. Their journey took them across the north-east corner of the State along much the same path as that followed by Sturt some seventeen years earlier. In 1861 and 1862 parties led by Alfred Howitt, who left from Melbourne, John McKinlay from Adelaide, were to pass through the same area in search of Burke and Wills. After finding traces of the expedition on Cooper Creek, McKinlay pushed east and then north, to reach the Gulf of Carpentaria.

The construction of the Overland Telegraph between 1870 and 1872, and the subsequent maintenance of this link between Adelaide and Darwin, naturally led to minor exploration of the adjacent country. At this stage attention turned to the land between the telegraph line and the settlements of Western Australia. Foremost among the explorers of this region, and whose paths brought them within South Australia, were John Forrest and William Ernest Giles. In March 1870 Forrest left Perth for Adelaide, covering much the same path as Eyre had taken 30 years earlier. Forrest crossed South Australian territory again in 1874 when he travelled from Geraldton in Western Australia across the centre of the continent, coming down the Alberga watercourse to Peake telegraph station.

Giles had set out from the Overland Telegraph in 1873 at a point north of Oodnadatta, but was forced to return after covering approximately half the distance to the western seaboard. He tried again in May 1875, this time going south from Beltana to Port Augusta and then to Ooldea on a route which forty years later was to be closely followed by the east-west railway. From Ooldea the party went north for over 170 kilometers before again striking out to the west. Giles reached Perth in November, and three months later left Geraldton to return to South Australia on a route similar to that taken by Forrest two years earlier, arriving at Peake telegraph station in August 1876.

In 1873 W. C. Gosse returning from an unsuccessful attempt to reach Perth from Alice Springs, discovered and named the Musgrave Ranges.

A number of persons other than those mentioned contributed to the exploration of the State, both in the period discussed and subsequently. The inhospitable nature of the country meant that many areas had to await the coming of the aeroplane before an accurate physical description could be recorded. One such expedition was that led by Donald Mackay in 1935 when the western half of the State north of the east-west railway line was aerially surveyed.

## CONSTITUTION AND GOVERNMENT

### 3.1 SYSTEM OF GOVERNMENT

South Australia is one of the six Australian States (originally constituted by Acts of the Imperial Parliament) which at Federation in 1901 ceded many of their powers on matters of national importance (*e.g.* international affairs and defence) to the Commonwealth of Australia. From time to time other powers on matters of local importance have been delegated to local governing bodies. As a result the people of South Australia are subject to the laws of a three-tier system of government. In addition statutory powers within specified fields are exercised by certain public corporations such as the State Bank of South Australia, the Electricity Trust of South Australia, the South Australian Housing Trust and the South Australian Meat Corporation.

Both the Commonwealth and the South Australian Parliaments are bicameral: in each the leader of the Government (the Prime Minister of the Commonwealth and the Premier of South Australia) is seated in the Lower House and in each the Upper House has restricted powers concerning money Bills.

#### **Electorates**

The State is a single multi-member electorate for elections for both the Commonwealth (Senate) and South Australian (Legislative Council) Parliaments. There are ten members elected from South Australia to the Commonwealth Senate; these members are elected for a period of six years with half of them generally retiring each three years.

After the next general election, the South Australian Legislative Council will consist of twenty-two members elected for a term of six years, with eleven generally retiring each

three years. At present there are twenty-one Legislative Councillors, eleven having been elected under the present system which was introduced by the Constitution and Electoral Acts Amendment Act, 1973 and ten under the system which applied before the election of 12 July 1975.

Although it is the respective Parliaments alone which have the power to make changes in the number, size, and distribution of electorates, it is customary to appoint electoral commissions to recommend in these matters.

The terms of the Commonwealth Constitution provide for changes in House of Representatives electorates in certain eventualities. Because of a prescribed relationship between population and the distribution of House of Representatives electorates, Commonwealth electoral commissions are usually appointed after each Census to consider the effect of changes in the distribution of population and, if necessary, to suggest alterations to the boundaries and distribution amongst the States of Lower House electorates.

In South Australia the boundaries of electorates are defined in a schedule to the State Constitution, and these have been changed from time to time on the recommendations of various electoral commissions which were appointed at irregular intervals with specific instructions as to how they should divide up the State. However, following an amendment to the Constitution in 1975, a permanent Electoral Commission was appointed in 1976 with instructions to divide the State into forty-seven House of Assembly electoral districts, each district having the same number of electors, with a maximum tolerance of ten per cent from the electoral quota. This Commission also has the duty to review boundaries periodically to maintain equal numbers of electors in electorates.

### **Party System**

Most members of both the Commonwealth and the South Australian Parliaments are elected by the voters from candidates pre-selected and endorsed by the major political parties. Once policy has been determined at a party meeting, members generally observe party solidarity; speaking, voting, and acting in accordance with that policy both in and out of Parliament whether the party be in government or in opposition.

### **Cabinet and Executive Government**

Both in the Commonwealth and in South Australia, executive government is based on the system which was evolved in Britain in the eighteenth century and which is generally known as 'cabinet' or 'responsible' government. Its main principles are that the head of the State, Her Majesty the Queen (or her representative, the Governor-General or Governor, acting on her behalf) should perform governmental acts on the advice of her ministers; that she should choose her principal Ministers of State from members of Parliament belonging to the party or coalition of parties commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the State; and that the Ministry should resign if it ceases to command a majority there.

The cabinet system operates chiefly by means of constitutional conventions, customs or understandings and through institutions that do not form part of the legal structure of government at all. The executive power of the Commonwealth is exercisable by the Governor-General and that of South Australia by the Governor, each being advised by an executive council which only meets for formal purposes. The whole policy of a Ministry is in practice determined by some or all of the Ministers of State, meeting without the Governor-General or Governor under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.



### *The Cabinet*

The Cabinet does not form part of the legal mechanism of government. Its meetings are private and deliberative, the actual Ministers of the day alone are present, no records of the meetings are made public and the decisions taken have in themselves no legal effect. At present the fourteen senior Ministers of the Commonwealth Government constitute the Cabinet and other Ministers only attend Cabinet meetings when required, but from 1972 to 1975 all Ministers were members of the Cabinet. In South Australia, all twelve Ministers are members of Cabinet.

As Ministers are the leaders of the party or parties commanding a majority in the popular House, the Cabinet substantially controls not only the general legislative program of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the State. In summoning, proroguing or dissolving Parliament, the Governor-General or the Governor is usually guided by the advice tendered him by the Cabinet through the Prime Minister or Premier, although legally the discretion is vested in the Governor-General or Governor himself.

### *Executive Council*

The Executive Council is usually presided over by the Governor-General or Governor, the members holding office during his pleasure. All Ministers of State must be members of the Executive Council. Commonwealth Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the cabinet system that attendance should be limited to the Ministers of the day.

The meetings of the Executive Council are formal and official in character and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings the decisions of Cabinet are, where necessary, given legal form, appointments are made, resignations accepted, proclamations issued and regulations approved.

### *Appointment of Ministers*

Legally, Ministers hold office during the pleasure of the Governor-General or Governor, but in practice the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. When a Ministry resigns the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command a majority in the popular House, and to commission him, as Prime Minister or Premier, to 'form a Ministry'—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

### **Committees**

At one stage in the consideration of every Bill each House resolves itself into Committee for freer discussion of proposed legislation than would be possible under the rules of formal debate usually applied in Parliament.

In addition there is a Committee system whereby a limited number of Members inquire into and report on particular matters thus enabling a greater volume of work to be handled more effectively. There are Joint Committees, consisting of members of both Houses, and each House has committees to attend to its own functions. Standing Committees (*e.g.* the South Australian Public Works Standing Committee) consider matters of a continuing or recurring nature, and *ad hoc* committees are formed to inquire into and report on specific matters as they arise.

Party representation on Joint and House Committees is usually proportionate to representation in Parliament or the appropriate House respectively.

### **Administration**

The pattern of public administration in South Australia is determined by the division and delegation of statutory authority already mentioned. Various aspects and areas of administration are attended to by Commonwealth and South Australian Government departments, by local government authorities, and by public corporations deriving authority and responsibility from either Commonwealth or South Australian legislation. Within this framework numerous boards and committees exercise administrative and, in some cases, judicial powers.

These various levels of administration are largely interdependent and complementary. Some items of Commonwealth legislation are completely, or almost completely, administered by State authorities, often in matters in which (the Commonwealth and the State having concurrent powers) Commonwealth legislation either supplements or supersedes State legislation, e.g. the Births, Deaths and Marriages Registration Branch applies the *Marriage Act* 1961 in this State. Performance of State functions by Commonwealth authorities is neither as frequent nor as extensive, but there are instances of the provision of services or facilities, e.g. the Commonwealth Electoral Office maintains the House of Assembly electoral roll; State land tax may be paid at Post Offices.

### **Judicature**

The degree to which South Australians are subject to the jurisdiction of Commonwealth and South Australian courts respectively varies with the type of action. Most criminal and civil actions are heard, at least originally, in State courts, but many individuals are subject exclusively to jurisdiction of Commonwealth courts in industrial matters.

Generally speaking, the decisions of the lower courts (the South Australian Magistrates and Local Courts) may be the subject of appeal to the State Supreme Court, and the decisions of this higher court, acting in either its original or appellate jurisdiction, may be the subject of appeal to the High Court of Australia.

Included in the jurisdiction of the High Court of Australia is the review of legislation to test its constitutional validity.

## **3.2 COMMONWEALTH GOVERNMENT**

### **Federation**

The Commonwealth of Australia was proclaimed on 1 January 1901 in 'An Act to constitute the Commonwealth of Australia', a statute of the Imperial Parliament, which received Royal Assent in July 1900. The draft constitution, which was enacted with only minor amendment, had been prepared at intercolonial conferences during 1897, 1898, and 1899, and was accepted at referenda during 1899 by South Australia, New South Wales, Victoria, Queensland and Tasmania, and in 1900 by Western Australia.

### **Separation of Powers**

The Constitution provides, in sections 52, 69, 86, 90 and 115, for certain powers to be vested exclusively in the Commonwealth Government and, in section 51, for certain specified fields of interest to be common to both the Commonwealth and State Governments; in cases of conflicting legislation, that of the former prevails to the extent of

the inconsistency. All other fields of interest remain the exclusive province of the State Governments until amendment is made to the Constitution Act or until the State Parliaments cede particular powers.

### Financial Resources

Since Federation the distribution of financial resources between the Commonwealth and State Governments has been an almost constant problem. Under the original terms of the Constitution three-quarters of the net revenues from the duties of customs and excise, for ten years, was returned to the States; provision also existed for general and particular grants to the States. Significant changes have been made in the distribution of financial resources since 1910. These are reviewed in some detail in Part 11—Public Finance.

## COMMONWEALTH LEGISLATURE

The Constitution provides that 'the legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives'. Provision for constitutional amendment includes a requirement that a proposed amendment must be submitted to a referendum.

### Franchise

Qualifications for franchise are possessed by any British subject, not under eighteen years of age and not disentitled on other grounds, who has lived in Australia for six months continuously. Residence in a subdivision for a period of one month before enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory except that the compulsory enrolment provisions do not relate to Aboriginal natives of Australia.

A member of the Defence Forces on service outside Australia who is a British subject not less than eighteen years of age and has lived in Australia for six months continuously is entitled to vote at Commonwealth elections, whether enrolled or not.

Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer or, persons who are holders of temporary entry permits under the *Migration Act 1958* or are prohibited immigrants under that Act are excluded from the franchise.

### Membership

Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, eighteen years of age or over, who has resided in Australia for at least three years and who is, or is qualified to become, an elector. The principal reasons for disqualification of persons otherwise eligible as members of either House are; membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the Public Service of the Commonwealth except as a member of an incorporated company of more than twenty-five persons.

## EXECUTIVE GOVERNMENT

### Governor-General

On 8 December 1977 His Excellency the Hon. Sir Zelman Cowan, AK, GCMG, QC, was sworn in as the nineteenth Governor-General of the Commonwealth. His authority as the Queen's representative is derived from Letters Patent. Instructions under the Royal Sign Manual and Signet, and the relevant sections of the Commonwealth Constitution.

**Executive Council**

Members of the Federal Executive Council are chosen, summoned and sworn by the Governor-General and hold office during his pleasure. All Ministers are members. Councillors usually retain membership for life but it is customary for attendance at meetings to be limited to Ministers of the day.

**Ministry**

Members of the forty-fourth Ministry (the third Fraser Ministry) are listed below.

**Fraser Ministry at 4 July 1978****Inner Cabinet***Prime Minister*

The Rt Hon. J. M. Fraser, CH, MP (Vic.)

*Deputy Prime Minister, Minister for Trade and Resources*

The Rt Hon. J. D. Anthony, MP (NSW)

*Minister for Industry and Commerce*

The Hon. P. R. Lynch, MP (Vic.)

*Minister for Primary Industry and Leader of the House*

The Hon. I. McC. Sinclair, MP (NSW)

*Minister for Administrative Services, Leader of the Government in the Senate and Vice-President of the Executive Council*

Senator the Hon. R. G. Withers (WA)

*Minister for Employment and Industrial Relations*

The Hon. A. A. Street, MP (Vic.)

*Minister for Transport*

The Hon. P. J. Nixon, MP (Vic.)

*Treasurer*

The Hon. J. W. Howard, MP (NSW)

*Minister for Education and Minister Assisting the Prime Minister in Federal Affairs*

Senator the Hon. J. L. Carrick (NSW)

*Minister for Foreign Affairs*

The Hon. A. S. Peacock, MP (Vic.)

*Minister for Defence*

The Hon. D. J. Killen, MP (Qld)

*Minister for Social Security*

Senator the Hon. M. G. C. Guilfoyle (Vic.)

*Minister for Finance*

The Hon. E. L. Robinson, MP (Qld)

*Minister for Aboriginal Affairs and Minister Assisting the Prime Minister (including Public Service Matters)*

The Hon. R. I. Viner, MP (WA)

**Outer Ministry***Minister for Health*

The Hon. R. J. D. Hunt, MP (NSW)

*Minister for Immigration and Ethnic Affairs*

The Hon. M. J. R. MacKellar, MP (NSW)

*Minister for the Northern Territory, Minister for Veteran's Affairs and Minister Assisting the Minister for Primary Industry*

The Hon. A. E. Adermann, MP (Qld)

*Minister for Construction and Minister Assisting the Minister for Defence*

The Hon. J. E. McLeay, MP (SA)

*Minister for National Development*

The Hon. K. E. Newman, MP (Tas)

*Minister for Science*

Senator the Hon. J. J. Webster (Vic.)

*Minister for Post and Telecommunications*

The Hon. A. A. Staley, MP (Vic)

*Attorney-General*

Senator the Hon. P. D. Durack (WA)

*Minister for Productivity*

The Hon. I. M. Macphie (Vic.)

*Minister for Business and Consumer Affairs*

The Hon. W. C. Fife, MP (NSW)

*Minister for Special Trade Representations and Minister Assisting the Minister for Trade and Resources*

Senator the Hon. R. V. Garland, MP (WA)

*Minister for Home Affairs and Minister for the Capital Territory*

The Hon. R. J. Ellicott, MP (NSW)

*Minister for Environment, Housing and Community Development and Minister Assisting the Minister for Employment and Industrial Relations*

The Hon. R. J. Groom, MP (Tas.)

**Salaries and Allowances**

From 1 June 1977 the annual salary for each member has been \$24 369 with an electorate allowance of either \$6 000 or \$7 500 depending on the area of the member's electorate. Senators receive an electoral allowance of \$6 000.

The following additional payments are also made:

Prime Minister—\$28 250 plus expense allowance of \$13 200;

Deputy Prime Minister—\$14 250 plus expense allowance of \$6 600;

Ministers (Inner Cabinet)—\$11 750 plus expense allowance of \$5 500;

Treasurer—\$13 250 plus expense allowance of \$6 600;

Leader of the House—\$11 750 plus expense allowance of \$6 600;

Ministers (Outer Ministry)—\$10 500 plus expense allowance of \$5 500;

Speaker (House of Representatives)—\$10 500 plus expense allowance of \$5 500;

President (Senate)—\$10 500 plus expense allowance of \$5 500;

Chairman of Committees (House of Representatives)—\$4 500 plus expense allowance of \$1 100;

Chairman of Committees (Senate)—\$4 500 plus expense allowance of \$1 100;

- Leader of the Opposition (House of Representatives)—\$11 750 plus expense allowance of \$6 600;  
 Deputy Leader of the Opposition (House of Representatives)—\$8 500 plus expense allowance of \$5 250;  
 Leader of the Opposition (Senate)—\$8 500 plus expense allowance of \$5 250;  
 Deputy Leader of the Opposition (Senate)—\$4 250 plus expense allowance of \$1 100;  
 Government Whip (House of Representatives)—\$4 250;  
 Opposition Whip (House of Representatives)—\$3 750;  
 Deputy Government Whip (House of Representatives)—\$1 250;  
 Deputy Opposition Whip (House of Representatives)—\$600;  
 Other Whips (House of Representatives)—\$2 500;  
 Government Whip (Senate)—\$3 500;  
 Opposition Whip (Senate)—\$3 500.

### Superannuation

The *Parliamentary Retiring Allowances Act 1948* provides for the payment of retirement benefits on the retirement or death of persons who have served as members of the Commonwealth Parliament.

All members are required to contribute for a parliamentary retiring allowance at the rate of 11.5 per cent of the monthly amount of their parliamentary allowance. Members who retire involuntarily are eligible for a retiring allowance after eight years service (or less in certain circumstances), while those who retire voluntarily and have attained the age of forty-five years are eligible after twelve years service. Where there is no entitlement to a retiring allowance the benefit is a lump sum payment comprising a refund of contributions plus a supplement, the amount of which depends on length of service and whether retirement is involuntary or voluntary.

A former Prime Minister who is over the age of forty-five years and has held office as Prime Minister for not less than two years is entitled on retirement, in addition to the normal parliamentary retiring allowance, to a non-contributory Prime Minister's retiring allowance.

A parliamentary annuity is payable to the widow or widower of a serving member or of a former member in receipt of a retiring allowance at the rate of five-sixths of the retiring allowance that was or would have been payable to the deceased. The widow or widower of a Prime Minister is entitled to an additional annuity at the rate of one-half the additional retiring allowance that was or would have been payable to the former Prime Minister. An orphan's annuity is payable to a dependent child if both parents have died.

### THE SENATE

The Senate is the Upper House. Originally it was intended that this House should protect the rights and interests of the States, but with the growth of the parliamentary system of party-line voting, its role has become mainly that of a house of review.

### Representation

At present the Senate consists of sixty-four members—ten from each State, two from the Australian Capital Territory and two from the Northern Territory. The original provision was that each State, voting as a single electorate, should elect six Senators but by the Representation Act of 1948, which was effective for the 1949 elections, the number was raised to ten. By the *Senate (Representation of Territories) Act 1973*, the number of Senators was increased from sixty to sixty-four with the addition of two Senators from

both the Australian Capital Territory and the Northern Territory. The Territories were represented in the Senate for the first time following the general election of 13 December 1975. Except in extraordinary circumstances each Senator is elected for a term of six years, five from each State and all Territory Senators retiring every three years.

After the election of 10 December 1977 representation in the Senate was as follows:

State or Territory	ALP	LP	NCP	AD	IND
New South Wales .....	4	4	1	1	—
Victoria .....	4	4	1	1	—
Queensland .....	4	3	3	—	—
<b>South Australia .....</b>	<b>4</b>	<b>6</b>	—	—	—
Western Australia .....	4	6	—	—	—
Tasmania .....	4	5	—	—	1
Australian Capital Territory .....	1	1	—	—	—
Northern Territory .....	1	—	1	—	—

ALP Australian Labor Party LP Liberal Party of Australia NCP National Country Party  
AD Australian Democrats IND Independent

The members representing South Australia in the Senate are:

*To Retire 30 June 1981:*

Davidson, Gordon Sinclair (LP)

Bishop, the Hon. Reginald (ALP)

Jessop, Donald Scott (LP)

Cavanagh, the Hon. James Luke (ALP)

Laucke, the Hon. Condor Louis (LP)

*To Retire 30 June 1984:*

Messner, Anthony John (LP)

McLaren, Geoffrey Thomas (ALP)

Young, Harold William (LP)

Elstob, Ronald Charles (ALP)

Teague, Baden Chapman (LP)

#### Elections for the Senate: Voting, South Australia

Date of Election	Electors Enrolled	Votes Recorded		Informal Votes	
		Number	Percentage of Electors Enrolled	Number	Percentage of Votes Recorded
10 December 1949 .....	434 224	420 437	96.82	48 838	11.62
28 April 1951 .....	440 454	427 593	97.08	24 792	5.80
9 May 1953 .....	453 496	437 583	96.49	21 297	4.87
10 December 1955 .....	462 747	444 827	96.13	39 802	8.95
22 December 1958 .....	490 930	473 832	96.52	36 677	7.74
9 December 1961 .....	521 396	501 312	96.15	28 284	5.64
5 December 1964 .....	551 341	528 464	95.85	39 421	7.46
25 November 1967 .....	594 480	568 823	95.68	32 864	5.78
21 November 1970 .....	639 807	609 268	95.23	42 306	6.94
18 May 1974 .....	750 308	722 434	96.28	82 191	11.38
13 December 1975 .....	789 004	759 369	96.24	75 540	9.95
10 December 1977 .....	824 205	783 669	95.08	81 451	10.39

#### Voting System

Before the election in 1949 the system of preferential voting was used for Senate elections, but for the 1949 and subsequent elections a system of proportional

representation has been used. This system was discussed in detail on pages 55-6 of the *South Australian Year Book 1971*.

### THE HOUSE OF REPRESENTATIVES

#### Representation

The members of the House of Representatives (the Lower House) are elected in single-member electorates. The number of electorates into which a State is divided is determined by the proportion that the population of the State bears to the population of the Commonwealth as a whole. Section 24 of the Constitution provides that the number of members in the House of Representatives shall be as nearly as possible twice the number of Senators and prescribes the formula to be used, 'until the Parliament otherwise provides', for allocating to each State its share of the available seats but stipulates that no original State shall have less than five members in the House. In addition one member is elected from the Northern Territory and two members are elected from the Australian Capital Territory. Preferential voting is used for elections for the House of Representatives.

Following an electoral redistribution of House of Representatives seats in 1977 by Federal Electorate Redistribution Commissioners, the number of members of the House of Representatives was reduced from 127 to 124. The number of South Australian seats in the House of Representatives was reduced from 12 to 11 with the seat of Angus being abolished.

After the election of 10 December 1977 representation in this House was as follows:

Party	NSW	Vic.	Qld	SA	WA	Tas.	ACT	NT	Total
ALP .....	17	10	3	6	1	—	1	—	38
LP .....	18	20	9	5	9	5	1	—	67
NCP .....	8	3	7	—	—	—	—	1	19

ALP Australian Labor Party LP Liberal Party of Australia NCP National Country Party

#### House of Representatives, 1977 Election

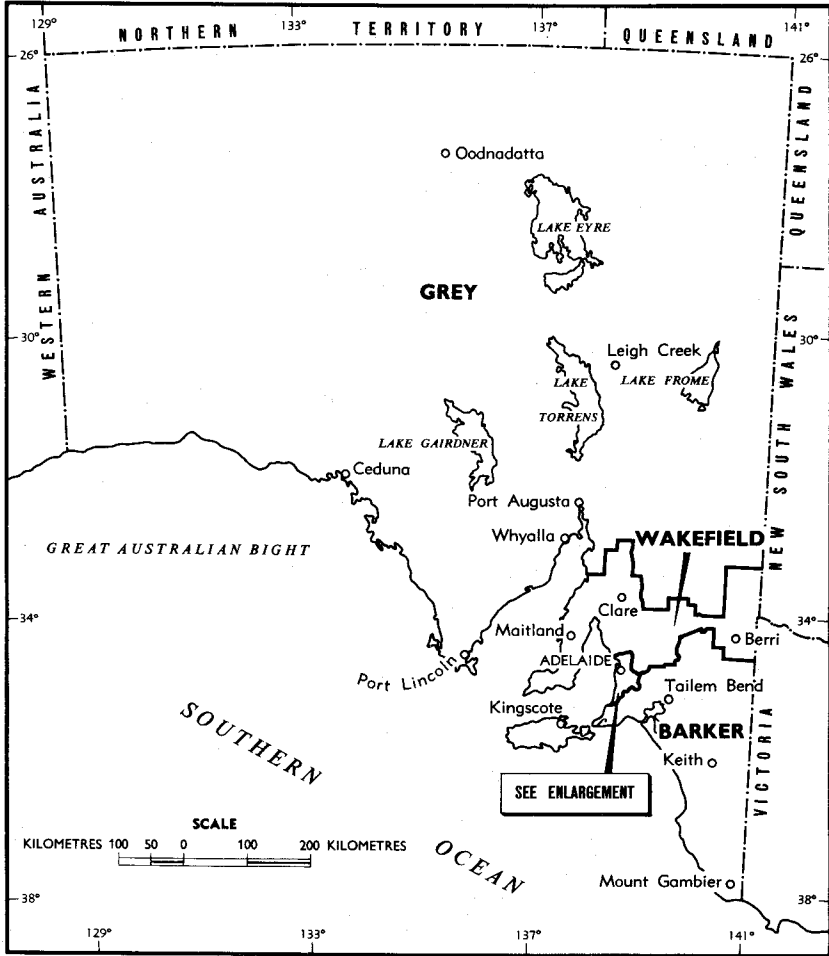
##### Voting and Party Representation in South Australian Electorates

Electorate	Electors on Roll	Electors Voting	Successful Candidates		
			Name	Party	First Preference Votes
Adelaide .....	77 831	73 098	Hurford, C. J.	ALP	35 786
Barker .....	73 369	70 029	Porter, J. R.	LP	43 129
Bonython .....	73 755	69 638	Blewett, N.	ALP	33 772
Boothby .....	75 691	71 897	McLeay, Hon. J. E.	LP	40 358
Grey .....	72 751	68 935	Wallis, L. G.	ALP	31 221
Hawker .....	77 262	72 867	Jacobi, R.	ALP	31 685
Hindmarsh .....	77 158	73 627	Cameron, Hon. C. R.	ALP	38 976
Kingston .....	72 465	70 680	Chapman, H. G. P.	LP	31 254
Port Adelaide .....	75 357	71 398	Young, M. J.	ALP	40 497
Sturt .....	74 785	71 509	Wilson, I. B. C.	LP	35 300
Wakefield .....	72 781	69 991	Giles, G. O'H.	LP	42 077



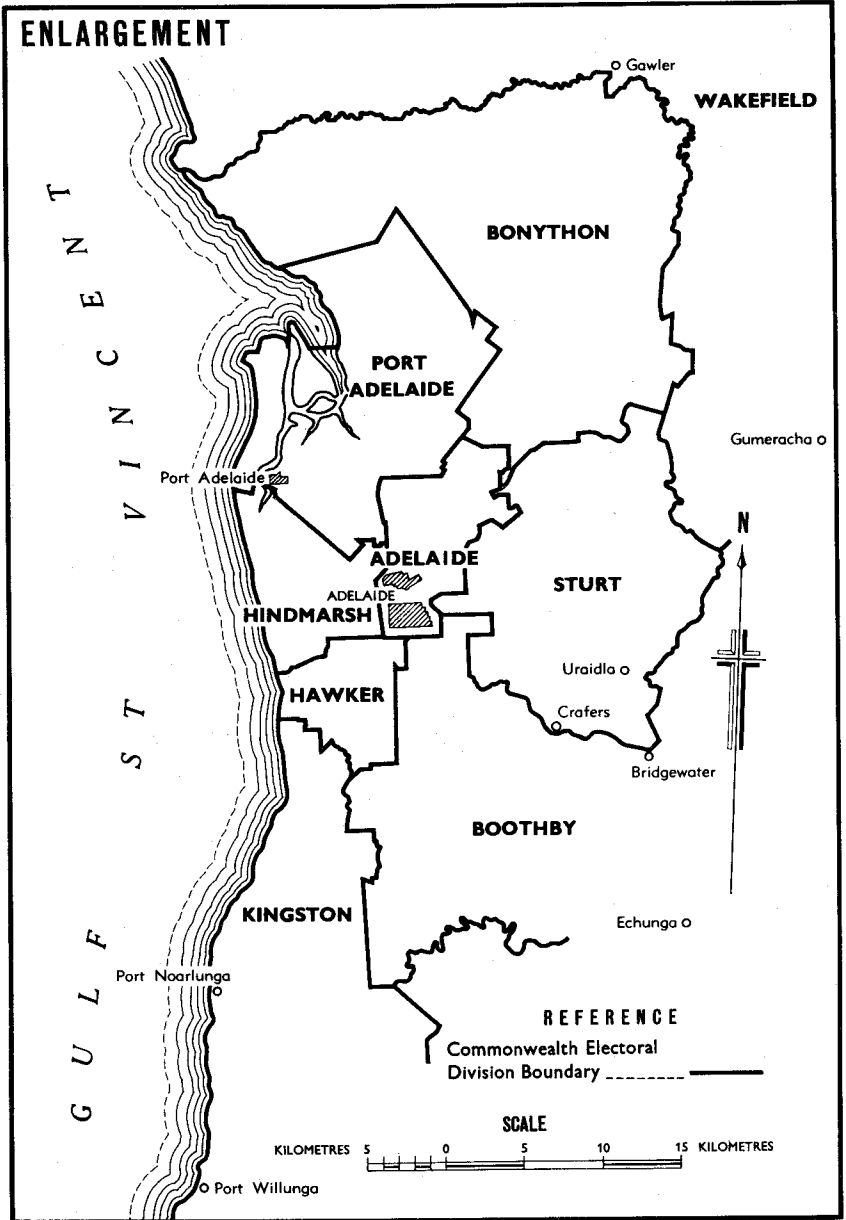
# SOUTH AUSTRALIA COMMONWEALTH ELECTORAL DIVISIONS

As proclaimed 11 November 1977



# PORTION OF SOUTH AUSTRALIA COMMONWEALTH ELECTORAL DIVISIONS

As proclaimed 11 November 1977



## Elections for the House of Representatives: Voting, South Australia

Date of Election	Electors Enrolled	Votes Recorded		Informal Votes	
		Number	Percentage of Electors Enrolled	Number	Percentage of Votes Recorded
29 May 1954 .....	455 872	(a)357 854	(a)96.77	8 812	2.46
10 December 1955 .....	462 747	444 827	96.13	18 050	4.06
22 December 1958 .....	490 930	473 832	96.52	15 619	3.30
9 December 1961 .....	521 396	501 312	96.15	15 629	3.12
30 November 1963 .....	541 536	523 135	96.60	13 963	2.67
26 November 1966 .....	585 465	563 341	96.22	16 220	2.88
25 October 1969 .....	624 626	599 719	96.01	20 562	3.43
2 December 1972 .....	671 081	644 211	96.00	16 845	2.61
18 May 1974 .....	750 308	722 434	96.28	20 311	2.81
13 December 1975 .....	789 004	759 369	96.24	18 201	2.40
10 December 1977 .....	824 205	783 669	95.08	26 461	3.38

(a) Contested electorates only.

## REFERENDA

Alteration to the Constitution must be initiated in the Commonwealth Parliament and requires the approval of a majority of electors voting in a majority of the States as well as a majority of all the electors voting in the Commonwealth as a whole.

Of the thirty-six proposals so far submitted to the people of Australia for amendment to the Constitution, only eight have been approved (one in each of 1906, 1910, 1928, 1946 and 1967, and three in 1977). In addition proposals concerning compulsory overseas military service were submitted to the people in 1916 and 1917 respectively; both proposals failed to gain the necessary majority of votes.

At the most recent referendum, held on 21 May 1977, four alterations to the Constitution were proposed. Three of the four referendum proposals were approved, but the Constitution Alteration (Simultaneous Elections) Referendum was defeated because it recorded a majority of votes in only three States (although it was approved by the majority of electors in Australia).

## 3.3 GOVERNMENT OF SOUTH AUSTRALIA

The Constitution Act, 1855-1856, which inaugurated the system of responsible government in South Australia, was passed and came into force on 24 October 1856. A summary of early constitutional history and the introduction of responsible government was included on pages 60-2 of the *South Australian Year Book* 1971.

## VICE-REGAL REPRESENTATION

Keith Douglas Seaman, OBE, was sworn in as the Queen's representative in South Australia on 1 September 1977.

The title of the vice-regal representative has been varied from time to time. The first three holders of the Office were styled 'Governor and Commander-in-Chief', the next two, 'Lieutenant-Governor', and the following two, 'Captain-General and Governor-in-Chief'. The title then reverted to its original form until Federation in 1901. Since then, because of the appointment of a 'Governor-General and Commander-in-Chief in and over

the Commonwealth', the holder of the State office has been described simply as 'Governor', and this title is used in the following table, which lists occupants of the office since the foundation of South Australia.

As titular head of the Government of South Australia the Governor exercises powers, duties, and functions, similar to those of a constitutional sovereign. On the one hand he is indirectly responsible to the Imperial Parliament through the Secretary of State for Foreign and Commonwealth Affairs, and on the other hand he usually acts on the advice of his Ministers, who take the responsibility for their advice. Nevertheless, the Governor retains important spheres of discretionary action and is thus enabled to maintain something of a safeguard against malpractice and injustice, particularly in extreme circumstances. To ensure continuity of services, the Governor has power to appropriate up to one per cent of the total amount appropriated from the State's general revenue by the Appropriation Acts for public service without specific Parliamentary authority.

### Governors of South Australia

Name	From	To
Captain John Hindmarsh, RN, KH	28 December 1836	16 July 1838
Lt-Col George Gawler, KH	17 October 1838	15 May 1841
George Grey	15 May 1841	25 October 1845
Lt-Col Frederick Holt Robe	25 October 1845	2 August 1848
Sir Henry E. F. Young	2 August 1848	20 December 1854
Sir Richard G. MacDonnell, CB	8 June 1855	4 March 1862
Sir Dominick Daly	4 March 1862	19 February 1868
Rt Hon. Sir James Fergusson, Bart	16 February 1869	18 April 1873
Sir Anthony Musgrave, KCMG	9 June 1873	29 January 1877
Lt-Gen. Sir Wm F. D. Jervois, GCMG, CB	2 October 1877	9 January 1883
Sir Wm C. F. Robinson, GCMG	19 February 1883	5 March 1889
Rt Hon. the Earl of Kintore, PC, GCMG	11 April 1889	10 April 1895
Sir Thomas F. Buxton, Bart, GCMG	29 October 1895	29 March 1899
Rt Hon. the Lord Tennyson, KCMG	10 April 1899	17 July 1902
Sir George R. Le Hunte, KCMG	1 July 1903	18 February 1909
Admiral Sir Day Hort Bosanquet, GCVO, KCB	18 February 1909	22 March 1914
Lt-Col Sir Henry L. Galway, KCMG, DSO	18 April 1914	30 April 1920
Lt-Col Sir Wm E. G. Archibald Weigall, KCMG	9 June 1920	30 May 1922
Lt-Gen. Sir George T. M. Bridges, KCB, KCMG, DSO	4 December 1922	4 December 1927
Brig.-Gen. the Hon. Sir A. G. A. Hore- Ruthven, VC, KCMG, CB, DSO	14 May 1928	26 April 1934
Maj.-Gen. Sir W. J. Dugan, KCMG, CB, DSO	28 July 1934	23 February 1939
Sir Charles M. Barclay-Harvey, KCMG	12 August 1939	26 April 1944
Lt-Gen. Sir C. W. M. Norrie, KCMG, CB, DSO, MC	19 December 1944	19 June 1952
Air Vice-Marshal Sir Robert A. George, KCMG, KCVO, KBE, CB, MC	23 February 1953	7 March 1960
Lt-Gen. Sir Edric M. Bastyan, KCMG, KCVO, KBE, CB	4 April 1961	1 June 1968
Maj.-Gen. Sir James W. Harrison, KCMG, CB, CBE	4 December 1968	16 September 1971
Sir Mark L. Oliphant, KBE	1 December 1971	1 December 1976
Sir Douglas R. Nicholls, KCVO, OBE	1 December 1976	30 April 1977
Keith Douglas Seaman, OBE	1 September 1977	

A Governor is normally appointed for a term of five years, but he can be reappointed for one or more subsequent terms. At present he is granted a basic salary of \$20 000 a year and an expense allowance which is altered in accordance with the Consumer Price Index number for Adelaide. The amount appropriated from Consolidated Revenue for the Governor's salary and allowances for 1977-78 was \$54 900. The Governors' Pension Act, 1976 provides for a pension to be paid to former Governors and to the spouses of deceased Governors.

In the absence or prolonged illness of a Governor other persons have been appointed to administer the government of the State. These persons have been variously styled 'Lieutenant-Governor', 'Deputy-Governor', 'Deputy Lieutenant-Governor', and 'Administrator', and several of them have held office more than once. The eighteen persons so appointed have been:

Name	Occupancy of Office		Occasions in Office	Total Period	
	First	Most Recent		Years	Days
George Milner Stephen . . . . .	16/7/1838	17/10/1838	1	—	93
Boyle Travers Finnis . . . . .	20/12/1854	8/6/1855	1	—	170
Lt-Col Francis G. Hamley . . . . .	19/2/1868	16/2/1869	1	—	364
Maj. James Harwood Locke . . . . .	6/4/1870	5/5/1870	1	—	29
Hon. Sir Richard D. Hanson . . . . .	7/12/1872	9/6/1873	1	—	184
Rt Hon. Sir Samuel J. Way, Bart . . . . .	29/1/1877	17/11/1915	65	6	117
William W. Cairns, CMG . . . . .	24/3/1877	17/5/1877	1	—	54
Hon. James P. Boucaut . . . . .	26/10/1885	16/9/1897	9	—	263
Hon. William H. Bunday . . . . .	30/7/1888	9/8/1888	1	—	10
Hon. Sir G. J. R. Murray, KCMG . . . . .	25/9/1916	9/2/1942	103	6	47
Hon. Thomas Stanley Poole . . . . .	20/3/1925	22/11/1925	2	—	240
Hon. Sir H. Angas Parsons . . . . .	11/6/1935	19/2/1942	6	—	54
Hon. Sir J. Mellis Napier, KCMG . . . . .	21/4/1942	17/5/1973	179	9	140
Hon. Sir Herbert Mayo . . . . .	15/10/1946	9/1/1965	25	—	187
Hon. Sir G. S. Reed . . . . .	24/7/1951	4/11/1957	5	—	31
Hon. J. J. Bray . . . . .	25/6/1968	5/8/1973	8	—	72
Hon. D. S. Hogarth . . . . .	8/7/1971	8/7/1971	1	—	1
Walter R. Crocker, KBE . . . . .	7/9/1973	7/9/1977	25	1	5

### CABINET AND EXECUTIVE GOVERNMENT

In South Australia all Ministers are members of the Cabinet and all Ministers are *ex officio* members of the Executive Council. Although the Governor may, subject to any law enacted by the Legislature, appoint other persons to the Executive Council, membership is in practice limited to Ministers of the day.

The Constitution Act of 1855-1856 provided that every Minister must be a member of either the Legislative Council or the House of Assembly or become a member within three months of appointment. However, in 1873 an amendment was made to the Act authorising the Governor to appoint an Attorney-General from outside Parliament; this provision was retained until 1953, and four Attorneys-General were so appointed.

The maximum number of Ministers has been varied from time to time. In 1856 the number was five; in 1873, six; 1901, four; 1908, six; 1953, eight; 1965, nine; 1970, ten; 1973, eleven; and 1975, twelve. In 1908 it was specified that no more than four Ministers were to be in the House of Assembly, but in 1953 this limit was increased to five, in 1965 to six, in 1970 to seven and in 1973 to eight. This restriction on the number of Ministers from the lower House was removed by the Constitution Act Amendment Act (No. 2), 1975, and now it is permissible for all Ministers to be selected from the House of Assembly.

The Constitution of 1856 provided for salary payments to Ministers only and salary payments to other members did not commence until 1887. The 1977-78 appropriation for salaries and allowances for twelve Ministers is \$446 110 which includes salaries and allowances received by Ministers as members.

Cabinet, as such, has no legal powers. Some Cabinet decisions result in the initiation and subsequent enactment of legislation; other decisions become legally binding through ratification by Executive Council or through powers vested in individual Ministers for the administration and control of their respective departments of government. In addition to government departments, statutory authorities also come under some degree of ministerial or parliamentary oversight.

### Premiers

Since 1856 the following thirty-six persons have held the office of Premier.

#### Premiers of South Australia

Name	Dates of Office	Total Period in Office	
		Years	Days
Hon. Boyle T. Finnis .....	24/10/1856- 21/8/1857	—	301
Hon. John Baker .....	21/8/1857- 1/9/1857	—	11
Hon. Robert R. Torrens .....	1/9/1857- 30/9/1857	—	29
Hon. Richard D. Hanson .....	30/9/1857- 9/5/1860	2	222
Hon. Thomas Reynolds .....	9/5/1860- 8/10/1861	1	152
Hon. G. M. Waterhouse .....	8/10/1861- 4/7/1863	1	269
Hon. Francis S. Dutton .....	4/7/1863- 15/7/1863;		
	22/3/1865- 20/9/1865	—	193
Hon. Sir Henry Ayers, KCMG .....	15/7/1863- 4/8/1864;		
	20/9/1865-23/10/1865;		
	3/5/1867- 24/9/1868;		
	13/10/1868- 3/11/1868;		
	22/1/1872- 22/7/1873	4	35
Hon. Arthur Blyth .....	4/8/1864- 22/3/1865;		
	10/11/1871- 22/1/1872;		
	22/7/1873- 3/6/1875	2	254
Hon. John Hart, CMG .....	23/10/1865- 28/3/1866;		
	24/9/1868-13/10/1868;		
	30/5/1870-10/11/1871	1	339
Hon. James P. Boucaut, QC .....	28/3/1866- 3/5/1867;		
	3/6/1875- 6/6/1876;		
	26/10/1877- 27/9/1878	3	11
Hon. H. B. Strangways .....	3/11/1868- 30/5/1870	1	208
Hon. John Colton .....	6/6/1876-26/10/1877;		
	16/6/1884- 16/6/1885	2	142
Hon. William Morgan .....	27/9/1878- 24/6/1881	2	270

## Premiers of South Australia (continued)

Name	Dates of Office	Total Period in Office	
		Years	Days
Hon. John C. Bray .....	24/6/1881- 16/6/1884	2	358
Hon. Sir J. W. Downer, KCMG, QC .....	16/6/1885- 11/6/1887; 15/10/1892- 16/6/1893	2	239
Hon. Thomas Playford .....	11/6/1887- 27/6/1889; 19/8/1890- 21/6/1892	3	323
Hon. J. A. Cockburn .....	27/6/1889- 19/8/1890	1	53
Hon. F. W. Holder .....	21/6/1892-15/10/1892; 8/12/1899- 15/5/1901	1	274
Rt Hon. C. C. Kingston, QC .....	16/6/1893- 1/12/1899	6	168
Hon. V. L. Solomon .....	1/12/1899- 8/12/1899	—	7
Hon. J. G. Jenkins .....	15/5/1901- 1/3/1905	3	290
Hon. Richard Butler .....	1/3/1905- 26/7/1905	—	147
Hon. Thomas Price .....	26/7/1905- 5/6/1909	3	314
Hon. A. H. Peake .....	5/6/1909- 3/6/1910; 17/2/1912- 3/4/1915;		
	14/7/1917- 8/4/1920	6	312
Hon. John Verran .....	3/6/1910- 17/2/1912	1	259
Hon. Crawford Vaughan .....	3/4/1915- 14/7/1917	2	102
Hon. Sir H. N. Barwell, KCMG .....	8/4/1920- 16/4/1924	4	8
Hon. John Gunn .....	16/4/1924- 28/8/1926	2	134
Hon. Lionel L. Hill .....	28/8/1926- 8/4/1927; 17/4/1930- 13/2/1933	3	160
Hon. R. L. Butler .....	8/4/1927- 17/4/1930; 18/4/1933- 5/11/1938	8	210
Hon. R. S. Richards .....	13/2/1933- 18/4/1933	—	64
Hon. Sir Thomas Playford, GCMG .....	5/11/1938- 10/3/1965	26	125
Hon. F. H. Walsh .....	10/3/1965- 1/6/1967	2	83
Hon. D. A. Dunstan, QC .....	1/6/1967- 17/4/1968; 2/6/1970-		
Hon. R. S. Hall .....	17/4/1968- 2/6/1970	2	47

## Ministry

The Ministry is the sixty-third to hold office. The members at 2 December 1977 were:

*Premier, Treasurer and Minister of Immigration and Ethnic Affairs*

Hon. Donald Allan Dunstan, QC, MP

*Deputy Premier, Minister of Works, Minister for the Environment and Minister of Marine*

Hon. James Desmond Corcoran, MP

*Minister of Mines and Energy and Minister for Planning*

Hon. Hugh Richard Hudson, MP

*Minister of Health and Minister Assisting the Deputy Premier*

Hon. Donald Hubert Louis Banfield, MLC

*Minister of Transport and Minister of Local Government*

Hon. Geoffrey Thomas Virgo, MP

*Minister of Lands, Minister of Irrigation, Minister of Repatriation and Minister of Tourism, Recreation and Sport*

Hon. Thomas Mannix Casey, MLC

*Minister of Education*

Hon. Donald Jack Hopgood, MP

*Minister of Agriculture, Minister of Forests and Minister of Fisheries*

Hon. Brian Alfred Chatterton, MLC

*Minister of Labour and Industry and Minister Assisting the Premier in Industrial Democracy*

Hon. John David Wright, MP

*Minister of Community Welfare*

Hon. Ronald George Payne, MP

*Attorney-General and Minister of Prices and Consumer Affairs*

Hon. Peter Duncan, MP

*Chief Secretary and Minister Assisting the Premier*

Hon. Donald William Simmons, DFC, MP

### PARLIAMENT

Parliament is summoned, prorogued, or dissolved, by proclamation issued by the Governor. The two Houses of Parliament are the Legislative Council (Upper House) and the House of Assembly (Lower House). The following table gives the dates and the number of House of Assembly sitting days for Parliamentary sessions in recent years.

Parliamentary Session	Period	House of Assembly Sitting Days
1969	17/6/69-5/12-69	65
1970-71	14/7/70-8/4/71	75
1971-72	13/7/71-6/4/72	74
1972	8/7/72-24/11/72	54
1973	19/6/73-27/6/73	4
1973-74	24/7/73-28/3/74	69
1974-75	23/7/74-18/6/75	74
1975-76	5/8/75-19/2/76	45
1976-77	8/6/76-28/4/77	65

### Voting System

Members for both Houses are elected by secret ballot; the preferential system of voting is used. In filling the vacancy for each House of Assembly District the candidate who has received the largest number of first preference votes is elected if this number constitutes an absolute majority (*i.e.* greater than one-half of the total formal votes). If no candidate has received an absolute majority of first preference votes a second count is made in which the second preferences of the candidate who has received the fewest first preference votes are distributed. This distribution of second preferences of the successive candidate with the fewest votes is repeated until one candidate has received an absolute majority of votes.



For Legislative Council elections before 12 July 1975, the State was divided into five 4-member electoral districts with two members for each district retiring at each Legislative Council election. The first vacancy in each district was filled in the same manner as those in the single-member House of Assembly districts discussed above. The second vacancy in each district was filled by re-arranging all ballot papers according to first preferences and allotting each ballot paper of the first elected candidate according to the second preferences. If a candidate then had an absolute majority he was elected, otherwise subsequent counts were made eliminating candidates with the fewest votes until one remaining candidate had received an absolute majority.

However, as a result of the passing of the Constitution and Electoral Acts Amendment Act, 1973, the number of electorates and the voting system has been changed for Legislative Council elections commencing with the election of 12 July 1975. This Act has increased the number of members of the Legislative Council from twenty to twenty-two and has introduced a system of proportional representation with the whole of the State as a single multi-member electoral district. Under the new system electors register preferences for groups of candidates rather than individuals (although a group may contain only one candidate) and a candidate's election depends on the proportion of votes his group obtains and his position within the group on the ballot paper. Because an optional preference voting system applies it is not necessary for electors to indicate preferences for each group in order to register formal votes.

### **Members, Qualifications, and Privileges**

Certain requirements must be met before a person qualifies for membership of the South Australian Parliament. The following persons are not eligible for membership of either House: Judges, persons under the age of eighteen, aliens, members of the Commonwealth Parliament, persons who are not residents of South Australia, holders of contracts for the Public Service, occupants of offices of profit under the Crown, persons of unsound mind, persons attainted of treason, undischarged bankrupts and insolvent persons, and, amongst others, persons under sentence for any offence punishable by imprisonment for at least a year. Other requirements applicable only to one House or the other are mentioned on pages 70-1.

Each member is required to take an oath or make an affirmation of allegiance to the Crown before being permitted to sit or vote in Parliament. All members of the Parliament are entitled to such privileges, immunities, and powers as were held by members of the House of Commons on 24 October 1856, the date on which the Constitution Act came into force.

### **Franchise**

The franchises for the separate Houses are shown on page 71. South Australia was the first, at the general election of 25 April 1896, of the Australian States to give voting rights to women, and the existence of this provision in this State contributed to the decision to include full adult franchise in proposals for Federation. For the first eighty-five years of responsible government voting for both Houses of Parliament was voluntary but the Electoral Act Amendment Act of 1942 made voting for the House of Assembly compulsory for persons whose names appear on the House of Assembly Electoral Roll.

### **Number of Members and Electorates**

Alterations made to the number of members and number of electorates for each of the two Houses are shown in the following table:

Date	Legislative Council		House of Assembly	
	Members	Electorates	Members	Electorates
1856 .....	18	1	36	17
1863 .....	18	1	36	18
1875 .....	18	1	46	22
1882 .....	24	4	46	22
1884 (a) .....	24	4	52	26
1890 .....	24	4	54	27
1902 .....	18	4	42	13
1912 (b) .....	18	4	40	12
1915 .....	20	5	46	19
1938 .....	20	5	39	39
1970 .....	20	5	47	47
1975 .....	21	1	47	47

(a) Separate representation for Northern Territory.

(b) Cession of Northern Territory to Commonwealth Government control.

### Functions of Parliament

The function of Parliament is to legislate for the peace, order, and good government of the State. Principal among the tasks of Parliament is the raising of revenue and the appropriation of funds for the development and maintenance of the State through its public services.

Legislation may be initiated by any member in either House except that money Bills must be initiated by Ministers of the Crown in the House of Assembly; the Legislative Council may suggest amendments to money Bills although it may not effect such amendments itself. Most Bills are initiated by the Government as a result of the deliberations of Cabinet. The Opposition and Independent members usually confine their activities to examination, criticism, and amendment, of Government measures. Legislation, other than to amend the Constitution, may be passed by a simple majority of the votes of the members present.

### Constitutional Amendment

Alteration to the Constitution Act is in the hands of Parliament itself. An alteration to the Constitution requires at the second and third readings of the Bill acceptance by a majority of all the members (not only those present or voting) of each House voting separately.

### Deadlocks

A deadlock results from the refusal by the Upper House to pass the same (or substantially the same) Bill during two consecutive Parliaments, provided that a general election for the Lower House has been held between the refusals and that on the second occasion an absolute majority of all the members of the Lower House voted in favour of the Bill at its second and third readings. In the event of a deadlock between the Houses, provision is made for the dissolution of both Houses.

### Life of Parliament

Term of office of each Parliament is generally three years from the day on which it first meets for the dispatch of business but it may be prorogued or dissolved by the Governor before the expiration of this period.

Legislation introduced in 1933 extended the life of the twenty-eighth Parliament to five years and in 1937 the Constitution Act was amended for each subsequent Parliament to have a life of five years. However, the twenty-ninth Parliament repealed this provision and re-introduced three-year Parliaments.

### Salaries and Allowances

Salaries and allowances for members of Parliament are determined periodically by the Parliamentary Salaries Tribunal, pursuant to the provisions of the Parliamentary Salaries and Allowances Act, 1965-1974.

The annual salary from 1 January 1978 is \$21 300 per member with allowances of between \$3 340 and \$12 000 depending on the area of the member's electorate and the distance from the City of Adelaide. The following additional payments are also made:

Premier and Treasurer—\$25 200, plus expense allowance of \$3 380.

Deputy Premier—\$17 700, plus expense allowance of \$2 730.

Leader of the Government in the Legislative Council—\$15 400, plus expense allowance of \$2 600.

Other Ministers—\$14 500, plus expense allowance of \$2 280.

President of Legislative Council and Speaker of House of Assembly—each \$8 400, plus expense allowance of \$850.

Chairman of Committees, House of Assembly—\$4 050, plus expense allowance of \$380.

Leader of the Opposition, House of Assembly—\$14 500, plus expense allowance of \$2 280.

Leader of the Opposition, Legislative Council—\$5 600, plus expense allowance of \$720.

Deputy Leader of the Opposition, House of Assembly—\$5 600, plus expense allowance of \$720.

Government Whip—\$2 825.

Opposition Whip—\$2 825.

In addition allowances are paid to the members of the various Parliamentary Committees.

### Superannuation

All members are required to contribute to a Superannuation Fund established under the Parliamentary Superannuation Act, 1974, which provides for the payment of superannuation pensions to persons, or widows or widowers or eligible children of persons, who have served as members of the State Parliament. No member can qualify for a pension until he has served a minimum of six years.

The standard contribution to this fund is 11·5 per cent of salary, presently \$2 450 a year, with optional additional contributions available to all Ministers and Officers of Parliament and Members of Parliamentary Committees. According to the length of service the pension payable to ordinary members varies between 41·2 per cent of basic salary (presently \$8 776 a year) and 75 per cent of basic salary (presently \$15 975 a year). Greater amounts of pension accrue to those members who have made additional contributions based on additional salary as a Minister or an office holder.

At 30 June 1977 there were sixty-eight contributors to the fund; twenty-seven ex-members and twenty-one widows were in receipt of pensions.

### Cost of Parliamentary Government

The following table shows, in broad groups, the expenditure incurred in the operation of the parliamentary system in South Australia, comprising the Governor, the Ministry, the Legislative Council, House of Assembly and electoral activities.

#### Cost of Parliamentary Government, South Australia

Particulars	1973-74	1974-75	1975-76	1976-77
			\$'000	
Governor's Establishment .....	261	352	324	470
Ministry .....	268	304	407	457
Parliament:				
Legislative Council (a) .....	275	310	443	503
House of Assembly (a) .....	633	719	946	1 078
Other (b) .....	1 445	2 004	2 372	2 861
Total Parliament .....	2 353	3 033	3 761	4 442
Electoral .....	277	156	627	395
Royal Commissions, Select Committees, etc .....	31	51	89	231
<b>Total .....</b>	<b>3 190</b>	<b>3 895</b>	<b>5 207</b>	<b>5 995</b>

(a) Allowances to members (including Ministers' salaries as members), travelling and other expenses.

(b) Government contribution to members' superannuation funds, printing, reporting staff, library, etc.

### LEGISLATIVE COUNCIL

#### Members and Electorates

Before the passing of the Constitution and Electoral Acts Amendment Act, 1973 each member of the Legislative Council, in addition to fulfilling the general requirements mentioned on page 67, must have attained the age of thirty years, have been a British subject, and have resided in the State for at least three years. For the purpose of electing members to the Council the State was divided into five electorates each having four members. Each electorate normally elected two members every three years, and each member occupied his seat for a minimum of six years. When a casual vacancy occurred because of the death, resignation or disqualification of a member, such a casual vacancy was filled, at a by-election in the particular electorate, for the unexpired portion of the previous member's term.

The Constitution and Electoral Acts Amendment Act, 1973, assented to on 22 November 1973, increased the number of members in the Legislative Council from twenty to twenty-two and reduced the number of electorates to one with the whole State becoming a single electorate with members elected on a proportional representation basis. This amendment will not become fully effective for two general elections as only half the Legislative Councillors retire at each election and eleven members (not ten as previously) are now elected at each general Legislative Council election. At the general election of 12 July 1975, eleven members were elected to the Legislative Council and at present there are twenty-one members in this House. In future casual vacancies will be filled by a person chosen at a joint sitting of the members of both the Legislative Council and House of Assembly.

**Franchise**

Voting for the Legislative Council is voluntary for those persons whose names are on the Legislative Council Electoral Roll. Under the Constitution and Electoral Acts Amendment Act, 1973, all names which appear on the House of Assembly Electoral Roll are included on the Legislative Council Electoral Roll. Thus, all electors entitled to vote at House of Assembly elections are entitled also to vote at Legislative Council elections. Qualifications for House of Assembly electors are discussed below.

**President and Chairman of Committees**

At the first meeting of the Council in each Parliament the members choose one from among their number to fill the position of President and Chairman of Committees. The person so elected is then entitled to a casting vote only.

**HOUSE OF ASSEMBLY****Seat of Government**

The House of Assembly can be regarded as the more important Chamber in that the Government of the day holds its position as such only so long as it controls a majority in this House. When it no longer controls such a majority in vital issues, particularly 'money Bills', the Government must resign or go to the polls. Once defeated in the Lower House on a 'money Bill', the government is unable to finance the administration of the State.

**Franchise**

A British subject at least eighteen years of age who:

- (i) has lived continuously in Australia for at least six months, and in South Australia for at least three months, and in a Subdivision for at least one month immediately preceding the date of his or her claim for enrolment; or
- (ii) is or has been (as qualified by the Constitution Act) a member of the Commonwealth Naval, Military or Air Force, or a member of the Mercantile Marine, during any war in which the Commonwealth is or has been engaged;

is entitled to vote at an election for a Member of the House of Assembly if, at the time of the election, he or she is enrolled on the Electoral Roll for a Subdivision of the Assembly District in which the election is held, and is not of unsound mind.

Persons convicted of an offence punishable with imprisonment for one year or more and persons attainted of treason are entitled to the same voting rights as ordinary citizens under the provisions of the Constitutional Act Amendment Act, 1976.

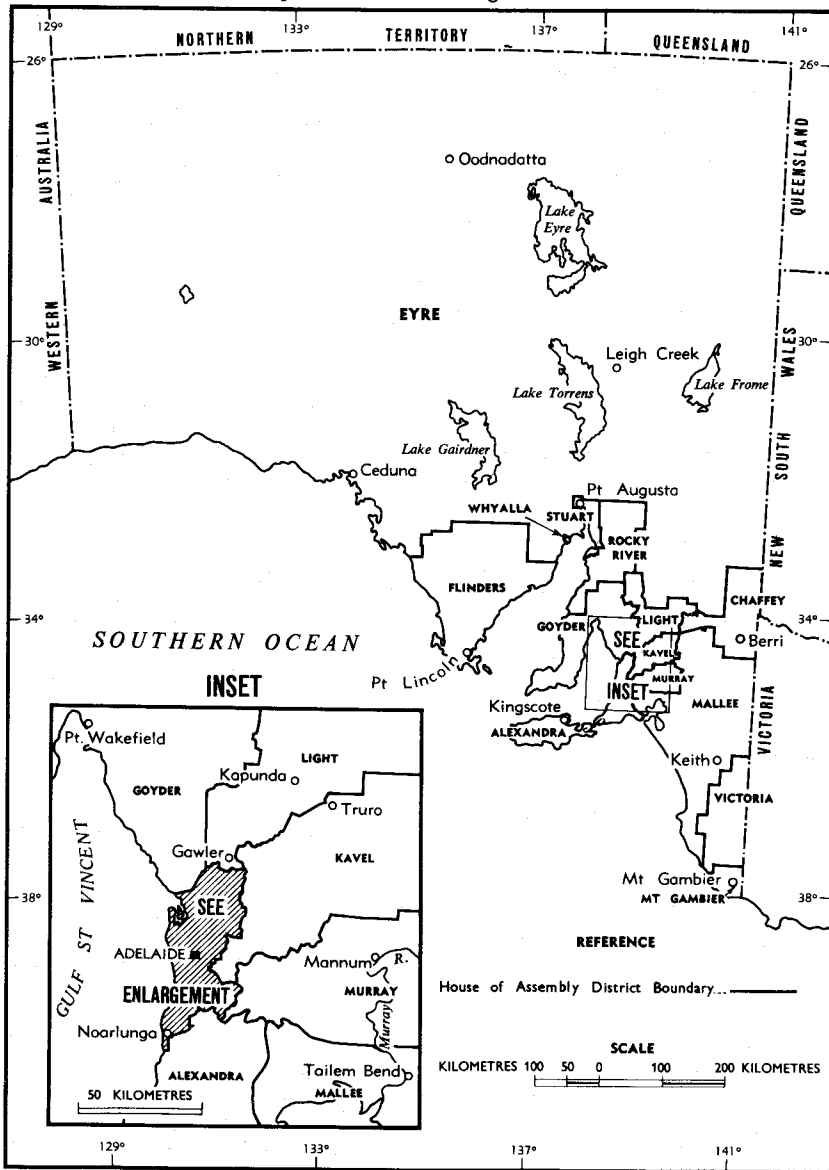
Enrolment for the House of Assembly is not compulsory but in practice, as a consequence of the operation of the Commonwealth and House of Assembly Joint Electoral Rolls, most persons enrolling for the Commonwealth Electoral Roll are also enrolled for the House of Assembly.

**Membership**

Subject to the exclusions mentioned on page 67 election to the House of Assembly is open to those eligible to vote in an election for the House. Members of this House are elected for a maximum of three years, for single-member districts. The seat of a member becomes vacant through his death, resignation or disqualification and, usually, is filled at a by-election.

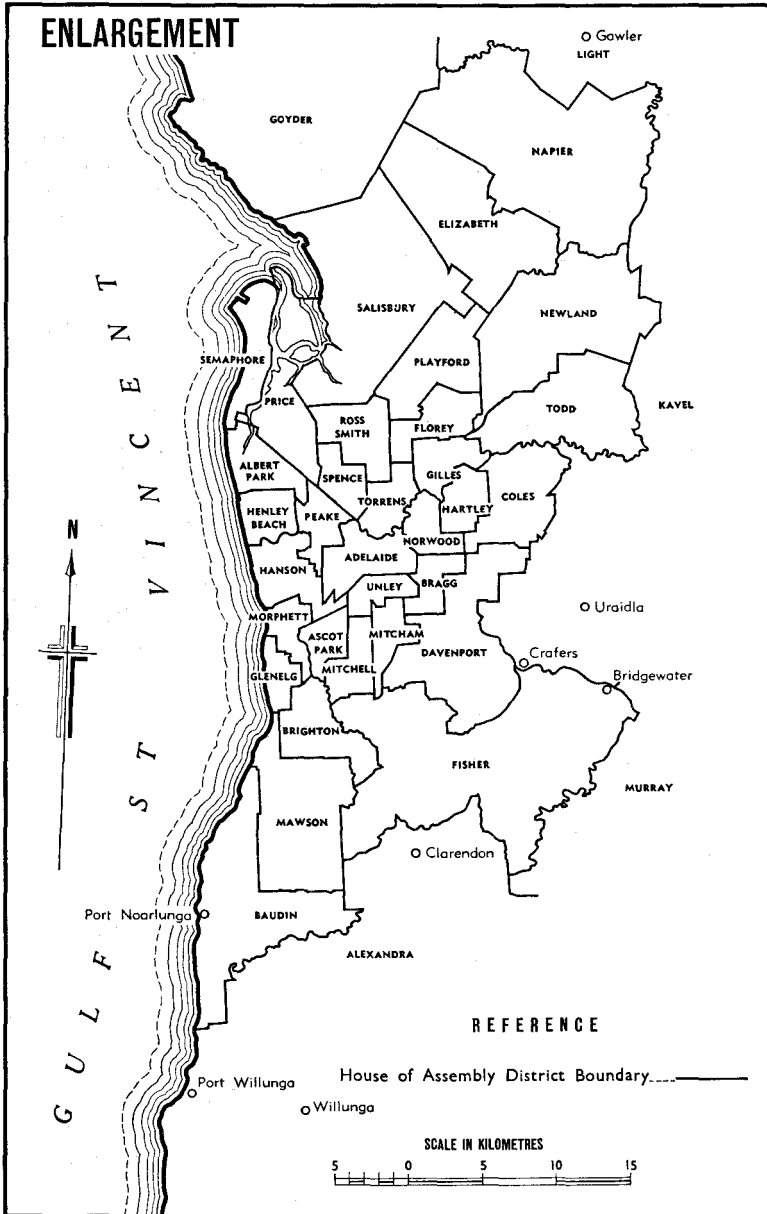
# SOUTH AUSTRALIA SOUTH AUSTRALIAN ELECTORAL DISTRICTS

Operative from 23 August 1977



# PORTION OF SOUTH AUSTRALIA SOUTH AUSTRALIAN ELECTORAL DISTRICTS

Operative from 23 August 1977



### Electoralates and Electoral Distribution

The present allocation of thirty-three metropolitan and fourteen country electoralates for the House of Assembly became operative from 23 August 1977 and was determined by the Electoral Districts Boundaries Commission. Before this date there were twenty-eight metropolitan and nineteen country House of Assembly electoral districts. The first election incorporating the present boundaries was held on 17 September 1977.

The Commission, constituted by the Constitution Act Amendment Act (No. 5), 1975, differs from previous commissions for redistribution of electoral boundaries in that each of those commissions was created by the Parliament to make a single report and recommendation to the Parliament. The boundaries so recommended did not become effective unless the recommendation was approved by the Parliament. However, the present Commission has perpetual succession and a common seal as a corporate entity. The reports made by the Commission do not require validating legislation and become operative three months after publication of the Commission's Order.

Under the Act any elector may, within one month of the Commission's Order, appeal to the Full Court of the Supreme Court.

### Officers and their Functions

A Speaker presides over the House, and his election is the first business when a Parliament first meets. He presides over debate, maintains order, represents the House officially, communicates its wishes and resolutions, defends its privileges when necessary, and applies its procedure. The Speaker may exercise a casting vote only. There is also a Chairman of Committees elected by the House at the beginning of each Parliament; he presides over the deliberations of the House in Committee and acts as Deputy Speaker when required.

Other officers of the Parliament include the Leader and Deputy Leader of the Opposition in either House and the various party whips whose function is to ensure that their party members are present in the House for divisions and other important business.

### ELECTIONS AND PARTY REPRESENTATION

The following table gives details of the numbers of electors on the Electoral Rolls and voting in contested electoralates for all general elections from 1947 to 1977.

#### South Australian Parliament: Voting at Elections, 1947 to 1977

Date	Legislative Council			House of Assembly		
	Contested Electoralates			Contested Electoralates		
	Electors Enrolled	Electors Voting	Per Cent	Electors Enrolled	Electors Voting	Per Cent
8 March 1947	155 847	124 826	80-10	306 059	285 765	93-37
4 March 1950	68 347	52 954	77-48	311 658	290 306	93-15
7 March 1953	97 968	79 373	81-02	354 273	336 529	95-01
3 March 1956	22 963	16 002	69-69	299 048	280 811	93-90
7 March 1959	86 278	70 007	81-14	426 340	400 531	93-95
3 March 1962	118 218	98 786	83-56	444 197	417 462	93-98
6 March 1965	186 899	149 910	80-21	542 436	513 064	94-59
2 March 1968	275 701	262 328	95-15	609 626	575 948	94-48
30 May 1970				635 533	605 952	95-03
10 March 1973	383 758	357 971	93-28	696 290	655 937	94-20
12 July 1975	771 414	719 753	93-30	771 414	721 770	93-56
17 September 1977				818 335	764 072	93-37



The following table shows the Party representation in both Houses of the South Australian Parliament resulting from each general election from 1947.

**South Australian Parliament: Party Representation at Elections, 1947 to 1977**

Date	Legislative Council			House of Assembly		
	ALP	LP	Other	ALP	LP	Other
8 March 1947	4	16	—	13	23	3
4 March 1950	4	16	—	12	23	4
7 March 1953	4	16	—	14	21	4
3 March 1956	4	16	—	15	21	3
7 March 1959	4	16	—	17	20	2
3 March 1962	4	16	—	19	18	2
6 March 1965	4	16	—	21	17	1
2 March 1968	4	16	—	19	19	1
30 May 1970	4	16	—	27	20	—
10 March 1973	6	13	1	26	18	3
12 July 1975	10	9	2	23	20	4
17 September 1977	10	11	—	27	18	(a)2

(a) 1 Australian Democrats, 1 National Country Party.

ALP Australian Labor Party LP Liberal Party of Australia

At the general election held on 17 September 1977 there were forty-seven electorates represented in the House of Assembly, thirty-three metropolitan and fourteen country. The table below shows the electoral returns for that general election.

**House of Assembly: Party Representation, 1977**

Electorate	Electors on Roll	Electors Voting	Successful Candidate		
			Name	Party	First Preference Votes
<b>Metropolitan:</b>					
Adelaide	17 428	15 703	Wright, Hon. J. D.	ALP	9 996
Albert Park	17 446	16 510	Harrison, C. A.	ALP	10 188
Ascot Park	17 041	16 069	Virgo, Hon. G. T.	ALP	9 331
Baudin	19 108	17 898	Hopgood, Hon. D. J.	ALP	11 463
Bragg	17 366	15 904	Tonkin, D. O.	LP	10 134
Brighton	18 169	17 213	Hudson, Hon. H. R.	ALP	8 911
Coles	17 710	16 726	Adamson, Mrs J. L.	LP	8 355
Davenport	17 432	16 194	Brown, D. C.	LP	10 311
Elizabeth	17 513	16 179	Duncan, Hon. P.	ALP	11 082
Fisher	18 908	17 696	Evans, S. G.	LP	10 429
Florey	17 930	16 722	Wells, C. J.	ALP	10 824
Gilles	17 545	16 435	Slater, J. W.	ALP	9 339
Glenelg	17 470	16 218	Mathwin, J.	LP	9 421
Hanson	17 786	16 525	Becker, H. T.	LP	8 885
Hartley	18 695	17 584	Corcoran, Hon. J. D.	ALP	9 965
Henley Beach	18 168	17 072	Broomhill, Hon. G. R.	ALP	9 780
Mawson	19 338	18 505	Drury, L.	ALP	9 428
Mitcham	17 326	16 105	Millhouse, R. R.	AD	5 146
Mitchell	17 443	16 302	Payne, Hon. R. G.	ALP	8 952

## House of Assembly: Party Representation, 1977 (continued)

Electorate	Electors on Roll	Electors Voting	Successful Candidate		
			Name	Party	First Preference Votes
<b>Metropolitan: (continued)</b>					
Morphett .....	17 486	16 301	Groom, T. R.	ALP	7 581
Napier .....	16 716	15 315	Hemmings, T. H.	ALP	10 350
Newland .....	19 045	17 936	Klunder, J. H. C.	ALP	9 437
Norwood .....	17 727	16 047	Dunstan, Hon. D. A., QC	ALP	9 361
Peake .....	17 132	15 921	Simmons, Hon. D. W., DFC	ALP	10 325
Playford .....	18 134	17 021	McRae, T. M.	ALP	10 011
Price .....	16 652	15 525	Whitten, G. T.	ALP	10 304
Ross Smith .....	16 481	15 523	Bannon, J. C.	ALP	10 773
Salisbury .....	19 753	18 402	Groth, R. W.	ALP	12 150
Semaphore .....	18 100	16 872	Olson, J. W.	ALP	11 601
Spence .....	16 412	15 281	Abbott, R. K.	ALP	11 307
Todd .....	17 711	16 816	Byrne, Mrs M. V.	ALP	9 273
Torrens .....	17 532	15 828	Wilson, M. M.	ALP	7 819
Unley .....	17 078	15 410	Langley, Hon. G. R. A.	ALP	8 848
<b>Country:</b>					
Alexandra .....	17 325	16 255	Chapman, W. E.	LP	9 822
Chaffey .....	17 528	16 368	Arnold, P. B.	LP	9 522
Eyre .....	15 615	13 865	Gunn, G. M.	LP	7 259
Flinders .....	15 734	14 983	Blacker, P. D.	NCP	7 618
Goyder .....	16 798	15 911	Russack, E. K.	LP	5 907
Kavel .....	17 361	16 381	Goldsworthy, E. R.	LP	10 260
Light .....	16 161	15 145	Eastick, B. C.	LP	8 968
Mallee .....	15 514	14 649	Nankivell, W. F.	LP	8 684
Mount Gambier .....	17 093	16 215	Allison, H.	LP	8 181
Murray .....	17 355	16 289	Wotton, D. C.	LP	5 121
Rocky River .....	16 786	16 009	Venning, H. M.	LP	6 344
Stuart .....	16 813	15 810	Keneally, G. F.	ALP	11 295
Victoria .....	15 482	14 514	Rodda, W. A.	LP	9 285
Whyalla .....	16 995	15 920	Brown, M. J.	ALP	11 203

ALP Australian Labor Party

NCP National Country Party

AD Australian Democrats

LP Liberal Party of Australia

*Speaker:* The Hon. G. R. A. Langley, MP*Chairman of Committees:* G. F. Keneally, MP*Leader of the Opposition:* D. O. Tonkin, MP*Deputy Leader of the Opposition:* E. R. Goldsworthy, MP*Government Whip:* The Hon. G. R. Broomhill, MP*Opposition Whip:* S. G. Evans, MP*Clerk of the House of Assembly:* A. F. R. Dodd

The members of the Legislative Council after the general election of 12 July 1975 were as follows:

Banfield, Hon. D. H. L. (ALP)	DeGaris, Hon. R. C. (LP)
Blevins, Hon. F. T. (ALP)	Dunford, Hon. J. E. (ALP)
Burdett, Hon. J. C. (LP)	Foster, Hon. N. K. (ALP)
Cameron, Hon. M. B. (LM)	Geddes, Hon. R. A. (LP)
Carnie, Hon. J. A. (LM)	Griffin, Hon. K. T. (LP) <sup>(a)</sup>
Casey, Hon. T. M. (ALP)	Hill, Hon. C. M. (LP)
Chatterton, Hon. B. A. (ALP)	Laidlaw, Hon. D. H. (LP)
Cooper, Hon. J. M. (ALP)	Levy, Hon. J. A. W. (ALP)
Cornwall, Hon. J. R. (ALP)	Sumner, Hon. C. J. (ALP)
Creedon, Hon. C. W. (ALP)	Whyte, Hon. A. M. (LP)
Dawkins, Hon. M. B. (LP)	

(a) Appointed 28 February 1978 on death of the Hon. F. J. Potter.

*President and Chairman of Committees:* Hon. A. M. Whyte, MLC

*Leader of the Opposition:* Hon. R. C. DeGaris, MLC

*Clerk of the Legislative Council:* A. D. Drummond

### **Court of Disputed Returns**

In South Australia, provision is made in the Electoral Act, 1929-1976, for the constitution of a Court of Disputed Returns which has jurisdiction to hear and determine all questions of disputed returns affecting either House of the State Parliament which are referred to it by the House concerned. No return on an election writ may be disputed, except by a petition to this Court. A subsidiary function of the Court is to hear petitions for exoneration from liability for failure to file certain electoral returns or vouchers under Part XIV of the Electoral Act.

The Court is constituted by the senior puisne Judge of the Supreme Court, or where he is not available by the puisne Judge next in order of seniority who is available.

The Court sits as an open court, usually at Parliament House Adelaide, and has power, *inter alia*:

- (a) to compel the attendance of witnesses and the production of documents;
- (b) to examine witnesses upon oath;
- (c) subject to any Supreme Court rules, to regulate the form and mode of its own proceedings;
- (d) to declare that any person who was returned as elected was not duly elected;
- (e) to declare any candidate duly elected who was not returned as elected;
- (f) to declare any election void;
- (g) to dismiss or uphold any petition in whole or in part;
- (h) to award any costs; and
- (i) to punish any contempt of its authority.

Most cases have related to House of Assembly elections. Since 1857, the Court of Disputed Returns has considered twenty-one petitions referred to it by the House of

Assembly concerning the election of twenty-six members of that House. The Court's decisions in these cases are summarised hereunder:

Election voided and member unseated .....	15
Member unseated but other candidate declared to be duly elected .....	2
Petitions unsuccessful .....	2
Petitions dismissed .....	6
Petition withdrawn .....	1

#### REFERENDA

Since the inception of responsible government in South Australia in 1856 seven referenda have been held—the first in 1896 and subsequent ones in 1898, 1899, 1911, 1915, 1965 and 1970—and ten proposals have been submitted.

Three proposals related to education (1896) of which only one was approved; three were constitutional (1898 and 1899)—all approved; one related to Parliamentary salaries (1911)—not approved; one related to bar-room closing hours (1915)—favoured 6 p.m. closing; one related to the establishment of a lottery (1965)—approved; and one related to extended shopping hours in the metropolitan area (1970)—not approved.

The last referendum, held on 19 September 1970, asked House of Assembly electors in the Adelaide Metropolitan Planning Area and the Municipality of Gawler 'Are you in favour of shops in the Metropolitan Planning Area and the Municipality of Gawler being permitted to remain open for trading until 9 p.m. on Fridays?' Of the 463 629 electors qualified to vote 177 296 voted 'Yes' and 190 826 voted 'No'.

#### ADMINISTRATION

The South Australian Public Service consists of thirty-two departments. In the following list, the departments have been grouped according to Ministerial control.

##### PREMIER, TREASURER AND MINISTER OF IMMIGRATION AND ETHNIC AFFAIRS

Hon. Donald Allan Dunstan, QC, MP	
Premier's Department	Department of the Public Service
Treasury Department	Board
Department of Economic Development	Art Gallery Department

##### DEPUTY PREMIER, MINISTER OF WORKS, MINISTER FOR THE ENVIRONMENT AND MINISTER OF MARINE

Hon. James Desmond Corcoran, MP	
Engineering and Water Supply Department	Public Buildings Department
Department for the Environment	Department of Marine and Harbors

##### MINISTER OF MINES AND ENERGY AND MINISTER FOR PLANNING

Hon. Hugh Richard Hudson, MP	
Mines Department	Department of Housing, Urban and Regional Affairs

##### MINISTER OF HEALTH AND MINISTER ASSISTING THE DEPUTY PREMIER

Hon. Donald Hubert Louis Banfield, MLC	
Hospitals Department	

MINISTER OF TRANSPORT AND MINISTER OF LOCAL GOVERNMENT

Hon. Geoffrey Thomas Virgo, MP

Department of Transport

Highways Department

MINISTER OF LANDS, MINISTER OF IRRIGATION, MINISTER OF  
REPATRIATION AND MINISTER OF TOURISM, RECREATION AND  
SPORT

Hon. Thomas Mannix Casey, MLC

Department of Lands

Department of Tourism, Recreation  
and Sport

MINISTER OF EDUCATION

Hon. Donald Jack Hoggood, MP

Education Department

Libraries Department

Department of Further Education

MINISTER OF AGRICULTURE, MINISTER OF FORESTS AND MINISTER OF  
FISHERIES

Hon. Brian Alfred Chatterton, MLC

Woods and Forests Department

Department of Agriculture and  
Fisheries

MINISTER OF LABOUR AND INDUSTRY AND MINISTER ASSISTING THE  
PREMIER IN INDUSTRIAL DEMOCRACY

Hon. John David Wright, MP

Department of Labour and Industry

MINISTER OF COMMUNITY WELFARE

Hon. Ronald George Payne, MP

Department for Community Welfare

ATTORNEY-GENERAL AND MINISTER OF PRICES AND CONSUMER  
AFFAIRS

Hon. Peter Duncan, MP

Law Department

Supreme Court Department

Electoral Department

Department of Public and Consumer

Department for Corporate Affairs

Affairs

CHIEF SECRETARY AND MINISTER ASSISTING THE PREMIER

Hon. Donald William Simmons, DFC, MP

Police Department

Department of Services and Supply

Department of Correctional Services

Auditor-General's Department

SUPREME COURT JUDGES

Judges of the Supreme Court are appointed by commission of the Governor on the advice of the Executive Council. A person may not be appointed a judge of the Supreme Court unless he is a legal practitioner of ten years standing. Judges of the Supreme Court at 1 July 1978 were:

Hon. John Jefferson Bray (Chief Justice)	Hon. William Andrew Noye Wells
Hon. David Stirling Hogarth	Hon. Alexander Keith Sangster
Hon. Charles Hart Bright	Hon. Samuel Joshua Jacobs
Hon. Roma Flinders Mitchell, CBE	Hon. Leonard James King
Hon. George Henry Walters	Hon. James Michael White
Hon. Howard Edgar Zelling, CBE	

### THE OMBUDSMAN

The office of the Ombudsman is established under the Ombudsman Act, 1972-1974. The Ombudsman is empowered to investigate complaints from members of the public concerning the administrative acts of State Government departments, State statutory authorities and local government councils.

The jurisdiction of the Ombudsman does not extend to Commonwealth Government departments or authorities, judicial decisions, police actions, or actions by private individuals or companies.

A complaint to the Ombudsman is usually made by the person or enterprise directly affected by an administrative act, although, if the complainant is unable, a Member of the South Australian Parliament or some other person may act on his behalf. Complaints may be by telephone or personal visit, but it is preferable for a complaint to be in writing giving full details including copies of any correspondence with the authority concerned.

The Ombudsman has the powers of a royal commission but conducts his investigations in private. Complainants are informed of the final result of any inquiry and where appropriate progress reports are given while an investigation is proceeding. The Ombudsman service is provided free-of-charge.

During 1976-77, 1017 complaints were registered and of those fully investigated, approximately 27 per cent were found to be justified fully or in part.

### LEGISLATION

During 1977, 56 Public Acts were passed by the South Australian Parliament. Details of some of the more important legislation passed during this period are given below.

Crown Proceedings Act Amendment Act, 1977 (No. 4) amended the Crown Proceedings Act, 1972-1975 to empower the Attorney-General to intervene in any proceedings in which the interpretation or validity of a law of the State or Commonwealth is in question or in which the legislative executive or judicial powers of the State or Commonwealth are in question.

Firearms Act, 1977 (No. 26). An Act to control the possession and sale of firearms and to repeal the Firearms Act, 1958-1975 and the Pistol Licence Act, 1929-1975.

Industries Development Act Amendment Act, 1977 (No. 15) amended the Industries Development Act, 1941-1975 to enable the State Government to provide additional capital on favourable terms for specific industrial enterprises and to enable employees engaged in those enterprises to acquire a financial and managerial interest therein.

Legal Services Commission Act, 1977 (No. 25). An Act to establish the Legal Services Commission which will be responsible for the provision of all legal assistance in South Australia.

Mental Health Act, 1977 (No. 24). An Act to provide for the treatment and protection of persons who are mentally ill; to make provision for the care, treatment and protection of persons who are mentally handicapped and to repeal the Mental Health Act, 1935-1974.

- Motor Fuel Rationing (Temporary Provisions) Act, 1977 (No. 30). An Act to provide for the distribution of motor fuel during any period of limitation of supplies of motor fuel.
- Narcotic and Psychotropic Drugs Act Amendment Act, 1977 (No. 20) amended the Narcotic and Psychotropic Drugs Act, 1934-1976 to provide that, in relation to the Royal Commission into the Non-medical Use of Drugs, where a witness gives evidence or makes submissions that tend to incriminate him of offences against the Act, no prosecution shall be launched in respect of the offences so disclosed except under the authorisation of the Attorney-General.
- Noise Control Act, 1977 (No. 14). An Act to reduce the level of noise in the community and minimise the risk of noise-induced hearing loss.
- Pipelines Authority Act Amendment Act, 1977 (No. 16) amended the Pipelines Authority Act, 1967-1974 to confer on the Pipelines Authority of South Australia additional powers to facilitate its entry into all aspects of petroleum exploration and exploitation.
- Shop Trading Hours Act, 1977 (No. 35). An Act to provide for and regulate the closing times for shops to enable them to open until 9 p.m. on Thursday, except in the square mile of the City of Adelaide where Friday will be the late shopping night.
- State Clothing Corporation Act, 1977 (No. 54). An Act to establish the State Clothing Corporation, the functions of which are to manufacture, supply and deliver clothing, linen and other textile goods required by Government departments or agencies.
- State Government Insurance Commission Act Amendment Act, 1977 (No. 18) amended the State Government Insurance Commission Act, 1970-1974 to facilitate the entry by the Commission into the field of life insurance.
- Uniting Church in Australia Act, 1977 (No. 8). An Act to facilitate the union of the Congregational, Methodist and Presbyterian Churches and the formation by that union of a single church to be known as the Uniting Church in Australia.
- Workmen's Compensation (Special Provisions) Act, 1977 (No. 19). An Act to exclude from the definition of 'workman' in subsection (1) of section 8 of the Workmen's Compensation Act, 1971-1974 certain persons who are contestants in sporting or athletic activities.

### OVERSEAS REPRESENTATION

South Australia is represented in London by the Agent-General for South Australia, at South Australia House, 50 Strand, London. As official representative of the State, it is the function of the Agent-General to work in close co-operation with the High Commissioner for Australia, to keep the State Government informed of political and economic developments overseas, to promote industrial development and investment in South Australia, to encourage immigration to the State and to foster trade with the United Kingdom and other countries. The present Agent-General and Trade Commissioner is Mr W. M. Scriven.

### INTERSTATE REPRESENTATION

The South Australian Tourist Bureau maintains offices at 402 George Street, Sydney, NSW, and at 8 Royal Arcade, Melbourne, Victoria, to foster and facilitate tourist travel to South Australia.

### CONSULAR REPRESENTATIVES

There are 22 countries represented in South Australia by consuls, vice-consuls, consular-agents or consul-generals.

- Austria*: John A. Nelson, Consul-General  
*Belgium*: Robert E. Porter, Consul <sup>(a)</sup>  
*Britain*: William S. Ashford, OBE, Consul-General <sup>(b)</sup>  
 James E. Pepper, Vice-Consul (Commercial) <sup>(b)</sup>  
*Denmark*: Trevor R. Taylor, Consul  
*Dominican Republic*: Peter H. D. Lathlean, Consul  
*Finland*: Colin C. Verco, OBE, Consul  
*France*: Dr Rex J. Lipman, Consul  
*Germany*: Bruce R. Macklin, OBE, Consul  
*Greece*: Athanasias A. Camilos, Consul-General <sup>(b)</sup>  
*Italy*: Dr Rubens A. Fedele, Vice-Consul <sup>(b)</sup>  
*Japan*: J. Langdon Parsons, Consul-General  
*Lebanon*: Archie M. Hambour, Consul  
*Liberia*: William B. Coombs, Consul  
*Mexico*: Robert W. Clampett, Consul  
*Netherlands*: Vacant  
*Norway*: John N. Howe, Consul  
*Peru*: Max J. Hill, Consul  
*Philippines*: J. Rolfe Sabine, Consul  
*Portugal*: Raymond F. Walters, Consul <sup>(c)</sup>  
*Sweden*: Mrs June Tanner, Consul  
*Switzerland*: Paul A. Richter, Vice-Consul  
*United States of America*: William J. McGovern, Consular-Agent

(a) Dean of the Consular Corps.

(b) *Consul de Carriere*.

(c) Secretary, Consular Corps.

### STATE EMBLEMS

A description of the South Australian Coat-of-Arms, the State Badge, the State Flag and the Floral Emblem together with coloured illustrations was included on pages 94-5 of the *South Australian Year Book* 1970.

On 27 September 1970, the hairy-nosed wombat (*Lasiorhinus latifrons*) was adopted as South Australia's official Faunal Emblem.

## 3.4 PUBLIC CORPORATIONS

A public corporation is defined, for statistical purposes, as a body (other than a local government authority or body whose receipts and payments are included in the public accounts of the Commonwealth, a State, or a Territory) created by or under legislation to carry out an activity or activities on behalf of a Government, or a body in which a Government has a controlling interest.



Some authorities, such as marketing boards which are set up by Acts of Parliament are not regarded as public corporations because their activities are carried out on behalf of industries rather than on behalf of any Government.

Most public corporations have independent powers for the recruitment of staff. All possess greater administrative and financial autonomy than government departments but there is a wide variation in the degree of autonomy accorded, in various aspects, to different authorities.

Activities carried out by public corporations include tertiary education, hospital services, power supply, public transport, banking services, fire control, irrigation and drainage in rural areas, control and regulation of milk supply, slaughtering of animals for human consumption, housing development, off-course totalisators and lotteries, and investigation of problems relating to the development of mineral resources.

In appropriate parts of this Year Book reference is made to the activities of most of the public corporations which operate in South Australia.

## 3.5 LOCAL GOVERNMENT

### LOCAL GOVERNMENT AUTHORITIES

#### Local Government Areas: Number, Size and Status

At 1 January 1978 there were 130 local government areas in South Australia including the site of Monarto which was constituted as a municipality under the Monarto Development Commission Act, 1973 with the Commission as the corporation and council of the municipality. Each local government area, with the exception of Monarto, is controlled by a council consisting of members elected by local ratepayers and exercising powers under the Local Government Act, 1934-1978.

The total area incorporated in local government areas at 1 January 1978 was 151 524 square kilometres; this is only slightly above 15 per cent of the total area of the State but contains almost 99 per cent of the State population.

There are two major types of local government areas—district council areas and municipalities. Usually district council areas consist predominantly of rural land and contain one or more towns. Generally, to qualify for proclamation as a municipality an area must be used predominantly for either residential, business, industrial, or manufacturing purposes (or a combination of these purposes), and be able to support itself financially. Some municipalities are constituted as cities, the qualification being 15 000 inhabitants for metropolitan municipalities (the twenty-one local government areas which form the metropolitan area as defined under the Local Government Act and which, before June 1966, corresponded to the statistical Urban Adelaide) and 10 000 persons in other areas.

Of the 130 local government areas at 1 January 1978, 37 were municipalities (including 25 cities) and 93 were district council areas.

The Governor may create, abolish, or vary the size, status, or organisation of, any local government area or portion thereof, provided certain requirements are satisfied. Such alterations usually stem from petitions by electors or a council.

As a result of legislation passed in 1969 district councils may apply to the Governor for mayoral status; in previous years only municipal councils had mayors. Since the legislation fifteen district councils, Berri, Clare, Gumeracha, Kadina, Kanyaka-Quorn, Kapunda, Kingscote, Loxton, Meadows, Millicent, Murray Bridge, Penola, Strathalbyn, Victor Harbor and Waikerie have been granted mayoral status.

### **Functions of Local Government**

The Local Government Act, 1934-1978 prescribes most of the 'powers and authorities' which each council shall or may exercise 'for the good government' and 'the management of the affairs' of its area, but some functions devolve from other Acts. To enable it to sue and be sued and to participate in transactions involving the purchase and sale of land and other property each council is constituted as a corporate body.

The functions performed by councils vary somewhat with the area concerned, but there are general functions which are common to them all. Many of these functions receive more detailed attention in the parts of this book dealing with the appropriate subjects, e.g. road construction and maintenance in Part 8.3, Roads; health services and Local Boards of Health in Part 6.5, Health; and libraries in Part 6.4, Culture and Recreation. Among the many other functions of local government authorities are the provision of street lighting, the licensing and inspection of slaughterhouses, the maintenance of cemeteries, the maintenance of foreshores and jetties, the control of the location of industries (especially noisy trades), the prevention of fires within certain areas, and the policing of provisions relating to vermin and weeds. Councils also employ social workers and carry out functions in relation to social welfare.

### **Organisation and Representation**

Whereas a municipality must be divided into at least two areas known as wards, a district council need not have wards; however, only four district councils have undivided areas. No council may comprise less than five members, and each ward in a municipality must be represented by two councillors. No district council area may be divided into more than ten wards, and the number of councillors for each ward is established by proclamation.

A candidate for election as a councillor must be an adult British subject being an elector for the area for which he seeks election. Special magistrates, undischarged bankrupts, persons holding contract or employment under the council, persons under sentence for crimes, persons overdue with council rates and any associated fines, and persons of unsound mind are ineligible for election.

Each year half the number of councillors retire. In councils with wards one councillor from each ward, the one who has been 'the longest in office without re-election', retires; in other councils the councillors who did not retire one year do so the next. In all cases a retiring councillor is eligible for re-election.

Any municipality may apply to add no less than three and no more than six aldermen to its council. The qualifications for councillors apply to aldermen, except that aldermen are not bound by the limits of wards, and an alderman must have served at least one year as a member of the council. Although the functions of aldermen are not specifically defined the concept is that they should impartially consider the interests of the area as a whole and so resolve any conflict which may arise between sectional interests represented by councillors.

Mayors of municipalities and of certain district councils are elected annually on the same basis as aldermen. The chairman of a district council is chosen annually by councillors from among their number.

### **Allowances**

Council members, other than mayor or chairman, are not paid salaries or allowances, but may be reimbursed any expenses incurred in the performance of council business, and in the case of district councils, may be reimbursed the cost of travelling to and from council meetings.

The mayor or chairman receives an annual allowance which is determined at a council meeting in July of each year. This allowance, payable in advance, is to compensate for any expenses he is likely to incur in the execution of his official duty in the current financial year.

### **Franchise**

Under the provisions of the Local Government Act, 1934-1978 universal adult franchise applied in local government elections and polls from 2 July 1977. A person is entitled to enrol as an elector if he is enrolled as an elector for the House of Assembly in respect of an address within the area, or if he is a ratepayer in respect of ratable property within the area. A body corporate is enrolled under the name of a nominated agent. The Electoral Commissioner supplies local government authorities with current lists of electors drawn from the State electoral roll.

### **Officers and their Functions**

Each council may appoint any officers it considers necessary to carry out its duties, including constables to facilitate the maintenance of law and order within its area. Each council must appoint a town clerk (in a municipality) or a district clerk (in a district council) as the chief executive officer, and an auditor.

Employment in local government administration is now regarded as a career; most town and district clerks are full-time employees, and councils are required to employ in those positions only those persons who have passed examinations qualifying them for the work. The characteristics of particular areas determine to some extent the nature of the duties performed by town and district clerks; they often undertake a very wide variety of functions, especially in smaller areas, where even the part-time employment of specialist officers for particular tasks is not warranted. Continuity of service between councils for long service leave and other purposes is provided for in the Local Government Act. The Minister of Local Government sets a minimum standard of superannuation benefits which must be made available to council employees. Other officers employed in local government are required to hold appropriate qualifications; these include engineers, overseers, building surveyors and inspectors, health surveyors and authorised weed officers.

The auditor for each council is appointed for a term of two years. He is not eligible for appointment unless he holds a Local Government Auditor's Certificate of competence issued by the Local Government Auditors Examining Committee.

Whenever a council itself undertakes a new assessment of property values within its area it is required under the Local Government Act to appoint a valuer who recommends to the council a valuation of each property for rating purposes. A ratepayer may appeal against a council's valuation of his own property or that of another ratepayer. Instead of undertaking its own assessment of property values it is now not uncommon for a council to adopt the valuations of the Valuer-General. When this is done a council avoids the necessity of employing a valuer but a fee for each valuation is payable to the Valuer-General. There is no right of appeal to the council against valuations so based; in respect of the Government unimproved valuation the right of appeal lies against the Valuer-General when the valuation is made.

### **Finance**

Local government authorities derive their revenue from many different sources, including sundry licences and fines, but the principal sources are rates, loans raised against the security of future rates, and government grants. The relative importance of these sources of revenue varies between areas and through time within areas, e.g. in closely settled well-developed areas rate revenue is usually predominant; in large sparsely settled

areas government grants, mainly for road-works, may at times be the chief item of revenue; in areas being rapidly and extensively developed for housing or industrial purposes both government grants and loan funds may be prominent.

Specific purpose Commonwealth Government grants, generally, are not made direct to local government authorities but are administered by appropriate State Government departments. The most important example of this is the distribution of portion of Commonwealth Aid Roads Grant to local government authorities by the Highways Department in conjunction with the State Treasury.

The Commonwealth Government makes available to the States for sharing by local government authorities an agreed percentage of income tax collected by the Commonwealth. The basis on which the States make the funds available to local government authorities must be agreed to by the Commonwealth Government and must include an approved distribution on a *per capita* basis with the balance distributed on an equalisation basis. South Australia is making 30 per cent of the State amount available to local government authorities on a *per capita* basis.

A large proportion of local government expenditure from both loan funds and other revenue is for the construction and maintenance of roads, footpaths, and stormwater drains. Further information is contained in Part 11.5, Local Government Finance.

#### **South Australian Local Government Grants Commission**

The South Australian Local Government Grants Commission was established in 1976 under the provisions of the South Australian Local Government Grants Commission Act, 1976.

The Commission's main function is to recommend to the Minister the councils to which grants should be made and the amount of such grants. It has, for the purpose of its inquiries, the powers of a commission appointed under the Royal Commissions Act, 1917.

The Commission is required to ensure that all funds provided are distributed each year and that as far as possible, any grant to a council will be sufficient to enable the council to function at a standard not appreciably below similar councils. The grants recommended by the Commission are required to be free from any direction as to specific use.

The recommendations of the Commission must be forwarded to the Minister who may refer them back requesting further consideration. The Commission is required to reconsider its recommendation in the light of the request and following this the Minister, even though no amendments are made to original recommendations, must approve of those recommendations.

#### **Royal Commission into Local Government Areas**

A royal commission appointed in 1973 to inquire into local government boundaries recommended that seventy-four new councils be created to replace the, then existing, 137 bodies. After considering the recommended changes, the South Australian Parliament decided against a compulsory imposition of the proposed alterations.

#### **Local Government Advisory Commission**

The Local Government Advisory Commission was established by Act of Parliament in 1976. The Commission comprises a Chairman who must be a person holding judicial office, one member being the person holding or acting in the position of Secretary for Local Government and another member appointed by the Governor.

The Commission is required to investigate and make recommendations on voluntary amalgamations of councils submitted to it and to advise the Minister on any matter relating to any petition or counter petitions referred to it for investigation.

The Commission has the powers of a royal commission.

## 3.6 TOWN AND REGIONAL PLANNING

### Legislation

In 1920 the South Australian Parliament passed the Town Planning and Development Act which followed the Control of Subdivision of Land Act of 1917. These Acts were the first of their kind in Australia. The Act of 1920 made provision for the preparation of town planning schemes and by-laws, for the appointment of a Government Town Planner and a Town Planning Department. The Department prepared plans for various areas, including Colonel Light Gardens and the townships of Iron Knob and Barmera. The Acts of 1917 and 1920 were repealed by the Town Planning Act, 1929 which dealt only with the control of land subdivision.

The Town Planning Act, 1929 was amended in 1955 to provide for a Town Planning Committee which was required to prepare a plan to guide the future development of the metropolitan area of Adelaide. The Committee considered the probable future population of the metropolitan area, the provision of public transport, adequacy of highways, provision of open spaces such as parks and sports grounds, the zoning of industrial districts and the subdivision of land in relation to the economic provision of sewerage, water supply, electricity and gas services.

The Metropolitan Development Plan, together with its accompanying Report on the Metropolitan Area of Adelaide, was laid before both Houses of Parliament in October 1962, and an amendment to the Town Planning Act followed in 1963. The amendment required the Committee to call for and consider objections to the Plan as submitted to Parliament and the Committee was authorised to make regulations to implement the Plan.

The Planning and Development Act, which came into operation in 1967, repealed the Town Planning Act. It established an eleven-member State Planning Authority (with the Director of Planning as Chairman) and an independent Planning Appeal Board of four members. Provisions were made for the Planning Authority to implement and review the 1962 Development Plan, to prepare similar plans for other parts of the State and in conjunction with local government authorities to determine broad policies to guide the growth of towns and cities throughout the State.

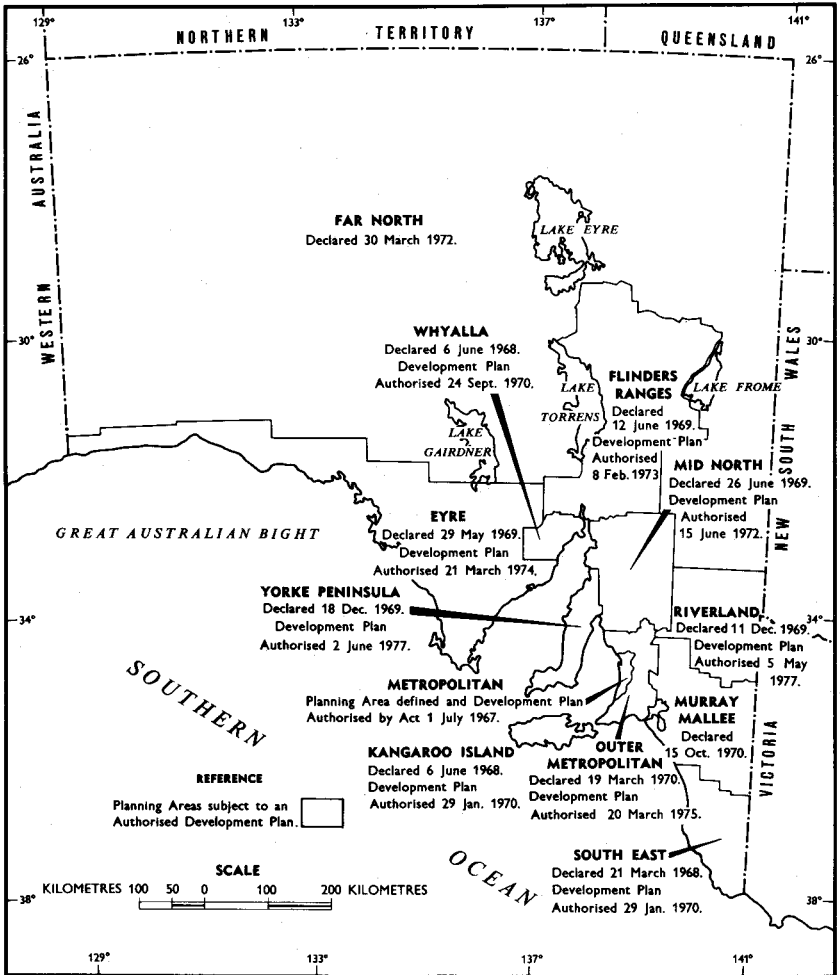
The Planning and Development Act Amendment Act, 1971 reconstituted the State Planning Authority to include a wider representation of experts in the fields of local government, conservation and aesthetics. Further amendments in 1972, 1973, 1975, and 1976 provided for the appointment of permanent commissioners to the Planning Appeal Board, enabled the State Planning Authority to acquire and develop land within the Port Adelaide District Business Zone and prohibited subdivision of land within the Hills Face Zone.

Development in the City of Adelaide is now controlled under the City of Adelaide Development Control Act, 1976. Authorities under the Act are the Corporation of the City of Adelaide, the City of Adelaide Planning Commission and the City of Adelaide Planning Appeals Tribunal.

### Development Plans

Twelve planning areas have been declared covering the whole of the State. Development plans have been authorised for ten of these areas, namely, Metropolitan (1 July 1967), South East (29 January 1970), Kangaroo Island (29 January 1970), Whyalla (24 September 1970), Mid North (15 June 1972), Flinders Ranges (8 February 1973), Eyre (21 March 1974), Outer Metropolitan (20 March 1975), Riverland (5 May 1977) and Yorke Peninsula (2 June 1977). Work on preparing development plans for the remaining two areas of the State is progressing. In some parts of the State, such as in the Metropolitan

SOUTH AUSTRALIA  
PLANNING AREAS



area and Whyalla, the planning emphasis is on controlled development, whereas in the Flinders Ranges and Kangaroo Island, conservation of the natural resources and beauty of the area is being stressed.

The process of preparing a development plan involves a considerable amount of public participation. Local councils, government departments and interested groups and individuals are consulted during the preparation of the plan, and the general public is given the opportunity to comment on it during a two month public exhibition period.

Following the receipt of any representations, the State Planning Authority submits the development plan to the Minister in its original or amended form. The Minister in turn forwards the plan to the Governor with his recommendation for action.

The Governor may decide to authorise the plan, reject it, amend it, on the basis of the representations received or send it back to the Authority for further consideration. Although rather a lengthy process, it does mean that the public has an opportunity to participate in the future development and conservation of the State.

Where existing development plans need to be updated or revised, a similar process is put in motion for the preparation of a supplementary development plan. In Metropolitan Adelaide supplementary development plans have been prepared and authorised for the alignment of a number of major transportation routes (authorised 4 November 1971), the re-development of 5.5 hectares of land at Hackney (14 December 1972), the control of coastal development in the District Council of Willunga (12 July 1973), the Mount Lofty Ranges (26 February 1976), Black Hill (4 November 1976) and Port Adelaide Centre (8 September 1977). Supplementary development plans have also been prepared for Naracoorte (authorised 11 September 1975) and Whyalla (authorised 5 October 1972).

### Development Control

Control of development in accordance with a development plan is by regulation and the State Planning Authority or the appropriate local government body can recommend to the Minister that regulations be made. Such regulations may, for example, deal with land use zoning or reservation of land for acquisition for a particular purpose. The regulations must be exhibited publicly and opportunity given for objections to be lodged before submission to the Minister. Any person aggrieved by a decision given under a regulation may appeal to the Planning Appeal Board with a subsequent right of appeal to the Land and Valuation Court.

Most local councils in Metropolitan Adelaide have gazetted zoning regulations to control development within their areas. A number of councils in country areas have also taken steps to introduce zoning regulations. Many local authorities operate interim development control powers delegated to them by the State Planning Authority.

The State Planning Authority directly controls development in the Hills Face Zone, comprising the high land overlooking metropolitan Adelaide between Gawler and Sellicks Beach. The intention is to retain the rural character of the area. The State Planning Authority has interim development control over the area between Adelaide and Monarto, the Flinders Ranges Planning Area, the area around the proposed Redcliff petrochemical works, Kangaroo Island, some small portions of Metropolitan Adelaide and land fronting the River Murray.

The Authority is empowered to buy land, either by agreement or compulsorily, to assist in promoting development in accordance with the development plan, and a Planning and Development Fund is provided to assist the Authority in carrying out this function.

By 31 December 1977, 4 939 hectares of land had been acquired by the State Planning Authority for major open spaces and regional parks in the Adelaide Area at a cost of \$11 305 500. Work was proceeding on the development of Regency Recreation Park at Islington, north of Adelaide.

In other parts of the State a total of 3 976 hectares of land had been acquired by the Authority by the end of 1977 at a cost of \$1 503 100.

The control of land subdivision throughout the State, with the exception of the City of Adelaide where there is no control, is vested in the Director of Planning and the local government authority in the area in which the land is situated. If permission to subdivide is refused, there is a right of appeal to the Planning Appeal Board.

The Minister for Planning is responsible for the administration of the Planning and Development Act and the Director of Planning heads the State Planning Office.

### **Monarto**

A new city, which will eventually accommodate over 100 000 people, is to be established near Murray Bridge, 80 kilometres south-east of Adelaide.

The Monarto Development Commission is responsible for the implementation of the project and has acquired 19 000 hectares of land. Most of the land is still being farmed but extensive areas are being prepared for urban development by planting of trees, encouragement of regeneration of natural vegetation and soil and pasture improvement. The initial development areas have been identified and servicing and subdivisional plans prepared.

The timing of development will be determined following a review of the current and projected growth of Adelaide.

### **Coast Protection**

The Coast Protection Act, 1972-1975 provides for the conservation and protection of the State's coastline, including its foreshore and beaches. A Coast Protection Board of six members has been established under the chairmanship of the Director of Planning. Its objectives are broadly to protect and restore the coast, to develop any part of it for enjoyment by the public and to carry out research.

The Board makes grants to local government authorities to assist them with projects and to help carry out work within the boundaries of the appropriate coast protection districts. Work would include the provision of boating facilities, protecting embankments, car park areas and other public amenities. Loss of sand from several metropolitan beaches is a major problem and the Board is devoting technical and financial resources to a sand replenishment program.

Coast protection districts may be established for any part of the coast, after which management plans are to be prepared setting out the measures needed to protect the coast and secure its most appropriate use. Proposed developments that are contrary to the management plan may be refused by the Board subject to right of appeal to the Planning Appeal Board.

Two coast protection districts, Metropolitan and Yorke, were declared in 1973; Fleurieu coast protection district and South East were declared in 1974 and 1976 respectively. The declaration of the remaining three districts, Eyre, Spencer and Kangaroo Island coast protection districts will follow.

The management plan for the Metropolitan coast protection district which extends from Sellicks Beach to Port Gawler is expected to be completed in 1978. This will be followed by the management plan for the Yorke district which includes the coastline from Port Gawler to the northern boundary of the District Council of Port Broughton. As a first step to commencing preparation of a management plan for the Fleurieu district, which extends south from the northern boundary of the hundred of Myponga to the centre of the Murray Mouth, consultants were commissioned to undertake a study report of the district; this was completed in 1978. The South East coast protection district study report started in 1978.

In 1976-77 the Coast Protection Board expended \$1 135 000 on foreshore protection, repairs, improvements and restoration and the purchase of land. Much of this work was undertaken by local government bodies who contributed a further \$79 800 towards the cost of the works. At 30 June 1977, a further \$683 000 had been committed to approved but, at that time, uncompleted projects.



**Department of Housing, Urban and Regional Affairs**

The Department of Housing, Urban and Regional Affairs was established in 1977 by the amalgamation of the State Planning Office, the Urban Land Price Control Unit, the Office of the Minister of Mines and Energy and Minister of Planning and the Office of the South Australian Land Commission.

The main functions of the Department are:

- (1) to assist the Minister in promoting more efficient and equitable urban and regional development;
- (2) to assist the integration of urban and regional development programs and projects of all State Government agencies;
- (3) to develop a comprehensive housing policy.

The Department also administers the Urban Land (Price Control) Act, 1973-1976 which provides for the control of the price of residential allotments of land within the metropolitan area of Adelaide. During 1976-77, 761 applications for consent in accordance with the Act were submitted for approval, 206 for subdivisions or re-subdivisions (comprising 5 873 newly created allotments) and 555 for the resale of single existing allotments.

**Rundle Mall**

A special article on the development of Rundle Mall appeared on pages 114-18 of the *South Australian Year Book* 1977.

**PART 4**

**LAND SETTLEMENT**

**4.1 LAND TENURE**

**IDENTIFICATION OF LAND AND REGISTRATION OF TITLE**

To facilitate the identification of land, the southern portion of the State encompassing all the arable land and certain pastoral areas has been subdivided into counties and these in turn have been generally subdivided into smaller units known as hundreds.

The first Surveyor-General, Colonel Light, had been instructed by the Colonisation Commissioners to divide the colony into towns and counties, and in 1842 the first nine counties were proclaimed. As the administration was having considerable difficulty in regulating the leasing of unsold lands for pasturage it was proposed in 1846 that boundaries of areas smaller than counties be created and the system of hundreds, used in some counties in England, was adopted.

The boundaries of early counties and hundreds followed natural features. As further counties and hundreds were declared, natural features suitable for boundary delineation were not always available and in most cases the boundaries were set parallel to lines of longitude and latitude.

In 1887 an area of 100 000 hectares was declared to provide for the town and irrigation area of Renmark on the River Murray. Similar areas were subsequently surveyed and proclaimed adjacent to other sections of the river.

There are currently forty-nine counties covering 23 per cent of the State, the last of these being declared in 1933. The counties have an average size of 463 000 hectares, varying from County Light, north of Adelaide, with 217 470 hectares to County Jervois on Eyre Peninsula with 959 000 hectares.

Counties are generally subdivided into hundreds, although four northern counties remain undivided and a number of others are only partly subdivided. There is considerable variation in the size of hundreds, while the number of hundreds in a completely subdivided county varies from eight in Counties Alfred and Kintore to thirty-four in County Jervois. New hundreds are created from time to time, the present total being 534. Hundreds are further subdivided into sections which in turn may be divided into allotments or occasionally blocks.

Land is therefore, for the purposes of title, identified by the county, hundred, and section, and, where appropriate, block or allotment within which it falls. Land in towns and in proclaimed irrigation areas may further be identified as falling within that town or area.

### Torrens System of Land Registration

Land transactions in South Australia are conducted under the Torrens System of land registration as provided by the Real Property Act, 1886-1975. This system, first introduced by the Real Property Act, 1858, was named after its author, Sir Robert Torrens, who was at that time Registrar-General of the Colony.

The Torrens System provides that the matter of title to land shall be a government responsibility. Each piece of land is represented by a certificate of title which, with very few (and in practice unimportant) exceptions, is guaranteed by the State. Retrospective examination which is necessary with general law title is eliminated and the costs and time involved in conveyancing can thus be kept to a minimum.

The following table shows details of mortgages, transfers and other transactions relating to land under the Real Property Act, 1886-1975 for each or the four years to 1976.

#### Real Property Act Transactions, South Australia

Item	1973	1974	1975	1976
	\$'000			
Amount lent on mortgages .....	579 263	739 239	855 614	1 348 980
Amount discharged .....	300 753	344 695	317 438	439 447
Value of property transferred (a) .....	897 100	874 000	920 100	1 263 800
	Number			
Certificate of title:				
Issues (b) .....	21 163	24 923	23 492	24 757
Transfers .....	63 778	51 645	50 728	54 357
Mortgages (c):				
Registrations .....	61 173	52 570	52 993	62 168
Discharges .....	58 229	51 567	49 365	54 023

(a) Includes sales and gifts of real and personal property, but excludes sales of shares and securities, devises by will, conveyances by which no beneficial interest passes, and gifts for religious or educational purposes.

(b) Includes limited titles and some replacement of old documents without change of ownership of land.

(c) Includes mortgages of Crown and other leases.

The Real Property (Registration of Titles) Act, 1945-1975 provides for the small proportion of land remaining under the general law to be converted to the Torrens System and this transition is still in progress in certain areas.

## LAND SETTLEMENT

## SYSTEMS OF TENURE

## CURRENT TENURE

In the table below, occupied land in South Australia is classified according to its present form of tenure. Thus 'Area sold, dedicated, etc.' does not represent the accumulated total of all alienated lands as certain alienated lands repurchased by the Crown are currently held under leases.

At 30 June 1977 land in South Australia was occupied as follows:

	Area Hectares	Proportion Per Cent
<b>Area sold, dedicated, etc.;</b>		
Sold .....	6 337 357	6.44
Free grants .....	384 076	0.39
Dedicated (a) .....	129 000	0.13
Under agreement to purchase .....	78 970	0.08
<b>Total .....</b>	<b>6 929 403</b>	<b>7.04</b>
<b>Area under lease and licence (b);</b>		
Perpetual .....	8 475 828	8.61
Pastoral .....	50 958 481	51.77
Other .....	572 516	0.58
<b>Total .....</b>	<b>60 006 825</b>	<b>60.96</b>
<b>Area in occupation</b> .....		
Remainder of State; Lakes and lagoons .....	3 198 943	3.25
Open for allotment or selection .....	—	—
Other vacant land (c) .....	28 302 507	28.75
<b>Total area of State .....</b>	<b>98 437 678</b>	<b>100.00</b>

(a) Includes State forest reserves.

(b) Includes areas held under Mining Acts.

(c) Includes surveyed roads, railways and other reserves, 9 304 439 hectares; of which 7 936 542 hectares are set apart as Aboriginal reserves.

In 1901 the area sold, granted and leased, *i.e.* the area occupied, was 37 934 751 hectares, increasing to 57 472 548 in 1924, but falling to 52 370 744 in 1931 because of decreased areas under pastoral lease. Since 1931 there has been a fairly steady increase to the present figure of 66 936 228 hectares.

## LAND ADMINISTRATION

Approximately 90 per cent of the occupied area of South Australia comprises Crown land held under lease and as such is controlled by the Department of Lands. This Department is charged with the general administration of Crown lands, and with making available under appropriate tenure newly developed lands and such lands as come into the hands of the Crown by resumption, expiry, surrender or forfeiture of existing tenure. The consent of the Minister of Lands (or the Minister of Irrigation in the case of irrigated lands) is required before the transfer, mortgage or sublease of any of the forms of tenure administered by the Department.

Land available for leasing is allotted by the Land Board and, in the case of pastoral lands, by the Pastoral Board, who interview applicants and make allotments on merit. The Boards also advise the Minister on matters connected with land settlement.

Leases and licences under the various mining Acts are issued and supervised by the Department of Mines, while the Woods and Forests Department and the Engineering and Water Supply Department are responsible for the issuing of leases over reserves and areas under their control.

## METHODS OF ALIENATING LAND

### **Sales under Agreement to Purchase**

There is provision for Crown lands to be alienated through an agreement to purchase. The purchase money is payable over varying terms not exceeding sixty-four years and the purchaser must comply with certain special conditions concerning the improvement and the development of the land, including the fencing of the property within the first five years. It is not necessary for an agreement to run the full term as, subject to the Minister's approval, purchase may be completed after six years provided the purchaser has complied with all the necessary conditions. Land allotted under Agreements to Purchase amounted to 49 hectares in 1976-77.

### **Sales at Auction**

Certain Crown lands may be sold at auction for cash. These include town lands, suburban lands exempt from the operations of the Land Board, and Crown lands which have been offered for lease and not taken up within two years. Town lands so sold are subject to limitations on resale and conveyance through mortgage during the first six years, and it is usually conditional that improvements, for an agreed function and of a certain minimum value, be erected within a stipulated period.

### **Free Grants and Reservations**

A free grant of Crown lands may be made for any public purpose. Of the 384 076 hectares thus alienated at 30 June 1977, 310 799 hectares had been granted for the Defence Research Centre. Lands may also be dedicated and reserved for a variety of purposes such as forest reserves, Aboriginal reserves, national parks, conservation parks, recreation parks, park lands and schools.

## METHODS OF LEASING AND LICENSING LAND

### **Leases for Limited Terms**

Pastoral lands outside the counties and large areas in the northern counties are held under pastoral leases granted for terms of forty-two years (except in the case of previously unoccupied lands when the term is twenty-one years) or for shorter terms where the land may be required for other purposes. Under the conditions of these leases the lessee must expend in improvements a sum as recommended by the Pastoral Board and must comply with certain conditions on stocking. Rent is based on the carrying capacity of the land, the distance from markets and the proximity of transport facilities, and in the case of recent leases, is reviewed every seven years. Such lands may be reallocated to the same lessees on expiry of the existing terms.

Persons may be granted a permit to search for water and if successful may take up a lease of 250 square kilometres of land. Such leases are granted for forty-two years at a nominal rental for the first ten years and a low rental thereafter. Conditions of stocking are also modified.

In certain circumstances, for example, where land has not been surveyed or its potential is uncertain, or where permanent alienation is not desirable, miscellaneous leases are issued for periods up to twenty-one years. Certain business and industrial sites may also be held under miscellaneous lease. Annual licences may be granted over Crown lands for certain industrial sites, grazing areas, fishermen's residences, holiday shack sites and other approved purposes.

Land reserved for the Woods and Forests Department was leased for cultivation or grazing purposes for a period not exceeding forty-two years. At 30 June 1977, 267 hectares of forest land were under lease.

### Perpetual Leases

Leases in perpetuity may be offered over Crown lands which have been surveyed or delineated on the public maps. The lessee is required to provide boundary fencing and may be required to clear and render available for cultivation a certain proportion of the land within a specified period.

In certain cases special perpetual leases are available under which no rent is payable for the first four years, and with less than full rent over the next six years.

Sections in government controlled irrigation areas are offered on perpetual lease and, if the land has not been cultivated previously, rents and water rates are payable on a sliding scale for the first three years. Certain improvements are required to be made. Town allotments in irrigation areas may be offered under perpetual lease either at auction, by calling applications, or may be let on annual licence. Allotments may also be offered at auction for cash or for agreement to purchase. Allotments not sold at auction may be sold by private contract.

During 1976-77, 2 128 hectares in irrigation areas were allotted under perpetual leases.

## MINING CLAIMS, LEASES AND LICENCES

### Legislation

The granting of leases and licences and the pegging of new claims is governed by the Mining Act, 1971-1976. A total of 281 private mines were current at 30 June 1977. Mineral royalties received by the Department of Mines during 1976-77 amounted to \$2 863 154.

The following table shows tenements held under Mining Acts for the last five years.

**Tenements Held Under Mining Acts, South Australia  
At 30 June**

Particulars	1973	1974	1975	1976	1977
Mineral claims . . . . .	1 330	415	159	90	68
Precious stones claims . . . . .	1 810	1 472	918	993	1 222
Leases . . . . .	1 188	1 477	1 425	1 361	674
Exploration licences (a) . . . . .	71	60	73	80	120
Petroleum licences and permits . . . . .	24	21	17	15	5

(a) Formerly Special Mining Leases under the repealed Mining Act, 1930-1962.

### Minerals Resumed

The mineral rights on private land have been resumed by the Crown so that all minerals are now the property of the Crown and there are no 'lands with the mineral rights alienated from the Crown' with different conditions applying to them. However, if minerals (other than extractive minerals) which have been resumed under the Mining Act, 1971-1976 are mined at any time in the future, upon application any royalties collected upon the minerals recovered are payable to the person so divested of his property in minerals.

A royalty of 2.5 per cent (5 per cent for extractive minerals) of the value of the minerals, immediately upon recovery from the earth, is payable to the Minister of Mines and Energy

on all minerals (except precious stones) recovered and sold or used for commercial purposes. No royalty is payable on precious stones. Royalty for extractive minerals is payable to the Extractive Areas Rehabilitation Fund.

### **Extractive Minerals**

Extractive minerals are defined as sand, gravel, stone, shell, shale or clay but not fire-clay, bentonite or kaolin. No person is permitted to peg claims for extractive minerals on freehold land other than the person who, immediately before the operation of the Mining Act, 1971-1976 held the mineral rights or had rights to mine the minerals by holding a claim or lease over the deposit. Normal pegging rights apply to extractive minerals on other than freehold land or exempt land, and also apply to other minerals on freehold land.

Under the present Act, all the royalties collected from the mining of extractive minerals are paid into the Extractive Areas Rehabilitation Fund to be used in rehabilitating land disturbed by the mining of or searching for extractive minerals. The Fund may also be used for research into methods of mining engineering and practice with a view to reducing environmental damage or impairment. Receipts into this Fund during 1976-77 amounted to \$471 000.

### **General Conditions**

A current miners right or, in the case of precious stones, a precious stones prospecting permit must be held by every prospector to authorise the pegging of the appropriate class of claim.

At least three weeks notice of entry for prospecting or mining purposes must be given to the landowner if the land is freehold or held on perpetual lease. Three weeks notice must also be given to the landowner before 'declared equipment' can be used on his land. In either case the landowner may lodge an objection with the Warden's Court.

A claim (other than a precious stones claim) has a maximum term of twelve months, is not transferable and must be converted to a lease before minerals can be removed for sale or used for commercial purposes.

A mining lease may be granted after twenty-eight days notice in the *South Australian Government Gazette* for a term of up to twenty-one years with certain rights of renewal. A mining lease is transferable with the Minister's consent and an annual rent is payable on a mining lease. Nineteen-twentieths of the rent collected on a lease on freehold land is paid to the landowner.

Exploration licences replaced Special Mining Leases as used under the previous Act. They have a maximum life of two years and a maximum area of 2 500 square kilometres and are subject to the terms agreed. Twenty-eight days notice must be given in the *South Australian Government Gazette* before an exploration licence is granted.

Mining leases and exploration licences are granted only under conditions which give proper consideration to the protection of the natural environment.

## **4.2 LAND SETTLEMENT SCHEMES**

### **CLOSER SETTLEMENT**

There is provision in the Crown Lands Act for acquisition of land for subdivision to encourage closer settlement. Such land is divided into blocks and offered under conditional agreements to purchase with payment over thirty-five and sixty-four year periods.

No land has been purchased for closer settlement since 1952-53, by which time 384 298 hectares had been purchased at a cost of \$5 730 400, including 21 008 hectares set apart for returned service personnel from the 1914-18 War, 1 302 hectares for forest and water conservation purposes and 10 758 hectares purchased in connection with the reclamation of River Murray swamp lands.

At 30 June 1977 a total of 47 463 hectares of closer settlement lands were held under agreement to purchase or lease.

### MARGINAL AREAS ASSISTANCE

The excessive opening up of the drier marginal lands for wheat growing resulted in many settlers in these areas being forced to leave their holdings, particularly in the 1930s.

Investigations showed that if the settlers were to succeed, cereal growing would need to be replaced by grazing. The Commonwealth Government established a Marginal Lands Improvement Fund to assist this development. The money was used to purchase properties from certain settlers with a view to enlarging the holdings of others, to provide fencing and water supplies and to pay small grants to settlers vacating holdings in which there was no equity.

The Fund was provided by the Commonwealth Government under the *Wheat Industries Assistance Act 1938*. An amount of \$1 426 000 was allocated to South Australia. By arrangement with the Commonwealth Government the rentals and income from sales of improvements on marginal lands which had been subject to adjustments under the above Fund are retained as an additional fund to be used for assistance to settlers in marginal areas. Receipts for 1976-77 amounted to \$26 400.

During 1967-68 an amount of \$150 000 was transferred from this Fund to the Farmers Assistance Fund. No advances were made from this Fund during 1976-77. The balance of the Fund at 30 June was \$450 113.

### CROWN LANDS DEVELOPMENT

The Crown Lands Development Act, 1943-1973, administered by the Department of Lands, provides for the development of Crown lands, or lands which the Department may purchase, and for the allotment of such lands to suitable settlers.

A substantial proportion of the land under the Act was developed with the object of inclusion in the War Service Land Settlement Scheme. Properties not accepted for the scheme were subsequently allotted under the Act, and since then a number of individual properties have been surrendered to the Crown for development and re-allotment to the former holders.

### ASSISTANCE FOR RETURNED SERVICE PERSONNEL

#### 1914-18 WAR

Following the 1914-18 War the State Minister for Repatriation was authorised to acquire land for the purpose of re-settling discharged servicemen. Such land could be purchased by agreement or acquired compulsorily, whether held in fee simple or under Crown lease. Crown lands could also be set apart for this purpose. The land acquired was subdivided where appropriate and offered under agreement to purchase, perpetual lease or a term lease. Provision was also made for the discharging of existing mortgages on freehold properties already held by ex-servicemen, with fresh mortgages in favour of the Minister of Repatriation.

In all, 3 801 ex-servicemen were settled under this Act with 3 008 settling in 'dry lands' and 793 in irrigation areas.



## 1939-45 WAR AND KOREA-MALAYA OPERATIONS

**War Service Land Settlement**

Under the War Service Land Settlement Scheme, provision was made for the settlement on rural holdings of certain ex-servicemen from the 1939-45 War and Korea and Malaya operations.

Suitable Crown land was made available and other land was acquired. This land was subdivided and developed to a stage where it could be brought into production by the individual settler within a reasonable time. Basic structural improvements were provided and it was then offered to eligible settlers on perpetual lease. Credit facilities are available to these settlers for working capital, the purchase of stock and equipment, and the effecting of further improvements.

During the first year after allotment in the case of 'dry lands' settlers, and the first year after an irrigation holding became self-supporting the settler was granted a living allowance and was exempted from the payment of rent or interest in respect of the holding, and of payments on account of principal or interest in respect of advances, other than advances for working capital. Provisions exist for a settler on 'dry lands' to convert property to freehold after a period of ten years by the payment of a fixed purchase price and the repayment of all advances. There is no provision for freeholding in government irrigation areas.

The following table shows for recent years the number of farms allotted and total expenditure under the War Service Land Settlement Scheme.

**War Service Land Settlement, South Australia**  
**Farms Allotted and Total Expenditure to 30 June**

Particulars	1974	1975	1976	1977
Farms allotted:				
Number .....	1 032	1 032	1 032	1 032
Area ('000 hectares) .....	285	285	285	285
Expenditure:			\$'000	
State .....	8 671	9 173	9 638	10 210
Commonwealth Government;				
Acquisition of land .....	6 837	6 846	6 846	6 846
Development and improvement of land .....	31 701	31 686	31 682	31 658
Provisions of credit facilities .....	40 011	41 458	42 544	43 512
Other .....	14 496	15 143	15 875	16 537
Total expenditure by Common- wealth Government .....	93 045	95 133	96 947	98 553
Total expenditure .....	101 716	104 307	106 585	108 763

The Department of Lands administers the War Service Land Settlement Scheme on behalf of the Commonwealth Government. The Commonwealth Government provides the funds and meets the costs of the scheme with the exception of administration costs and two-fifths of any losses, which are met by the South Australian Government.

All large scale development operations under the scheme have now been completed. The principal areas settled are in the South East, on Kangaroo Island, Eyre Peninsula, and in irrigation areas along the River Murray.

### Loans and Allowances (Agricultural Occupations) Scheme

The Commonwealth Government through the State Bank of South Australia provided financial assistance for the establishment or re-establishment of ex-servicemen in agricultural occupations. Loans were made for a variety of purposes and non-repayable allowances were made where income during the course of re-establishment proved to be inadequate. The payment of allowances and the advancing of new loans ceased in 1956-57 by which date loans totalling \$2 009 096 had been made to 1 288 ex-servicemen, and allowances totalling \$649 218 had been granted to 2 264 ex-servicemen.

An additional Marginal Lands Improvement Fund was established in 1943 from which expenditure of \$416 476 had been made to 30 June 1977 by the Department of Lands.

### SOUTH AUSTRALIAN LAND COMMISSION

The South Australian Land Commission was established in November 1973 under the provisions of the Land Commission Act, 1973. In its first annual report to 30 June 1974 the Commission stated its objectives as being:

- (1) to stabilise the price of urban land by its active participation in the acquisition, management, development and disposal of land for the whole range of urban uses;
- (2) to divert the flow of land value increments resulting from the conversion of land to urban use or the assumption by land of a potentiality for urban use through community development, to the community;
- (3) to achieve comprehensive and orderly urban development which does not occur when development decisions are taken by individual land owners on the basis of their own personal situations.

Financial assistance has been provided by the Commonwealth Government under the *Urban and Regional Development (Financial Assistance) Act 1974*. At 30 June 1977, the Commission has received advances of \$46 731 000 for the acquisition of land for development purposes. Financial assistance (\$6 025 000 as at 30 June 1977) has also been received from the State Government.

Land purchased or acquired by the Commission for urban purposes at 30 June 1977 was 4 722 hectares within localities designated for urban development in the Metropolitan Development Plan, 42 hectares in country towns and 1 747 hectares of land within localities designated for Metropolitan Open Space.

Since first releasing fully serviced housing allotments on to the market on 11 April 1975 at Happy Valley, the Commission has sold, to 30 June 1977, a total of 2 062 allotments at Happy Valley, Salisbury North, Morphett Vale, Bolivar, Hallett Cove, Reynella, Modbury North, Aberfoyle Park and Craigmore.

A total of 3 056 fully serviced allotments were completed during 1976-77. A further 1 974 are under construction and due for completion during 1977-78.

In addition to subdivisional development, the Commission continues to be involved in several other streams of activity—planning and development of neighbourhoods, suburban scale planning, community and retail centre planning and cluster housing projects. This activity is being facilitated by the expanded use of various professional and management skills operating in the consulting and development industry.

### PRIVATE LAND DEVELOPMENT SCHEMES

The most important private scheme in South Australia has been a project, begun in 1949 by the Australian Mutual Provident Society to develop a large area of land in the south-east of the State in what was previously known as the Ninety Mile Desert. The

development of this area was made possible by the discovery that the retarded nature of the country was caused by certain soil deficiencies, and that these deficiencies could be overcome by the addition of trace elements (mainly copper sulphate and zinc sulphate) to the soil.

Large tracts of unimproved land were obtained either by purchasing existing leases or by Crown allotment. Intending settlers were employed by the Society in the development work, covering a period of approximately five years, and were then allotted a holding over which they had a perpetual lease title. The Society provided finance for the purchase of land, and for stock, plant and working expenses. In all, 38 880 hectares were taken up by employees of the Society.

In addition to the development of land for employees a large area was developed to various stages and sold to the public; sales in this category amounted to 132 435 hectares.

## ADVANCES TO THE RURAL SECTOR

### GOVERNMENT ADVANCES

#### Financial Details

The following table gives details of total advances made to the rural sector by government authorities and balances outstanding at 30 June 1977.

#### Advances to Settlers, South Australia

Particulars	Advances made during 1976-77	Total Advance at 30 June 1977	Principal Outstanding at 30 June 1977	
			Persons	Amount
	\$	\$	Number	\$
Department of Lands:				
Advances to soldier settlers .....	—	10 143 560	129	120 371
Advances under closer settlement Acts .....	—	5 461 033	80	91 594
Settlement of returned service personnel (1939-45 War) (a) .....	1 101 190	43 506 094	486	6 638 886
Advances under Crown Lands Development Act .....	—	985 623	40	530 349
Advances in drought affected areas .....	252 105	1 087 491	127	296 516
Advances under Marginal Dairy Farms Reconstruction Scheme (a) .....	218 526	1 143 805	166	937 841
Advances under Rural Industry Assistance Scheme (a) .....	5 840 953	32 386 090	892	21 436 167
Advances under Fruitgrowing Reconstruction Scheme (a) .....	104 840	317 310	206	305 503
Advances under Beef Industry Assistance Scheme .....	139 397	714 009	81	614 747
Advances to soldier settlers; Irrigation .....	—	2 096 348	38	42 880
State Bank of South Australia:				
Advances to settlers for improvements (b) .....	168 864	4 623 423	342	1 408 447
Advances under vermin and fencing Acts (c) .....	—	2 982 711	1	43 000
Advances under loans to producers Acts .....	4 129 104	37 905 614	309	16 121 912
<b>Total .....</b>	<b>11 954 979</b>	<b>143 353 111</b>	<b>2 897</b>	<b>48 588 213</b>

(a) Advances made from funds provided by the Commonwealth Government.

(b) Adjustment of cancelled and re-allotted holdings.

(c) Vermin proof fencing and loans for fencing and water piping.

#### Advances Administered by State Bank

In addition to advances made under schemes mentioned above, the State Bank administers certain funds provided by the State for rural development.

Under the Advances to Settlers Act, 1930-1972, the Bank makes advances to settlers for a variety of purposes including general improvements, the purchase of livestock and the discharging of existing mortgages. The Loans to Producers Act, 1927-1962 empowers the Bank to make advances for certain developmental projects and the purchase of certain capital equipment. The Bank also administers Acts providing loans for the construction of vermin-proof fencing, general fencing and the laying of water piping.

#### **Marginal Dairy Farms Reconstruction Scheme**

The Marginal Dairy Farms (Agreement) Act, 1971 ratified an Agreement between the South Australian and Commonwealth Governments to overcome the problem of low incomes within the dairy industry, particularly in the case of producers relying on the sale of milk or cream for manufacturing purposes.

The scheme provides for farmers whose farms have insufficient potential to become viable economic units, while based on the sale of milk or cream for manufacturing purposes, to voluntarily sell their land to the State at market value. The State may then dispose of the land on the basis of the most profitable and economic land use, particularly with a view to building other rural properties to economic levels. The scheme also provides for development/diversification loans in respect of an existing dairy, interest free loans for the on-farm purchase and installation of refrigerated bulk milk vats, and loans to dairy factories to facilitate the collection, storage and processing of refrigerated bulk milk.

At 30 June 1977, 353 applications had been received of which 265 were approved and sixty-six declined. Funds for the scheme are provided by the Commonwealth Government when required. At 30 June 1977, \$1 686 001 had been expended on the purchase of dairy farms and other assistance to approved applicants.

#### **Rural Industry Assistance Scheme**

The Rural Industry Assistance (Special Provisions) Act, 1971 effects an agreement between the Commonwealth and South Australian Governments for a scheme of assistance to help restore to a profitable basis those farms and farmers with a capability to service commitments and reach a stage of commercial viability within a reasonable time. The scheme provides for carry-on finance, debt reconstruction, farm build-up and rehabilitation loans.

Carry-on finance and debt reconstruction are designed to assist the farmer who, although having sound prospects on a long-term basis, has used all of his cash and credit resources and cannot meet his financial commitments. Advances for carry-on finance and/or debt reconstruction bear interest at the rate of not less than 4 per cent a year.

Farm build-up is to assist the process whereby farms which are too small to be profitable can be enlarged to an economic unit. Interest on advances is chargeable at a rate of not less than 6.25 per cent a year.

Funds were provided initially by the transfer of the balance of the Primary Producers Debt Adjustment Fund (\$804 636) to the Rural Industry Fund. Other contributions to the Fund are made by the Commonwealth Government in accordance with the Agreement and at 30 June 1977, \$23 281 000 had been received. The State is liable for the repayment to the Commonwealth Government of 75 per cent of the moneys made available by the Commonwealth Government for the purpose of the scheme together with interest at the rate of 6 per cent a year.

Total advances from the Fund by way of repayable loans to 30 June 1977 amounted to \$32 379 000.

Details of the number of applications received and the expenditure involved are shown in the following table.

**Rural Industry Assistance: South Australia, Applications, Approvals and Expenditures from Commencement of Operations to 30 June 1977<sup>(a)</sup>**

Debt reconstruction:	
Applications received .....	1 120
Applications declined .....	713
Applications approved .....	374
Total assistance approved .....	\$13 763 733
Expenditure to 30 June 1977 .....	\$13 717 343
Average assistance approved .....	\$34 690
Farm build-up:	
Applications received .....	978
Applications declined .....	408
Applications approved .....	487
Total assistance approved .....	\$19 996 770
Expenditure to 30 June 1977 .....	\$18 646 421
Average assistance approved .....	\$41 061
Rehabilitation:	
Applications received/approved .....	12
Total assistance approved .....	\$22 500
Expenditure to 30 June 1977 .....	\$17 807

(a) Commenced 27 May 1971.

### **Fruitgrowing Reconstruction Scheme**

The Fruitgrowing Industry (Assistance) Act, 1972 effects an agreement between the Commonwealth and South Australian Governments for a scheme of assistance to horticulturalists to remove redundant plantings of trees of the varieties used in the production of canning peaches, pears, apricots, and fresh apples and pears. Growers are entitled to maximum levels of assistance of \$202 per hectare for canning fruits and \$142 per hectare for fresh fruits.

Assistance is provided initially in the form of a secured loan bearing interest at the rate of 6.25 per cent a year. The grower is obliged to enter into an undertaking that for the next five years he will not replant on the property from which the trees have been removed, any trees of the type specified. On compliance with the undertaking, interest will be rebated, securities discharged and the loan converted into a grant.

Funds made available by the Commonwealth to 30 June 1977 were \$347 000 of which \$272 000 has been advanced to growers.

### **Beef Industry Assistance Scheme**

The Beef Industry Assistance Act, 1975 provides for financial assistance to specialist beef producers for carry-on finance to assist the producer to reach commercial viability.

Funds totalling \$3 million were allocated to the scheme comprising \$1.5 million from State funds and a matching dollar for dollar advance by the Commonwealth Government.

The scheme provides for loans up to a maximum of \$15 000 for servicing essential carry-on requirements and interest at the rate of four per cent a year with repayment over a maximum period of seven years. No repayment of principal would be required during the first year of operation. Interest for the corresponding period would be capitalised.

At 30 June 1977, ninety-three applications for assistance had been approved and repayable advances of \$807 000 had been made to beef producers.

### **Farmers Assistance Fund**

The Primary Producers Emergency Assistance Act, 1967 provides a means of servicing the essential carry-on requirements of primary producers suffering loss as a result of drought, fire, flood, frost, animal or plant disease, insect pest or other natural calamity. Assistance is given to enable such persons to continue in the business of primary production where no other source of financial assistance is available to them and who, by virtue of the assistance, have a reasonable prospect of being able to continue in the business of primary production.

Payments and/or direct grants may also be made towards the cost of fodder or water for starving stock, including the transport of livestock to and from agistment and for any other purpose deemed necessary.

The first \$1.5 million expenditure in any calamity is to be borne from State funds.

Loans bear interest at the rate charged by the State Bank of South Australia in respect of overdraft loans made to primary producers at the time of making the advance.

### **PRIVATE INSTITUTIONAL ADVANCES**

Many financial institutions advance funds for rural development.

At July 1977 the major trading banks had advances outstanding to residents of South Australia employed in agriculture, dairying and grazing, of \$120.4 million. At June 1977 branches of major pastoral finance companies located in South Australia had \$58.5 million outstanding on similar advances.

## **4.3 STATISTICAL DIVISIONS AND SUBDIVISIONS**

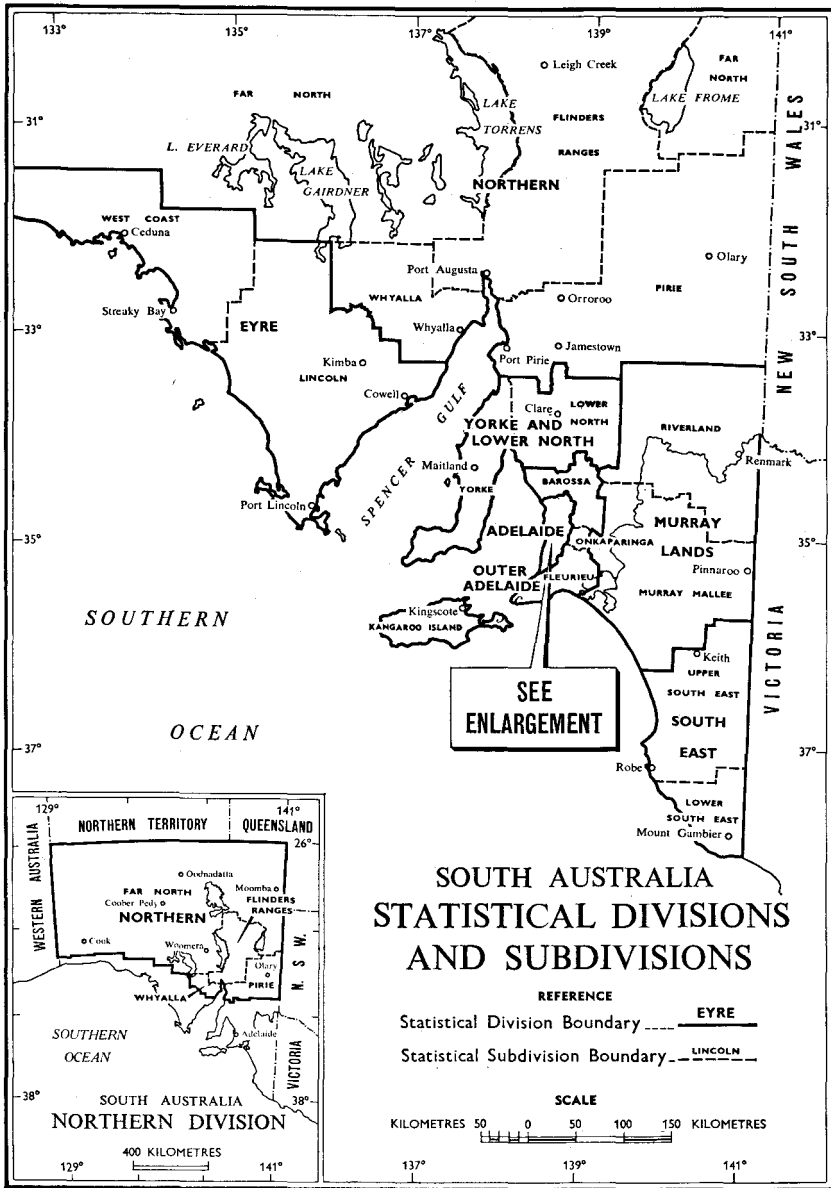
For the purpose of presenting the statistical series of South Australia, the State is divided into a number of areas which are entitled statistical divisions.

### **PREVIOUS STATISTICAL DIVISIONS**

Statistical series for South Australia have been published at various times under two different sets of statistical divisions—'Primary' Statistical Divisions, the boundaries of which have followed the boundaries of proclaimed counties, and 'Census' Statistical Divisions, where boundaries for the most part have followed the boundaries of local government areas.

Before 1889 agricultural statistics were published for counties from at least 1851, and local government areas from 1854. Publication of statistics by 'Primary' Statistical Divisions commenced in 1889 on the basis of five statistical divisions made up of thirty-eight counties. In 1920-21 an additional division was created to limit the number of counties in each division (as the number had by this time increased to forty-eight) and the number of 'Primary' divisions remained at six from that date.

Early population census results were published on the basis of local government areas and counties, but for the 1891 and 1901 Censuses the five 'Primary' Statistical Divisions were used. The Census of 1911, which was the first conducted by the Commonwealth Government reverted to the use of counties for published results whereas subsequent censuses, up to and including 1947, were published using local government areas. Details of the 1954 and subsequent population censuses have been published by 'Census' Statistical Divisions.



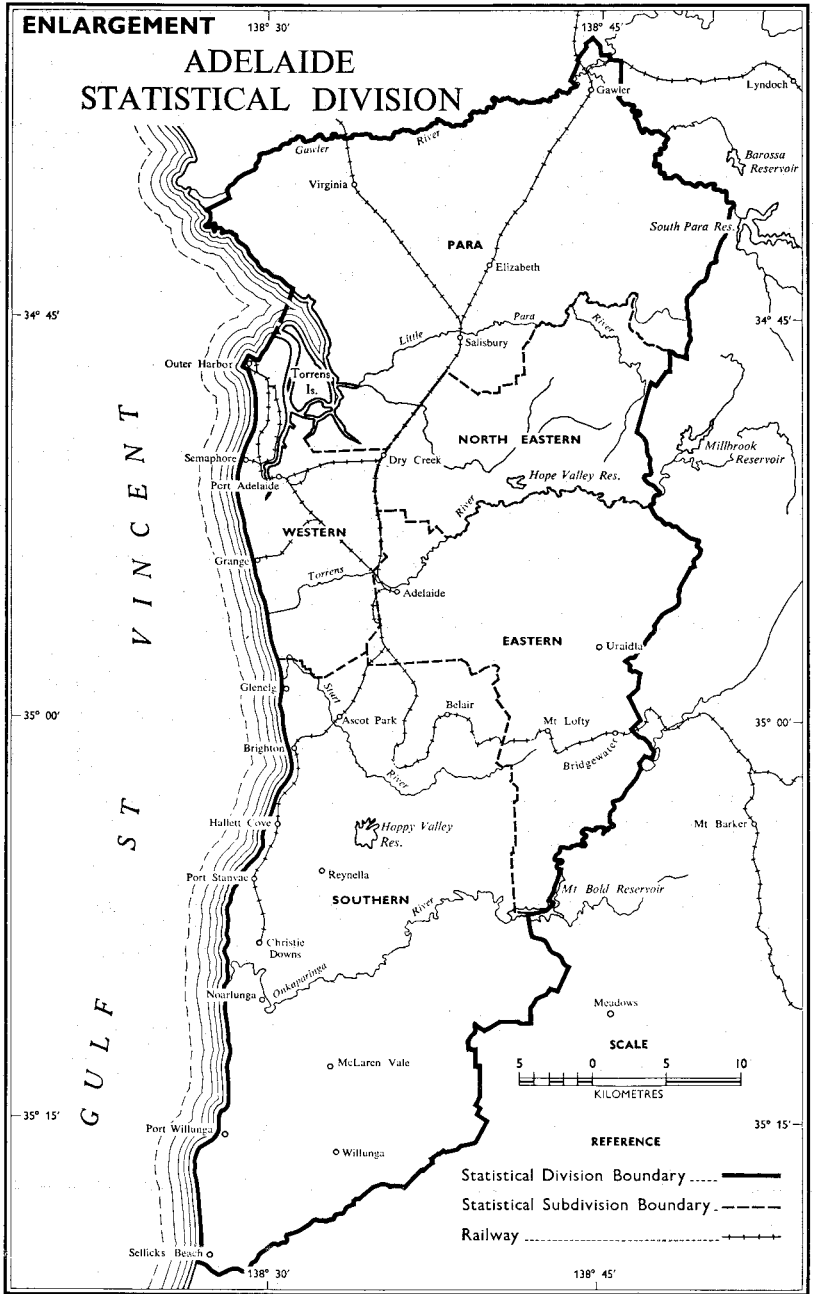
SEE ENLARGEMENT

### SOUTH AUSTRALIA STATISTICAL DIVISIONS AND SUBDIVISIONS

REFERENCE

Statistical Division Boundary --- EYRE  
Statistical Subdivision Boundary ..... LINCOLN

SCALE  
KILOMETRES 50 0 50 100 150 KILOMETRES





For the 1966 Census an additional division, the Adelaide Statistical Division, was delineated to embrace the area expected to contain the urban development of Adelaide during a period of at least twenty years.

Although, ideally, statistical division boundaries should remain unchanged over time so as to enable comparisons to be made of constant areas, growth in certain statistical divisions, together with the adoption of the Adelaide Statistical Division for the 1966 Population Census, made it desirable to review the boundaries and to select a new group of statistical divisions.

The new statistical divisions were designed to represent closely allied and meaningful areas of production and community interest and where areas smaller than divisions were considered to be important, subdivisions were introduced.

These statistical divisions and subdivisions were adopted for the publication of official statistics from 1 January 1971.

#### **CURRENT DIVISIONS AND SUBDIVISIONS**

From 1 July 1976 new statistical divisions and subdivisions were adopted for the publication of official statistics. Maps showing the new statistical divisions and subdivisions are included on pages 105 and 106. A more detailed article together with descriptions of the divisions and subdivisions was included on pages 135-43 of the *South Australian Year Book 1977*.

## **PART 5**

# **POPULATION**

## **5.1 THE CENSUS**

### **PRE-FEDERATION ACTIVITY**

#### **Early 'musters'**

Population returns in one form or another have existed from a very early period in the history of Australia. The earliest enumerations were known as 'musters', and although the actual results of very few of them have been preserved, it is probable that during the early days of colonisation they were of frequent occurrence. The first official 'muster' was taken in 1788 soon after the new settlement at Sydney Cove was formed, and in 1803 the first 'muster' of convicts in Van Diemen's Land (now Tasmania) was conducted.

#### **Development of the Census**

The first regular census in Australia was taken in New South Wales in November 1828, and included the population of Moreton Bay (now Queensland) but not Van Diemen's Land (Tasmania). Details of the names, ages and civil conditions of the inhabitants were sought. The next census was taken in 1833, and was followed by another in 1836, when arrangements were made for the enumeration of the population of the newly-established settlement at Port Phillip (Victoria). The first censuses taken in Tasmania, Victoria and Queensland as separate colonies were in 1841, 1854 and 1861 respectively. The first recognised census in South Australia was taken in 1844 and in Western Australia in 1848. The 1881 census was the first simultaneous census taken in Australia and formed part of the first simultaneous census of the British Empire.

## CENSUSES OF AUSTRALIA

Under the Commonwealth of Australia Constitution Act of 1900, 'Census and Statistics' became Commonwealth Government functions and with the passing of the empowering legislation, the *Census and Statistics Act 1905*, all censuses of Australia have been taken under the authority of this Act and the regulations made thereunder. The first Australian census collected under the Act was that of 1911; subsequent censuses were taken in the years 1921, 1933, 1947, 1954, 1961, 1966, 1971 and 1976, while the next census is planned for 1981. The Act provides that the census should be taken by means of a householder's schedule delivered to every dwelling and that this schedule should contain particulars of the dwelling and its inmates.

**Periodicity and Date of the Census**

The *Census and Statistics Act 1905* provided that the Census should be taken 'in the year one thousand nine hundred and eleven and in every tenth year thereafter'. But in 1930 this was amended by the addition of the words 'or at such other time as is prescribed'. Because of the economic depression prevailing in 1931 the third Australian Census was not taken until 1933, and because of war conditions the fourth Australian census was not taken until 1947. Consideration was then given to the practicability of holding future censuses in the series of years originally envisaged. However, it was considered that the interval of years from 1947 to 1951 was too short; therefore it was decided to take the fifth census in 1954 at the mid-point of the period from 1947 to 1961. The sixth census was held in 1961. Because of the administrative demand for more frequent counts of the population the seventh census was held in 1966, the eighth in 1971 and the ninth in 1976.

The *Census and Statistics Act* provides that 'the Census day shall be a day appointed for that purpose by proclamation', but the actual date is not specified. The census is conducted on a *de facto* basis, i.e. it records the population actually in Australia at the place where located on census day (as distinct from a *de jure* basis, which records the population according to place of usual residence). However, for the 1976 Census there is facility to extract population details on a *de jure* basis from the local government level to the whole State. In the selection of census day every endeavour is made to choose a date when there is a minimum displacement of population. In 1911 and 1921, census day was near the beginning of April, but in 1933 and subsequently, census day has been at the end of June because this time has fulfilled the condition mentioned and is otherwise suitable, being the end of a financial year and of a quarterly period used extensively for statistical purposes.

**Scope of the Census**

The census covers the population and dwellings of Australia.

Persons excluded from results of Censuses up to 1966 were:

- (i) diplomatic representatives of other Governments and their families and staffs having diplomatic immunity in accordance with international practice;
- (ii) full-blood Aborigines, pursuant to Section 127 of the Constitution which specifically excluded them from the count of the population.

Diplomatic representatives, families and staffs are still excluded but, following the results of a referendum held in 1967, Section 127 of the Constitution was repealed and full-blood Aborigines were included in the Census from 1971. In 1971 Census publications, where 1966 figures are also shown, these figures have been amended to include full-blood Aborigines and thus provide comparability: this can be done for all tables other than those on the labour force.

Broadly the principle is to record at the census babies born at or before midnight of census day and to exclude persons dying before midnight of census day. Travellers on ships in or between Australian ports at midnight of census day are also included.

For census purposes the Act defines a dwelling as 'a building, erection, or tenement, whether permanent or temporary, which is wholly or partly used for the purpose of human habitation and includes any ship or other vessel in any port of the Commonwealth or in any inland waters thereof, or any ship or vessel on a passage between any two Commonwealth ports'. Section 10 (2) provides that 'where a building is let, sub-let, or held in different apartments and occupied by different persons or families, each part so let, sub-let, or held and used for the purpose of human habitation shall be deemed a dwelling'. Measurable characteristics such as class of dwellings, materials of outer walls, number of inmates in relation to number of rooms, facilities and rentals are recorded.

The census data on occupied dwellings are obtainable from the completed householder's schedules. However, census collectors are responsible for recording, from personal observations or inquiry, particulars also of dwellings which are unoccupied on census day, including those temporarily unoccupied or those used for 'holiday purposes'. Dwellings excluded from census results are those occupied by accredited persons having diplomatic immunity. Dwellings occupied solely by full-blood Aborigines also were excluded at censuses before 1971.

#### **Australian Parliamentary Representation and the Census**

The *Representation Act* 1948 obliges the Chief Electoral Officer to ascertain the number of people in Australia and in each of the States from time to time for the purpose of determining the number of Members of the House of Representatives to be chosen from each State, all 'Statistical Officers' being authorised and required to furnish all the information the Chief Electoral Officer needs for this purpose.

After each census the Chief Electoral Officer requests the Australian Statistician to supply the information required for the purposes of the Representation Act. From such information the Chief Electoral Officer prepares the requisite certificate and this is published in the *Australian Government Gazette*.

A more detailed description outlining the history, purposes, legal basis, organisation and publication of the results of the population census in Australia was included on pages 77-86 of the *South Australian Year Book* 1968.

## **5.2 POPULATION GROWTH AND DISTRIBUTION**

The population of South Australia had reached 17 366 persons at the first Census on 26 February 1844. In 1861, twenty-five years after the first settlers arrived, the population was 126 830 and this figure had more than doubled by the Census in 1881. By 1921 the population was almost 500 000 persons and it is estimated to have reached 1 000 000 persons in January 1963. The population at 30 June 1976 was estimated as 1 261 600 persons.

South Australia's population as recorded at the 1976 Census has been adjusted for underenumeration utilising results from a post-enumeration survey conducted after the census to measure the degree of census error. Net underenumeration was derived by comparing results from the census and the survey and identifying omissions and duplications in the census. Upward adjustment made was 1.35 per cent for 1976. The 1971 Census figure has been adjusted for underenumeration revealed in a similar survey and further revised following reconciliation of intercensal recordings of natural increase and migration, giving a net upward adjustment of 0.99 per cent.

## Population: South Australia, Censuses 1844 to 1976

Census Date	Population (a)			Average Annual Increase	
	Males	Females	Persons	Number	Per Cent
1844 26 February	9 686	7 680	17 366	..	..
1846 26 February	12 670	9 720	22 390	2 512	14.47
1851 1 January	35 302	28 398	63 700	8 262	36.90
1855 31 March	43 720	42 101	85 821	5 530	8.68
1861 8 April	65 048	61 782	126 830	6 835	7.96
1866 26 March	85 334	78 118	163 452	7 324	5.78
1871 2 April	95 236	90 189	185 425	4 395	2.69
1876 26 March	109 841	102 687	212 528	5 421	2.92
1881 3 April	145 113	130 231	275 344	12 563	5.91
1891 5 April	161 920	153 292	315 212	3 987	1.45
1901 31 March	180 485	177 861	358 346	4 313	1.37
1911 3 April	207 358	201 200	408 558	5 021	1.40
1921 4 April	248 267	246 893	495 160	8 660	2.12
1933 30 June	290 962	289 987	580 949	7 149	1.44
1947 30 June	320 031	326 042	646 073	4 652	0.80
1954 30 June	403 903	393 191	797 094	21 574	3.34
1961 30 June	491 406	480 081	971 487	24 913	3.13
1966 30 June	550 196	544 788	1 094 984	24 699	2.54
1971 30 June(b)	586 051	587 656	1 173 707	15 745	1.44
1976 30 June (b)	620 162	624 594	1 244 756	14 210	1.21

(a) Excludes full-blood Aborigines before 1961 Census. (b) 1971 and 1976 Census figures have not been adjusted for underenumeration. Adjusted figures were 1 185 300 and 1 261 600 respectively.

In the following table, increases in the population have been classified as *recorded natural increase* (the excess of recorded births over recorded deaths) and *other increases* (which consists mainly of the excess of arrivals over departures, either from overseas or interstate).

Increases in the Population, South Australia<sup>(a)</sup>

Period	Recorded Natural Increase			Other Increase <sup>(b)</sup>			Total Increase
	Males	Females	Persons	Males	Females	Persons	Persons
Annual Average:							
1881-1890	3 349	3 535	6 884	(-) 1 488	(-) 1 141	(-) 2 629	4 255
1891-1900	2 832	3 024	5 856	(-) 973	(-) 567	(-) 1 540	4 316
1901-1910	2 665	2 745	5 410	(-) 44	(-) 404	(-) 448	4 962
1911-1920	3 508	3 614	7 122	366	926	1 292	8 414
1921-1930	3 131	3 300	6 431	1 201	714	1 915	8 346
1931-1940	(c)1 787	(c)1 929	(c)3 716	(-) 860	(-) 397	(-) 1 257	2 459
1941-1950	(c)3 977	(c)4 026	(c)8 003	2 705	1 671	4 376	12 379
1951-1960	5 631	5 923	11 554	6 279	5 585	11 864	23 418
1961-1970	5 980	6 401	12 381	4 206	4 975	9 181	21 562
Year:							
1971	6 487	6 823	13 310	3 204	2 619	5 823	19 133
1972	5 822	6 258	12 080	924	1 113	2 037	14 117
1973	4 973	5 599	10 572	3 942	3 194	7 136	17 708
1974	4 761	5 184	9 945	8 154	8 248	16 402	26 347
1975	4 746	5 293	10 039	(-) 2 456	(-) 3 841	(-) 6 297	3 742
1976	4 376	4 572	8 948	1 106	1 433	2 539	11 487

(a) Excludes full-blood Aborigines before 1961. (b) Figures post-1970 exclude short-term overseas migration. (c) Deaths of defence personnel (except those registered on civil registers during 1940 and 1941) not deducted in calculating natural increase.

As from June 1971, intercensal estimates of overseas migration exclude short-term (less than one year) movements, consistent with the measurement of interstate migration. Annual average increases which are given for each 10-year period since 1861 show some important aspects of the development of the State, namely:

- (i) the net migration, especially of males, away from South Australia following the mineral discoveries in other States in the 1880s and early 1890s;
- (ii) the slow growth during the economic depression of the 1930s when natural increase fell to a particularly low level; and
- (iii) the high rate of migration in the post 1939-45 War period up to 1960.

**Rate of Increase of Population, South Australia and Australia<sup>(a)</sup>**

Period	South Australia			Australia		
	Recorded Natural Increase	Other Increase	Total Increase	Recorded Natural Increase	Other Increase	Total Increase
<b>Annual Average:</b>						
1881-1890 . . . .	22.67	(—)8.66	14.01	19.96	14.23	34.19
1891-1900 . . . .	16.90	(—)4.44	12.46	16.91	0.71	17.62
1901-1910 . . . .	14.70	(—)1.22	13.48	15.29	1.00	16.29
1911-1920 . . . .	15.99	2.90	18.89	15.77	4.20	19.97
1921-1930 . . . .	11.87	3.53	15.40	12.97	5.23	18.20
1931-1940 . . . .	(b)6.33	(—)2.14	4.19	(b)7.92	0.60	8.52
1941-1950 . . . .	(b)12.50	6.83	19.33	(b)12.04	4.34	16.38
1951-1960 . . . .	13.81	14.18	27.99	13.71	8.73	22.44
1961-1970(c)	11.57	8.58	20.15	11.79	5.75	17.53

(a) Rate per 1 000 of mean population. (b) Deaths of defence personnel (except those registered on civil registers during 1940 and 1941) not deducted in calculating natural increase. (c) Excludes full-blood Aborigines before 1961.

The State's rate of population increase was slower than the Australian rate in every decade from 1881-90 to 1931-40. In the next two decades the steep rise in the rate of net migration enabled an above-average growth rate to be achieved, and this was maintained until 1966. Since 1966 however, the State's growth rate has generally been below the Australian rate.

Estimates of the population of the State for the last six years are given in the following table. The total increase for each year and the rate of growth are also shown.

**Estimated Population at 31 December, South Australia**

Year	Males	Females	Persons	Total Increase for year	Rate of Growth
					Per cent
1971.....	597 100	598 300	1 195 400	19 100	1.63
1972.....	603 800	605 700	1 209 500	14 100	1.18
1973.....	612 800	614 500	1 227 200	17 700	1.46
1974.....	625 700	627 900	1 253 600	26 300	2.15
1975.....	628 000	629 300	1 257 300	3 700	0.30
1976.....	633 400	635 300	1 268 800	11 500	0.91

Intercensal estimates of population are derived by adding to the population ascertained at the Census the recorded natural increase and the allocation to the State of portion of the net gain to Australia by overseas migration; gains and corresponding losses that result from movement between South Australia and other States are also taken into account, in so far as they are recorded as transfers of residence under family allowance procedures or Commonwealth Government electoral procedures, supplemented by results of any special count or sample survey. The estimates above have been revised according to results of the 1971 and 1976 Censuses adjusted for underenumeration.

The estimated mean population for South Australia is calculated for the years ended 30 June and 31 December. Estimates for the last six years are shown in the next table.

**Estimated Mean Population, South Australia<sup>(a)</sup>**

Year	Year Ended 30 June			Year Ended 31 December		
	Males	Females	Persons	Males	Females	Persons
1972.....	596 700	598 000	1 194 700	600 400	601 800	1 202 200
1973.....	604 100	605 700	1 209 900	608 300	610 000	1 218 300
1974.....	612 600	614 200	1 226 700	617 000	618 600	1 235 600
1975.....	621 600	623 500	1 245 100	625 400	627 400	1 252 800
1976.....	627 600	629 000	1 256 500	630 200	631 700	1 261 900
1977.....	633 500	635 300	1 268 800			

(a) Figures have been adjusted for underenumeration.

### EARLY HISTORY OF SETTLEMENT

A detailed description of early settlement in South Australia together with information on the 1851 Census was included on pages 116-7 of the *South Australian Year Book 1970*.

### DISTRIBUTION OF POPULATION

#### Urban Centres

Commencing with the 1966 Census, a boundary has been drawn at each Census around each population cluster of 1 000 or more persons (or around known holiday resorts of less population if they contain 250 or more dwellings of which at least 100 are occupied). These clusters are named urban centres and the population and dwellings enumerated therein are classified as urban for statistical purposes.

When delimiting urban centres of less than 25 000 population the urban centres are determined subjectively (by inspection of aerial photographs, by field inspection and/or by consideration of any other information that is available). All continuous urban growth is included, together with close but non-contiguous development which could be regarded as part of the centre. For urban centres with 25 000 or more population the basic criterion used is *population density*. The geographic units classified according to the density criterion are collection districts, the smallest units available, which must have a density of at least 200 persons per square kilometre for inclusion in the urban centre. A gap in urban development of less than three kilometres (by the shortest rail or road distance) is ignored while urban areas three or more kilometres apart are treated as separate even if the gap comprises mainly reserved land or a natural barrier. Particular rules apply to contiguous areas with special functions such as airports, sporting areas and industrial areas which do not meet the density criterion.

The boundary of such an urban centre is thus a moving one which reflects the process of urbanisation. The use of objective criteria enables valid comparisons to be made between one urban centre and another, and between the population for an urban centre at one census with the population at succeeding censuses.

**Population in Urban Adelaide**

At the 1966 Census, Urban Adelaide contained nearly all the metropolitan area as defined at the 1961 Census, and, in addition, included the City of Elizabeth and large portions of the Cities of Salisbury and Tea Tree Gully, and small parts of Munno Para and East Torrens District Councils. Results of the 1971 Census showed that Urban Adelaide had extended to encompass the whole of the urban area of Reynella-Port Noarlunga as well as fringe development particularly in northern suburbs (see map on page 115).

Urban Adelaide as defined for the 1976 Census comprised 19 complete local government areas and part of each of seven others.

Over the past decade there has been a considerable fall in the population of the City of Adelaide, and lesser falls in all of the older municipalities close to the city, namely Prospect, Hindmarsh, Thebarton, Unley, Kensington and Norwood, and St Peters. The greatest proportionate increases in population have occurred in the local government areas of Munno Para and Salisbury (generally north of the city); Campbelltown and Tea Tree Gully (north-east); Meadows, Mitcham and Noarlunga (south-west). Recently, development at West Lakes has brought about a substantial increase in Woodville's population.

Although figures for Urban Adelaide, defined according to the density criteria, are not available for the 1947 and 1954 Censuses, there appears to have been a continual increase in the proportion of the total State population residing in Urban Adelaide until the 1971 Census. At the 1961 Census, the population of Urban Adelaide defined according to the density criteria is estimated to have been 580 449 persons or 59.9 per cent of the total State population and this figure had increased to 728 279 (66 per cent) at the 1966 Census.

In 1971, the amalgamation of Urban Adelaide and Urban Reynella-Port Noarlunga, together with the inclusion of further peripheral development, resulted in an increase to 809 482 persons (69 per cent of the State population). Results from the 1976 Census indicate that there has been very little alteration to the population distribution since 1971.

**Urban and Rural Population, South Australia<sup>(a)</sup>**  
**Censuses 1921 to 1976**

Census	Urban				Rural		Total (Including Migratory)
	Adelaide (b)		Other (c)		Number	Per Cent	
	Number	Per Cent	Number	Per Cent			
1921.....	255 375	51.57	41 637	8.41	195 054	39.39	495 160
1933.....	312 619	53.81	51 456	8.86	214 762	36.97	580 949
1947.....	382 454	59.20	65 911	10.20	196 007	30.34	646 073
1954.....	483 508	60.66	110 107	13.82	201 133	25.23	797 094
1961.....	587 957	60.66	177 380	18.30	200 065	20.64	969 340
1966.....	(b)728 279	66.51	174 964	15.98	190 167	17.37	1 094 984
1971 (d).....	809 482	68.97	183 187	15.61	179 148	15.26	1 173 707
1976 (d).....	857 196	68.85	198 777	15.97	187 546	15.07	1 244 756

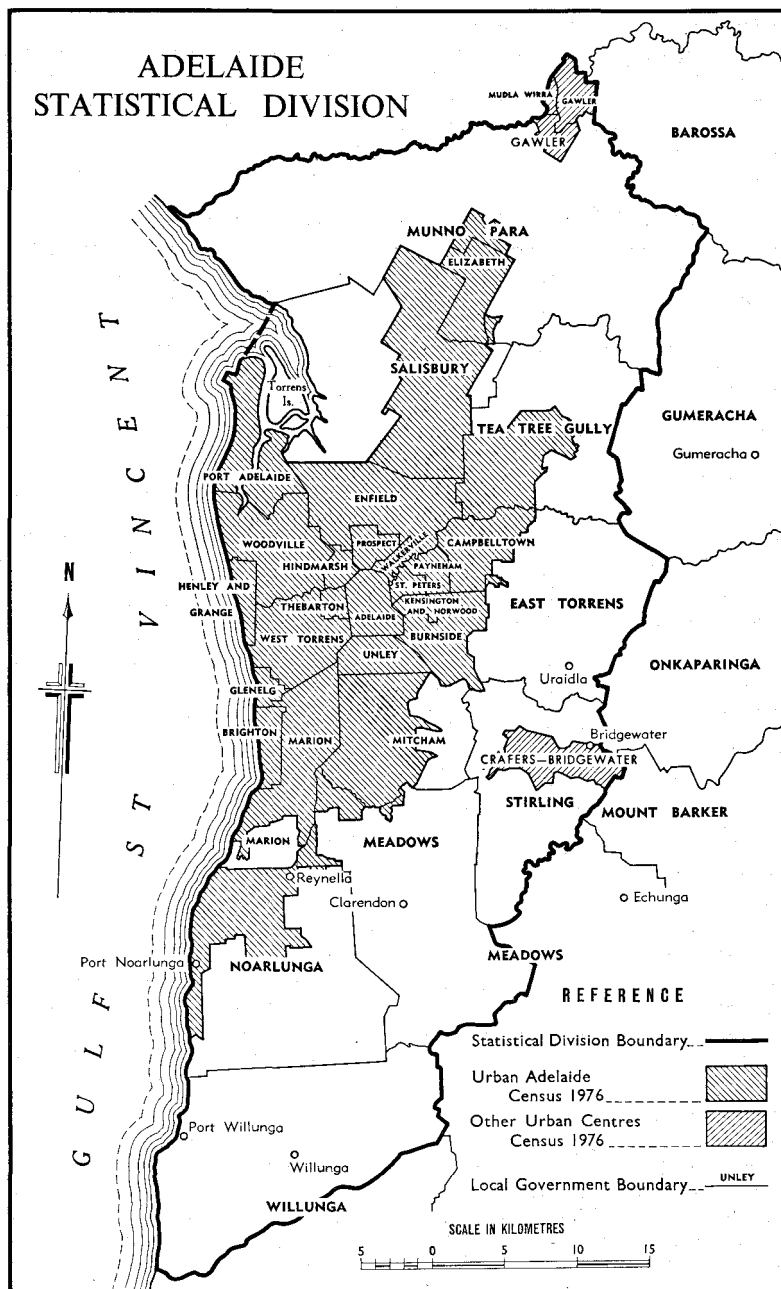
(a) Excludes full-blood Aborigines before the 1966 Census.

(b) See text for definition of Urban Adelaide.

(c) 'Other Urban' up to the 1947 Census comprised all municipalities outside Urban Adelaide. For the 1954 and 1961 Censuses non-municipal towns of 1 000 or more persons were also included, but in 1961 municipalities of less than 1 000 persons were excluded. The 1966, 1971 and 1976 figures comprise clusters of 1 000 or more persons and a small number of holiday resorts which are regarded as urban on a dwelling density basis.

(d) The figures are not adjusted for census underenumeration.





**Population in Other Urban Centres**

Only a very small proportion (16 per cent) of South Australia's population is located in urban centres outside of the capital city compared with the three eastern States, New South Wales, Victoria and Queensland. Whereas, in each of the eastern States, there are at least four centres outside the capital city with a population in excess of 20 000, Whyalla with a population of 33 426 at the Census of 30 June 1976 is the only such centre in South Australia.

**Population of Urban Centres: South Australia, Censuses 1971 and 1976<sup>(a)</sup>**

Urban Centre	Census at 30 June		Urban Centre	Census at 30 June	
	1971	1976		1971	1976
Adelaide .....	809 482	857 196	Moonta .....	1 570	1 751
Angaston .....	1 813	1 734	Mount Barker ..	2 475	3 204
Balaklava .....	1 114	1 237	Mount Gambier	17 934	19 292
Barmera .....	1 687	1 946	Murray Bridge	7 441	8 740
Berri .....	2 713	2 890	Naracoorte .....	4 429	4 571
Bordertown .....	1 979	1 983	Nuriootpa .....	2 468	2 808
Burra .....	1 276	1 201	Penola .....	1 293	1 254
Ceduna .....	2 070	2 327	Peterborough ..	3 023	2 760
Clare .....	2 099	2 260	Port Augusta ..	12 224	13 092
Coober Pedy .....	1 394	1 903	Port Broughton	508	654
Crafers-Bridgewater	5 308	6 600	Port Elliot .....	566	768
Crystal Brook .....	1 181	1 410	Port Lincoln ...	9 158	10 272
Gawler .....	6 959	8 596	Port Macdonnell	585	712
Goolwa .....	681	1 148	Port Pirie .....	15 456	15 005
Jamestown .....	1 331	1 325	Quorn .....	1 008	1 048
Kadina .....	2 828	2 849	Renmark .....	3 278	3 371
Kapunda .....	1 261	1 362	Strathalbyn .....	1 535	1 701
Keith .....	1 212	1 191	Streaky Bay .....	914	1 008
Kingscote .....	1 011	1 121	Tailem Bend ...	1 982	1 999
Kingston (SE) .....	1 173	1 250	Tanunda .....	1 939	2 254
Lobethal .....	1 377	1 422	Victor Harbor ..	3 527	4 279
Loxton .....	2 663	2 786	Waikerie .....	1 252	1 611
Maitland .....	1 020	1 017	Walleroo .....	2 097	2 045
Mannum .....	2 043	2 137	Whyalla .....	32 109	33 426
Millicent .....	5 075	5 471	Woomera .....	(b)4 082	2 958

(a) See text for definition of 'urban'. Population figures have not been adjusted for census underenumeration.

(b) Included Maralinga in 1971.

Between 1971 and 1976 most urban centres beyond the Adelaide Statistical Division experienced population growth; this was most evident in the River Murray towns, the Lower South East and the West Coast. The 'Iron Triangle' was somewhat of an enigma in that Whyalla and Port Augusta continued to expand, whereas Port Pirie's population declined.

**Statistical Divisions**

Around Urban Adelaide a further boundary has been defined. This boundary circumscribes the area in close economic and social contact with the urban centre, and which contains the anticipated urban development of the city for a period of at least twenty to thirty years. This boundary defines the Adelaide Statistical Division (see map on page 115). In addition to Urban Adelaide there are two urban centres within the Adelaide Statistical Division, Urban Gawler and Urban Crafers-Bridgewater.

The six further statistical divisions which have been delineated in South Australia are mainly amalgamations of local government areas. They represent closely allied and meaningful areas of production and community interest. Factors taken into account when determining their boundaries were differential living zones, patterns of retail shopping, location and nature of industry, transport routes, provincial newspaper circulation, coverage of provincial radio and television stations, spheres of activity of cultural groups and sporting associations.

The population of the Adelaide Statistical Division at the time of each of the last four censuses is shown in the following table.

Population at 30 June, Adelaide Statistical Division<sup>(a)</sup>

Local Government Area	Census		Estimates	
	1961 (b)	1966	1971	1976
Adelaide (C) .....	23 051	18 619	16 500	13 900
Brighton (C) .....	20 337	22 638	22 900	21 800
Burnside (C) .....	36 266	38 776	39 900	39 300
Campbelltown (C) .....	20 945	32 083	38 100	41 500
East Torrens (DC) .....	3 664	3 822	4 300	4 900
Elizabeth (C) .....	(c)	32 956	33 600	34 000
Enfield (C) .....	72 427	80 336	(d) 78 100	74 400
Gawler (M) .....	5 639	5 703	5 600	6 200
Glennelg (C) .....	14 492	14 763	15 500	14 700
Henley and Grange (C) .....	11 680	14 146	16 400	16 900
Hindmarsh (M) .....	12 914	11 367	10 400	8 800
Kensington and Norwood (C) .....	13 476	11 943	11 200	9 800
Marion (C) .....	58 464	66 984	68 600	68 700
Meadows (DC) (part) .....	2 242	2 824	5 200	12 400
Mitcham (C) .....	46 793	52 889	58 000	60 300
Mudla Wirra (DC) (part) .....	111	155	200	500
Munno Para (DC) .....	3 154	14 279	20 400	22 700
Noarlunga (C) .....	5 492	14 214	28 700	47 900
Payneham (C) .....	14 930	16 847	17 800	17 900
Port Adelaide (C) .....	38 923	39 846	39 300	36 500
Prospect (C) .....	22 184	21 415	21 100	19 700
Salisbury (C) .....	35 715	35 766	56 600	78 100
Stirling (DC) .....	7 075	7 552	8 500	11 100
St Peters (M) .....	11 727	11 339	10 800	9 400
Tea Tree Gully (C) .....	5 887	21 315	36 900	56 500
Thebarton (M) .....	12 884	12 303	11 900	10 400
Unley (C) .....	40 280	39 735	40 300	37 500
Walkerville (M) .....	4 464	4 593	(d) 7 300	7 300
West Torrens (C) .....	40 681	46 233	50 500	48 600
Willunga (DC) (part) .....	2 210	2 190	2 700	4 200
Woodville (C) .....	71 039	73 930	73 400	76 200
<b>Total</b> .....	<b>659 146</b>	<b>771 561</b>	<b>850 700</b>	<b>912 100</b>

(a) Figures for 1971 and 1976 have been adjusted for Census underenumeration. Hence, figures for 1971 and 1976 are not strictly comparable with those for previous years. (b) Excludes full-blood Aborigines. (c) Elizabeth (C) was constituted out of Salisbury (C) in July 1964. (d) Comparisons with previous censuses is affected by transfer in July 1970 of the suburb of Vale Park (approximately 2 200 persons) from Enfield (C) to Walkerville (M).

(C) Municipality with city status (M) Municipality (DC) District Council

The estimated population of statistical divisions and subdivisions at 30 June 1971 and 1976 are shown in the following table.

**Estimated Population of Statistical Divisions and Subdivisions, South Australia<sup>(a)</sup>**

Statistical Division and Subdivision	30 June	
	1971	1976
<b>Adelaide:</b>		
Para .....	91 000	108 400
North Eastern .....	119 900	145 200
Western .....	222 500	216 100
Eastern .....	215 700	212 300
Southern .....	201 600	230 000
<b>Total Adelaide</b> .....	<b>850 700</b>	<b>912 100</b>
<b>Outer Adelaide:</b>		
Barossa .....	22 650	25 400
Kangaroo Island .....	3 200	3 300
Onkaparinga .....	11 300	12 950
Fleurieu .....	15 500	17 950
<b>Total Outer Adelaide</b> .....	<b>52 600</b>	<b>59 600</b>
<b>Yorke and Lower North:</b>		
Yorke .....	20 600	20 950
Lower North .....	19 200	19 050
<b>Total Yorke and Lower North</b> .....	<b>39 750</b>	<b>40 000</b>
<b>Murray Lands:</b>		
Riverland .....	29 300	30 500
Murray Mallee .....	28 400	29 750
<b>Total Murray Lands</b> .....	<b>57 650</b>	<b>60 250</b>
<b>South East:</b>		
Upper South East .....	18 750	18 450
Lower South East .....	37 750	40 100
<b>Total South East</b> .....	<b>56 450</b>	<b>58 550</b>
<b>Eyre:</b>		
Lincoln .....	24 700	26 200
West Coast .....	6 200	6 700
<b>Total Eyre</b> .....	<b>30 900</b>	<b>32 900</b>
<b>Northern:</b>		
Whyalla .....	33 850	35 550
Pirie .....	33 050	32 250
Flinders Ranges .....	18 500	19 800
Far North .....	9 900	9 150
<b>Total Northern</b> .....	<b>95 300</b>	<b>96 800</b>
<b>Total State (including migratory)</b> .....	<b>1 185 300</b>	<b>1 261 600</b>

(a) The figures have been adjusted for census underenumeration.

### Statistical Districts

At the 1976 Census, around each urban centre of at least 25 000 persons, a further boundary (the statistical district boundary) was defined to contain the anticipated growth of the urban centre for a period of at least 20 years. This fixed boundary (as distinct from the urban boundary which is continuously moving) delimits an area which for general

statistical purposes is free from the practical problems imposed by a moving boundary, but which nevertheless represents the town or city in a wider sense. In selected cases, statistical district boundaries were delineated around urban centres below 25 000 persons where existing local government area boundaries were clearly inadequate in indicating the extent of urban development.

The estimated population of statistical districts at 30 June 1971 and 1976 are shown in the following table.

**Estimated Population at 30 June, Statistical Districts, South Australia<sup>(a)</sup>**

Statistical District	At 30 June		Percentage Increase
	1971	1976	1971-1976
			Per cent
Mount Gambier .....	18 300	19 800	8.1
Murray Bridge .....	8 550	10 150	18.8
Port Augusta .....	13 200	14 500	9.9
Port Lincoln .....	9 500	10 400	9.8
Port Pirie .....	15 650	15 250	-2.5
Whyalla .....	32 550	34 400	5.8

(a) Population figures have been adjusted for census underenumeration.

### PROJECTIONS OF THE POPULATION

This section contains summary results of a set of projections of the population of South Australia for the years 1976 to 2006. They were prepared in conjunction with the State Government using as a base a provisional estimate of the age distribution at 30 June 1976, based on the results of the 1976 Census, adjusted for underenumeration.

The projections were made using the component method *i.e.* a base population classified by sex and age is brought forward year by year by applying assumptions about future trends in fertility, mortality and the characteristics of interstate, intrastate and overseas migration. In the projection model used, three levels of migration (based on a study of past trends and future possibilities) were used representing a high, medium and low level of migration—only the figures incorporating the 'medium' level are used in the following tables.

The assumptions employed in the latest set of projections are given below.

#### Fertility

The age-specific fertility rates were held constant throughout the projection period consistent with achievement of a net reproduction rate equal to 0.919. A masculinity rate of 1.055 was applied.

#### Mortality

The South Australian average age-specific mortality rates were derived from the provisional 1976 Census figures and were held constant over the whole projection period.

#### Migration

In net terms, the projections for the State provide for an intake of 3 000 interstate and overseas migrants as from 1977. This 'medium' level consists of a net overseas migration intake of 4 000 persons per annum and a net outflow of 1 000 persons per annum interstate. The age-sex composition used is applicable to the relevant migration data during the period 1971-75 for interstate migration and 1975-76 for overseas migration.

Over the thirty-year projection period it is expected that the rate of population growth for the State will continue to decline. With a net reproduction rate of less than one and limited migration, the age structure of the State's population will change quite significantly e.g. the percentage of population aged less than five years will decline from 8.1 per cent to 6.5 per cent over the period while those aged 65 and over will increase from 9.1 per cent to 11.7 per cent.

#### Population Projections, South Australia

At 30 June	Males	Females	Persons	Average Annual Rate of Increase
		Number		Per cent
1976.....	629 900	631 700	1 261 600	—
1981.....	659 700	665 700	1 325 400	0.99
1986.....	690 300	701 000	1 391 300	0.98
1991.....	718 600	734 500	1 453 100	0.87
1996.....	742 700	763 700	1 506 400	0.72
2001.....	762 000	787 900	1 549 900	0.57
2006.....	778 000	808 400	1 586 400	0.47

#### Projected Age Distribution, South Australia

Age Group (Years)	1976	1981	1986	1991	1996	2001	2006
0-4 .....	102 600	101 000	108 600	110 600	108 200	104 200	102 300
5-9 .....	113 500	103 500	101 800	109 400	111 400	109 100	105 000
10-14 .....	117 700	114 100	104 100	102 400	110 000	112 000	109 600
15-19 .....	119 400	117 700	114 100	104 000	102 400	110 000	111 900
20-24 .....	106 600	119 100	117 400	113 800	103 900	102 200	109 800
25-29 .....	104 400	108 700	121 100	119 400	115 900	105 900	104 300
30-34 .....	84 300	107 400	111 600	124 000	122 300	118 800	108 900
35-39 .....	72 700	85 400	108 400	112 600	124 900	123 200	119 700
40-44 .....	65 600	72 500	85 100	107 900	112 100	124 300	122 600
45-49 .....	73 200	64 700	71 500	83 900	106 300	110 500	122 500
50-54 .....	72 100	71 600	63 400	70 000	82 100	103 900	108 000
55-59 .....	60 500	69 700	69 200	61 400	67 800	79 400	100 300
60-64 .....	54 600	57 400	66 000	65 400	58 100	64 100	75 000
65-69 .....	42 200	49 900	52 400	60 100	59 500	53 100	58 500
70-74 .....	30 200	36 400	42 900	45 100	51 500	51 000	45 600
75 and over.....	42 000	46 500	53 800	63 000	70 000	78 300	82 300
Total .....	1 261 600	1 325 400	1 391 300	1 453 100	1 506 400	1 549 900	1 586 400

### 5.3 BIRTHS AND DEATHS

Compulsory registration of births and deaths was first provided in South Australia in 1842 when an Act 'for registering births, deaths and marriages in the Province of South Australia' was passed. Current legislation is contained in the Births, Deaths and Marriages Registration Act, 1966-1975 which came into operation on 1 January 1968 and the administration of the Act is the responsibility of the Principal Registrar of Births, Deaths and Marriages. For registration purposes the State is divided into twenty-two registration districts each of which has a registry office in the charge of a District Registrar.

The Principal Registrar maintains a register of all live births and of all deaths registered in the State and each District Registrar maintains, in a register, duplicate copies of the registrations of births and deaths which occurred in the district under his jurisdiction. Up to the end of 1967 separate registers were kept of still births, which were not included in the registration or statistics of either live births or of deaths. Compulsory registration of still births was introduced in South Australia in 1937.

The current legislation does not require the Principal Registrar to maintain a register of still births, but it provides for a 'Medical Certificate of Cause of Perinatal Death' to be filled in and forwarded to the Principal Registrar by the attending medical practitioner in respect of a 'child not born alive of at least twenty weeks gestation or four hundred grams weight'. The 'perinatal' certificates are also required from attending medical practitioners for children dying within twenty-eight days of birth.

The birth of each live-born child is required to be registered by a parent within sixty days of the date of birth. Registration of a live birth after the expiration of sixty days following the date of birth requires also the payment of a fee and a declaration in a form prescribed by the Act.

A death is required to be registered within fourteen days of the date of death by the occupier of the building or place in which the death occurred. Special provisions and penalties exist for the late registration of a death. A body may not be buried unless the undertaker is in possession of a 'Notice of signing of Medical Certificate of Cause of Death' signed by a medical practitioner or of an order by a coroner for burial, and the undertaker is required within seven days of the disposal of the body to notify the Principal Registrar of such disposal.

Births and deaths of Aborigines when registered are incorporated in registers, but to the end of 1965 were excluded from statistics where there was definite indication that they were of full-blood. Statistics of birth and deaths for 1966 and subsequent years cover all registrations.

In accordance with international practice, statistics for a period are on the basis of the births and deaths which were registered during that period. However, numbers registered in a period usually differ from the number of occurrences in the same period and, mainly because of the longer period allowed for registration, such variations generally are more apparent in birth than in death figures.

### BIRTHS

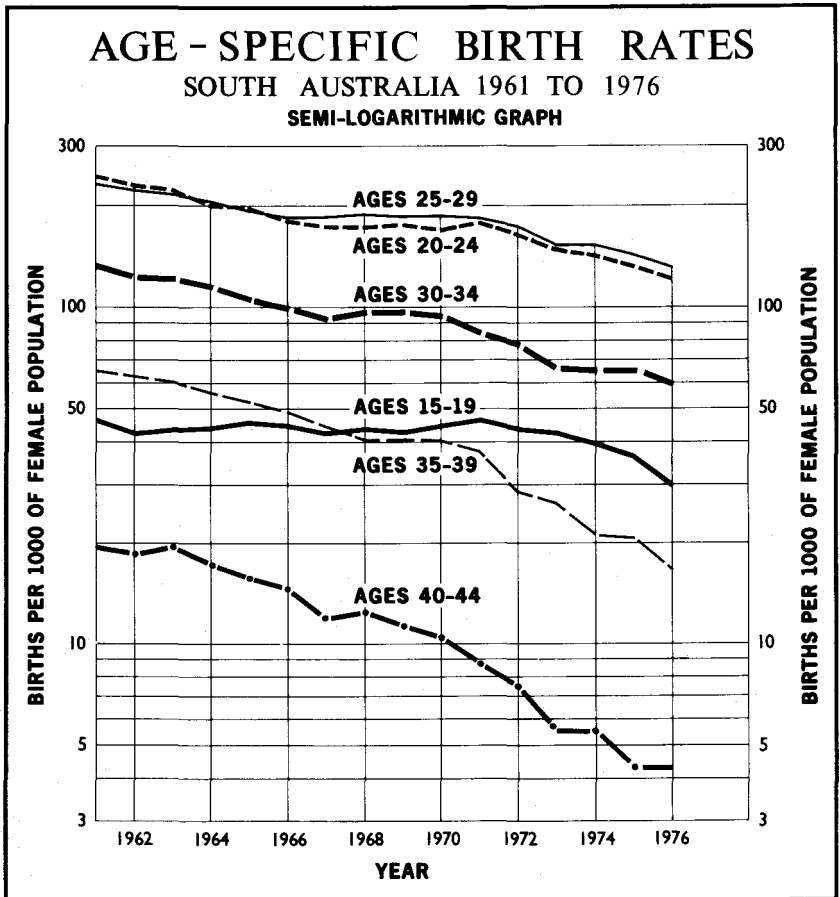
The South Australian birth rate per thousand of mean population during 1976 was 15.02 compared with the Australian rate of 16.37 per thousand. This was also the lowest rate recorded by any of the Australian States or Territories for the same period. Although there has been no lower post-war rate recorded, rates for the years 1932, 1934 and 1935 were below this level. The lowest ever recorded rate of 14.14 was established in 1935.

#### Live Births Occurred and Registered, South Australia

Year	Total Live Births Occurred(a)	Live Births Registered				Masculinity (c)
		Total	Rate (b)	Males	Females	
1972.....	21 789	21 844	18.17	11 299	10 545	107.15
1973.....	20 192	20 407	16.75	10 475	9 932	105.47
1974.....	19 944	20 181	16.33	10 489	9 692	108.22
1975.....	19 562	19 986	15.95	10 212	9 774	104.48
1976.....	18 178	18 947	15.02	9 838	9 109	108.00

(a) Figures are subject to the addition of late registrations, particularly to 1976.

(b) Number per 1 000 of mean population. (c) Number of male births per 100 female births.



#### Age-specific Birth Rates

One significant feature of age-specific birth rates as shown in the following table is that whereas in 1961, females in the 20-24 years age group accounted for the highest number of births this can now be attributed to those in the 25-29 years age group. Also, a general decline in the fertility of women of all ages is evident, and this is particularly marked in the older age groups. In accordance with this, total fertility has decreased, reflecting the tendency toward smaller families.



Age-specific Birth Rates and Total Fertility, South Australia<sup>(a)</sup>

Year	Age Group (Years)							Total Fertility
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
	Annual Rates							
1947(b) . . . . .	30.30	174.83	202.30	136.20	77.07	22.57	1.62	3.22
1954(b) . . . . .	41.85	212.75	206.60	123.19	65.83	26.76	0.84	3.39
1961(b) . . . . .	46.66	246.12	235.33	135.45	65.04	19.54	1.48	3.75
1966(b) . . . . .	44.56	178.73	181.58	99.31	49.30	14.62	0.75	2.84
1971(b) . . . . .	46.63	178.04	184.68	84.26	37.45	8.72	0.55	2.70
1972 . . . . .	43.98	164.26	174.82	78.12	28.60	7.53	0.52	2.49
1973 . . . . .	42.93	149.52	155.23	66.06	26.47	5.45	0.58	2.23
1974 . . . . .	39.97	142.17	152.17	65.70	21.12	5.51	0.22	2.13
1975 . . . . .	36.07	136.42	149.68	64.38	20.34	4.34	0.34	2.06
1976(b) . . . . .	29.86	126.98	139.48	59.54	17.34	4.30	0.20	1.89

(a) Number of live births per 1 000 of female population in each age group. Excludes particulars of full-blood Aborigines before 1966. (b) Census year.

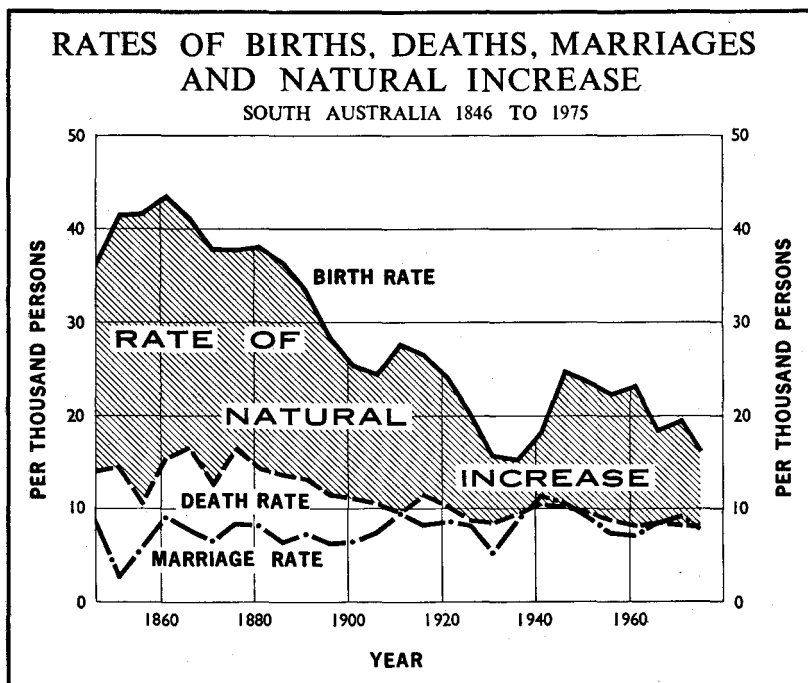
## Gross and Net Reproduction Rates

The gross reproduction rate is an indication of the number of live females that can be expected to be born to a woman through her child-bearing period. The net reproduction rate, which is a measure of the degree to which the population can replace itself, is derived from the gross reproduction rate by taking into account the females who fail to survive to the end of their child-bearing period. The following table indicates that the net reproduction rate has been steadily decreasing, reaching a level of 0.889 in 1976. This level is lower than the point at which women produce only one female child to take their place in the reproductive cycle and, excluding the impact of migration, if this trend continues, zero population growth will ultimately be reached. It should be realised, however, that these figures are not a forecast of what can be anticipated but only a hypothetical projection of what will happen if the given conditions upon which they have been based continue to apply.

Gross and Net Reproduction Rates, South Australia<sup>(a)</sup>

Year	Gross Reproduction Rate	Net Reproduction Rate	
		Rate	Mortality Experience on which Rate is Based
1961(b) . . . . .	1.841	1.781	1960 to 1962
1966(b) . . . . .	1.368	1.323	
1967 . . . . .	1.342	1.304	1965 to 1967
1968 . . . . .	1.337	1.296	
1969 . . . . .	1.351	1.310	
1970 . . . . .	1.346	1.305	1970 to 1972
1971(b) . . . . .	1.315	1.277	
1972 . . . . .	1.201	1.167	
1973 . . . . .	1.086	1.055	
1974 . . . . .	1.026	0.997	
1975 . . . . .	1.007	0.978	
1976(b) . . . . .	0.908	0.889	

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Census year.



### Ex-nuptial Births and Legitimations

Since 1960 there has been a marked increase in the number and rate of ex-nuptial births. For the previous forty years, the rate remained relatively steady at about three per hundred live births, but in recent years the rate has increased sharply, reaching a record level of 9.72 per hundred live births in 1975. In 1976 the rate fell to 9.44 per hundred live births, although this constitutes the second highest rate yet recorded.

The legitimation of an ex-nuptial child upon the subsequent marriage of the parents which was first provided for in South Australia by the Legitimation Act, 1898, the provisions of which were later incorporated in the Births and Deaths Registration Act, was possible only if there was no legal impediment to the marriage of the parents at the time of the birth of the child.

The *Marriage Act* 1961, which came into operation on 1 September 1963, provides for the legitimation of a child upon the subsequent marriage of the parents whether or not there was a legal impediment to the marriage at the time of the birth of the child. Legitimations under this Act take place whether or not the child was living at the time of marriage, and the child is considered legitimate from the date of birth or, in the case of a child born before 1 September 1963, at that date.

## Ex-nuptial Live Births and Legitimations, South Australia

Year	Ex-nuptial Births			Rate per 100 Live Births	Legitimations
	Males	Females	Total		
1972.....	931	872	1 803	8.25	296
1973.....	921	879	1 800	8.82	280
1974.....	988	891	1 879	9.31	305
1975.....	1 025	918	1 943	9.72	326
1976.....	906	883	1 789	9.44	350

## Confinements and Live Births

In the table below confinements in each of the years 1973 to 1976 have been shown in relation to age group of the mother and nuptiality.

## Confinements: Age Group of Mother and Nuptiality, South Australia

Age Group	Number of Confinements (a)				Percentage of Total in each Category			
	1973	1974	1975	1976	1973	1974	1975	1976
NUPTIAL CONFINEMENTS								
10-14.....	—	—	—	—	—	—	—	—
15-19.....	1 502	1 419	1 274	1 038	8.1	7.8	7.1	6.1
20-24.....	6 923	6 635	6 469	6 062	37.6	36.6	36.2	35.7
25-29.....	6 766	6 927	6 991	6 885	36.7	38.2	39.1	40.5
30-34.....	2 240	2 313	2 357	2 313	12.2	12.8	13.2	13.6
35-39.....	808	652	645	572	4.4	3.6	3.6	3.4
40-44.....	173	167	125	122	0.9	0.9	0.7	0.7
45 and over.....	21	6	11	6	0.1	0.0	0.1	0.0
Not stated.....	1	—	—	2	0.0	—	—	0.0
Total.....	18 434	18 119	17 872	17 000	100.0	100.0	100.0	100.0
EX-NUPTIAL CONFINEMENTS								
10-14.....	14	14	20	15	0.8	0.8	1.0	0.8
15-19.....	813	798	777	700	45.6	42.8	40.4	39.4
20-24.....	520	557	601	587	29.2	29.9	31.2	33.0
25-29.....	239	300	307	288	13.4	16.1	15.9	16.2
30-34.....	129	120	144	125	7.2	6.4	7.5	7.0
35-39.....	55	53	57	48	3.1	2.8	2.9	2.7
40-44.....	11	16	17	14	0.6	0.9	0.9	0.8
45 and over.....	—	2	1	1	—	0.1	0.1	0.1
Not stated.....	2	3	1	—	0.1	0.2	0.1	—
Total.....	1 783	1 863	1 925	1 778	100.0	100.0	100.0	100.0

(a) Includes only those confinements which resulted in one or more live births.

The next table shows the number of confinements and live births for 1975 and 1976 classified separately for single births and multiple births in which at least one issue was live-born. Multiple births registered in South Australia during 1976 comprised 168 cases of twins and 1 case of triplets, representing an average of 9.0 multiple confinements per 1 000 confinements.

### Confinements and Live Births: Class of Birth, South Australia

Particulars	1975				1976			
	Confinements (a)	Live Births			Confinements (a)	Live Births		
		Male	Female	Total		Male	Female	Total
<b>Nuptial:</b>								
Single births .....	17 704	9 024	8 680	17 704	16 842	8 779	8 063	16 842
Twins .....	165	159	171	330	157	153	160	313
Triplets .....	3	4	5	9	1	—	3	3
<b>Total nuptial .....</b>	<b>17 872</b>	<b>9 187</b>	<b>8 856</b>	<b>18 043</b>	<b>17 000</b>	<b>8 932</b>	<b>8 226</b>	<b>17 158</b>
<b>Ex-nuptial:</b>								
Single births .....	1 907	1 009	898	1 907	1 767	896	871	1 767
Twins .....	18	16	20	36	11	10	12	22
Triplets .....	—	—	—	—	—	—	—	—
<b>Total ex-nuptial .....</b>	<b>1 925</b>	<b>1 025</b>	<b>918</b>	<b>1 943</b>	<b>1 778</b>	<b>906</b>	<b>883</b>	<b>1 789</b>
<b>Total .....</b>	<b>19 797</b>	<b>10 212</b>	<b>9 774</b>	<b>19 986</b>	<b>18 778</b>	<b>9 838</b>	<b>9 109</b>	<b>18 947</b>

(a) Includes only those confinements which resulted in one or more live births.

Nuptial confinements classified according to the relative age groups of the parents, and ex-nuptial confinements classified to the age group of the mother are shown for 1976 in the following table.

### Confinements: Relative Ages of Parents, South Australia, 1976<sup>(a)</sup>

Age Group of Father (Nuptial Births) (Years)	Age Group of Mother (Years)							Total (b)
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	
Under 20 .....	191	39	1	—	—	—	—	231
20-24 .....	656	2 402	308	13	1	—	—	3 380
25-29 .....	163	3 057	3 956	330	27	1	—	7 534
30-34 .....	24	453	2 117	1 172	79	7	—	3 852
35-39 .....	2	85	393	593	222	20	1	1 316
40-44 .....	1	17	75	150	162	46	2	453
45-49 .....	—	5	21	34	60	37	3	160
50 and over .....	—	2	8	14	20	11	—	55
Not stated .....	1	2	6	7	1	—	2	19
<b>Mothers:</b>								
Married .....	1 038	6 062	6 885	2 313	572	122	8	17 000
Unmarried .....	715	587	288	125	48	14	1	1 778
<b>Total .....</b>	<b>1 753</b>	<b>6 649</b>	<b>7 173</b>	<b>2 438</b>	<b>620</b>	<b>136</b>	<b>9</b>	<b>18 778</b>

(a) Includes only those confinements which resulted in one or more live births.

(b) Includes not stated.

Between 1967 and 1976 the proportion of nuptial first live births rose from 37.5 to 41.6 per cent of total nuptial births registered. Over the same period the number of fourth or subsequent children born into existing marriages declined from 3 045 to 1 039, a fall from 16.02 to 6.06 per cent of total nuptial births registered. These figures reflect the decline in the average number of children born into the family unit.

The table which follows shows the number of confinements classified by duration of marriage and previous issue. Previous issue is the number of live-born children of the existing marriage born before the current confinement.

**Nuptial Confinements: Duration of Marriage and Previous Issue of Mother  
South Australia, 1976**

Duration of Marriage	Number of Confinements (a)	Previous Issue of Marriage						6 and over
		0	1	2	3	4	5	
Under 1 year	1 485	1 427	51	5	—	1	—	—
1 year	1 748	1 483	256	7	—	1	—	—
2 years	2 231	1 323	874	30	4	—	—	—
3 years	2 422	1 066	1 222	123	9	2	—	—
4 years	2 343	808	1 295	222	17	1	—	—
5 years	1 944	463	1 066	370	38	5	—	—
6 years	1 465	246	729	409	70	8	1	1
7 years	1 023	137	417	374	82	9	1	—
8 years	665	67	237	256	88	11	—	2
9 years	457	32	133	181	75	27	7	—
10 years	360	28	93	135	81	16	4	3
11 years	214	7	29	83	62	21	6	3
12 years	163	8	22	59	46	13	8	6
13 years	120	11	13	34	34	11	8	9
14 years	90	11	8	17	32	12	3	7
15 years and over	265	14	13	45	71	44	42	36
Not stated	5	2	1	1	1	—	—	—
<b>Total</b>	<b>17 000</b>	<b>7 133</b>	<b>6 459</b>	<b>2 351</b>	<b>710</b>	<b>182</b>	<b>80</b>	<b>67</b>

(a) Includes previous issue not stated.

**Nuptial First Live Births: Duration of Marriage of Parents  
South Australia**

Duration of Marriage	Nuptial First Live Births				Percentage of Total			
	1973	1974	1975	1976	1973	1974	1975	1976
Under 5 months	611	535	500	471	8.05	7.01	6.57	6.60
5 months	463	399	308	212	6.10	5.23	4.05	2.97
6 months	332	317	243	178	4.37	4.16	3.20	2.50
7 months	119	119	98	77	1.57	1.56	1.29	1.08
8 months	119	116	92	91	1.57	1.52	1.21	1.28
9 months	161	161	141	135	2.12	2.11	1.85	1.89
10 months	165	145	160	135	2.17	1.90	2.10	1.89
11 months	174	186	149	128	2.29	2.44	1.96	1.79
<b>Total under 1 year</b>	<b>2 144</b>	<b>1 978</b>	<b>1 691</b>	<b>1 427</b>	<b>28.24</b>	<b>25.93</b>	<b>22.23</b>	<b>20.00</b>
1 year	1 823	1 679	1 750	1 483	24.01	22.01	23.01	20.79
2 years	1 430	1 467	1 427	1 323	18.84	19.23	18.76	18.55
3 years	1 005	1 061	1 151	1 066	13.24	13.91	15.13	14.94
4 years	489	663	683	808	6.44	8.69	8.98	11.33
5 years	273	335	413	463	3.60	4.39	5.43	6.49
6 years	156	169	214	246	2.05	2.21	2.81	3.45
7 years	108	97	122	137	1.42	1.27	1.60	1.92
8 years and over	163	179	154	178	2.15	2.35	2.02	2.50
Not stated	1	1	1	2	0.01	0.01	0.01	0.03
<b>Total</b>	<b>7 592</b>	<b>7 629</b>	<b>7 606</b>	<b>7 133</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

The previous table illustrates a trend, which has been apparent since 1964, towards a longer period after marriage before the birth of the first child. In particular, there has been a decrease in the percentage of nuptial first live births to women who had been married less than two years, from 62.68 per cent in 1967 to 40.76 per cent in 1976. A corresponding increase is evident in the two to four years duration of marriage groups; from 29.34 per cent to 44.81 per cent.

### DEATHS

The 9 999 deaths registered in South Australia during 1976 was the third highest number ever recorded, contrasting with the lowest crude death rate yet recorded of 7.92 per thousand of mean population. Although crude death rates in excess of 16.0 were recorded in the 1860s, the rate has not exceeded 9.0 since 1956. Other fluctuations in the number of deaths and the crude death rate over time can be seen in the Statistical Summary, Appendix A.

#### Deaths: Numbers Registered and Rates, South Australia

Year	Number Registered			Crude Death Rate (a)		
	Males	Females	Persons	Males	Females	Persons
1972.....	5 477	4 287	9 764	9.12	7.12	8.12
1973.....	5 501	4 334	9 835	9.04	7.11	8.07
1974.....	5 728	4 508	10 236	9.28	7.29	8.29
1975.....	5 466	4 481	9 947	8.74	7.14	7.94
1976.....	5 462	4 537	9 999	8.67	7.18	7.92

(a) Number of deaths per 1 000 of estimated mean population.

#### Deaths: Numbers Registered in Age Groups, South Australia

Age Group	Males			Females			Persons		
	1974	1975	1976	1974	1975	1976	1974	1975	1976
Under 1 year .....	188	129	165	124	93	111	312	222	276
1 year .....	17	15	13	9	11	5	26	26	18
2 years .....	8	12	8	5	8	7	13	20	15
3 years .....	5	13	2	7	4	6	12	17	8
4 years .....	6	7	4	3	6	1	9	13	5
Total under 5 years ...	224	176	192	148	122	130	372	298	322
5-9 years .....	23	22	22	12	18	13	35	40	35
10-14 years .....	20	21	23	11	14	12	31	35	35
15-19 years .....	113	102	78	24	31	31	137	133	109
20-24 years .....	83	77	91	28	18	23	111	95	114
25-29 years .....	63	68	53	29	24	22	92	92	75
30-34 years .....	43	63	51	39	26	29	82	89	80
35-39 years .....	87	63	59	33	32	34	120	95	93
40-44 years .....	106	92	97	53	66	61	159	158	158
45-49 years .....	234	191	198	96	113	80	330	304	278
50-54 years .....	320	330	305	171	164	151	491	494	456
55-59 years .....	451	400	395	188	220	213	639	620	608
60-64 years .....	611	625	594	302	317	301	913	942	895
65-69 years .....	728	739	728	360	374	402	1 088	1 113	1 130
70-74 years .....	774	734	735	521	486	482	1 295	1 220	1 217
75-79 years .....	670	671	685	700	664	701	1 370	1 335	1 386
80-84 years .....	615	568	602	739	781	761	1 354	1 349	1 363
85-89 years .....	394	373	380	672	630	668	1 066	1 003	1 048
90-94 years .....	140	120	142	291	295	328	431	415	470
95 years and over .....	29	31	32	91	86	95	120	117	127
All ages .....	5 728	5 466	5 462	4 508	4 481	4 537	10 236	9 947	9 999

A long established trend of increases in the number of deaths at the higher ages has been offset to some degree by a decrease in those in the younger age groups. The effect of this trend related to the changes in age distribution of the population is illustrated in the next tables, which show age-specific death rates, i.e. deaths in each age group expressed as a rate per 1 000 of the population in that age group. Because age constitution of the population is known accurately only at censuses, the periods shown are those with a census date as their centre.

### Age-specific Death Rates: Males, South Australia <sup>(a)</sup>

Age Group (Years)	Death Rate (b)							
	1880-82	1900-02	1920-22	1932-34	1946-48	1953-55	1960-62	1970-72
0-4	51.85	32.12	19.98	9.90	8.09	6.41	5.82	4.66
5-9	3.33	2.81	2.33	1.18	1.00	0.52	0.50	0.43
10-14	2.59	1.85	1.55	1.08	0.68	0.65	0.46	0.38
15-19	4.48	2.88	2.41	1.69	1.42	1.50	1.08	1.48
20-24	4.85	4.19	3.47	2.35	1.44	1.88	1.37	1.55
25-29	6.32	5.16	3.67	2.51	1.59	1.70	1.59	1.12
30-34	7.51	5.30	3.97	2.51	1.88	1.57	1.62	1.41
35-39	9.00	6.77	5.12	3.23	2.41	2.29	2.08	2.04
40-44	12.25	8.50	6.10	4.73	3.63	3.56	3.43	3.15
45-49	16.10	10.26	8.37	6.82	6.12	5.48	5.44	5.49
50-54	17.29	14.19	11.58	9.82	10.74	10.16	9.24	9.37
55-59	25.28	20.74	18.99	15.11	16.28	15.71	15.75	16.01
60-64	31.77	30.23	26.02	24.98	26.08	24.33	24.39	25.10
65-69	46.67	47.24	41.62	36.14	40.08	39.31	37.84	41.00
70-74	63.52	64.27	62.49	57.07	60.79	62.59	59.47	64.42
75-79	92.49	89.66	105.50	92.60	97.69	94.55	88.56	96.09
80-84	138.02	140.35	158.90	147.86	145.56	141.64	135.85	142.39
85 and over	247.47	246.96	269.50	257.03	248.89	235.84	227.39	230.02
All ages	15.76	12.03	10.75	9.29	10.87	9.80	9.00	9.31

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Average annual number of deaths per 1 000 population at ages shown.

### Age-specific Death Rates: Females, South Australia <sup>(a)</sup>

Age Group (Years)	Death Rate (b)							
	1880-82	1900-02	1920-22	1932-34	1946-48	1953-55	1960-62	1970-72
0-4	45.36	27.20	16.29	8.29	7.12	5.01	3.93	3.39
5-9	3.28	2.02	2.30	1.04	0.54	0.45	0.35	0.32
10-14	2.49	1.64	1.32	0.88	0.38	0.42	0.30	0.29
15-19	4.16	3.47	2.71	1.25	0.75	0.52	0.37	0.65
20-24	5.59	4.16	2.91	2.36	1.04	0.63	0.58	0.48
25-29	8.01	5.00	3.95	2.73	1.65	0.85	0.70	0.60
30-34	7.67	5.66	4.18	2.66	1.91	0.99	0.96	0.91
35-39	10.29	6.90	5.27	3.85	2.03	1.79	1.33	1.18
40-44	9.76	7.85	4.99	4.10	3.48	2.56	1.80	1.86
45-49	11.65	8.20	6.42	5.80	4.59	3.65	3.03	2.95
50-54	13.09	10.83	9.18	8.06	7.09	5.88	5.22	4.60
55-59	14.86	14.08	10.65	11.24	10.33	9.04	7.82	7.41
60-64	24.30	20.45	18.07	17.68	14.97	14.06	12.74	12.16
65-69	36.27	35.51	33.15	27.16	25.22	23.01	21.05	20.32
70-74	53.10	53.80	46.20	42.19	42.17	40.35	35.52	33.42
75-79	93.21	87.96	83.56	75.53	72.07	72.20	58.28	57.60
80-84	94.83	126.07	131.63	121.15	121.57	109.92	108.61	99.42
85 and over	161.90	222.58	232.84	233.59	214.35	215.80	199.38	186.55
All ages	13.97	10.25	9.00	8.23	9.19	8.31	7.38	7.50

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Average annual number of deaths per 1 000 of population at ages shown.

## CAUSES OF DEATH

The classification of causes of deaths in Australia since 1907 has been based on the International Lists of Causes of Deaths (ICD). From time to time revisions to these lists have affected the comparability of the figures. Up to 1949 the effect of these revisions had been negligible but the introduction in 1950 of the Sixth Revision of the ICD introduced major changes which, together with the adoption of more flexible rules for selecting the underlying cause where certificates of cause of death showed more than one cause, affected the comparability of figures for years before 1950 with those for 1950 and later. A complete classification of causes of deaths for each State and Territory of Australia for 1950 according to both the Fifth and Sixth Revisions was published by the Australian Statistician in Demography 1950, Bulletin No. 68. The Seventh Revision adopted in Australia in 1958 did not affect comparability significantly.

The Eighth Revision, brought into use in Australia in 1968, provided a few changes to the structure of the tabular list, e.g. the transferring of cerebrovascular diseases from the section covering diseases of the nervous system and sense organs to that covering diseases of the circulatory system.

Comparability has not been affected greatly by the changes with the exception of the categories within the section now entitled 'Certain Causes of Perinatal Morbidity and Mortality'—the Seventh Revision title was 'Certain Diseases of Early Infancy'. Seventh Revision classification in this section was related to the condition in the infant whereas the Eighth Revision provides primarily for classification wherever possible to maternal diseases or conditions or to the circumstances of the birth rather than to the resultant condition in the infant. ICD Eighth Revision code numbers have been shown where appropriate in the tables which follow.

In the following table, deaths registered in 1976 are shown classified according to the abbreviated list of the Eighth Revision together with the percentages from each cause and the rate per 10 000 of mean population.

## Causes of Death: South Australia, 1976

Abbreviated Classification (a)	ICD Code Number	Number of Deaths	Proportion of Total	Rate per 10 000 of Mean Population
			Per cent	
3 Bacillary dysentery and amoebiasis	004.006	2	0.02	0.02
4 Enteritis and other diarrhoeal diseases	008.009	20	0.20	0.16
5 Tuberculosis of respiratory system	010-012	3	0.03	0.02
6 Other tuberculosis including late effects	013-019	2	0.02	0.02
11 Meningococcal infection	036	1	0.01	0.01
14 Measles	055	1	0.01	0.01
17 Syphilis and its sequelae	090-097	1	0.01	0.01
18 Other infective and parasitic diseases	Remainder 000-136	17	0.17	0.14
19 Malignant neoplasms	140-209	1 831	18.31	14.51
20 Benign and unspecified neoplasms	210-239	12	0.12	0.10
21 Diabetes mellitus	250	149	1.49	1.18
22 Avitaminoses and other nutritional deficiency	260-269	6	0.06	0.05
23 Anaemias	280-285	17	0.17	0.14
24 Meningitis	320	5	0.05	0.04
26 Chronic rheumatic heart disease	393-398	90	0.90	0.71
27 Hypertensive disease	400-404	91	0.91	0.72
28 Ischaemic heart disease	410-414	3 085	30.85	24.45
29 Other forms of heart disease	420-429	494	4.94	3.92
30 Cerebrovascular disease	430-438	1 365	13.65	10.82
31 Influenza	470-474	58	0.58	0.46
32 Pneumonia	480-486	258	2.58	2.05
33 Bronchitis, emphysema and asthma	490-493	350	3.50	2.77
34 Peptic ulcer	531-533	61	0.61	0.48



## Causes of Death: South Australia, 1976 (continued)

Abbreviated Classification (a)	ICD Code Number	Number of Deaths	Proportion of Total	Rate per 10 000 of Mean Population
			Per cent	
35 Appendicitis .....	540-543	2	0-02	0-02
36 Intestinal obstruction and hernia .....	550-553, 560	33	0-33	0-26
37 Cirrhosis of liver .....	571	130	1-30	1-03
38 Nephritis and nephrosis .....	580-584	52	0-52	0-41
39 Hyperplasia of prostate .....	600	16	0-16	0-13
40, 41 Complications of pregnancy, childbirth and puerperium .....	630-678	1	0-01	0-01
42 Congenital anomalies .....	740-759	98	0-98	0-78
43 Birth injury, difficult labour and other anoxic and hypoxic conditions .....	764-768, 772, 776	55	0-55	0-44
44 Other causes of perinatal mortality .....	760-763, 769-771, 773-775, 777-779	75	0-75	0-59
45 Symptoms and ill-defined conditions .....	780-796	95	0-95	0-75
46 All other diseases .....	Residual	828	8-28	6-56
47 Motor vehicle accidents .....	E810-E823	303	3-03	2-40
48 All other accidents .....	E800-E807, E825-E949	223	2-23	1-77
49 Suicide and intentional self-inflicted injuries .....	E950-E959	146	1-46	1-16
50 All other external causes .....	E960-E999	23	0-23	0-18
Total all causes .....		9 999	100-00	79-24

(a) No deaths were recorded in 1976 in the following categories: 1 Cholera (000), 2 Typhoid fever (001), 7 Plague (020), 8 Diphtheria (032), 9 Whooping cough (033), 10 Streptococcal throat and scarlet fever (034), 12 Acute poliomyelitis (040-043), 13 Smallpox (050), 15 Typhus and other rickettsioses (080-083), 16 Malaria (084), 25 Active rheumatic fever (390-392).

The following table shows for 1976 the main causes of deaths in selected age groups.

## Main Causes of Death: Age Groups, South Australia, 1976

International Classification Number	Age Group and Cause of Death	Deaths	Proportion of Total Deaths in Age Groups	Proportion of Total Deaths from the Specified Cause
	0-4 Years	No.	%	%
740-759	Congenital anomalies .....	79	24-5	80-6
760-763, 769-771, 773-775, 777-779	Other perinatal causes, including maternal conditions, prematurity, etc. ....	75	23-3	100-0
780-796	Symptoms and ill-defined conditions .....	45	13-9	47-3
764-768, 772, 776	Birth injury, difficult labour, etc. ....	55	17-0	100-0
E800-E999	Accidents, poisonings, violence .....	29	9-0	4-1
	Other causes .....	39	12-1	..
	5-14 Years			
E800-E999	Accidents, poisonings, violence .....	37	52-8	5-3
140-209	Malignant neoplasms .....	15	21-4	0-8
740-759	Congenital anomalies .....	6	8-5	6-1
	Other causes .....	12	17-1	..
	15-24 Years			
E800-E999	Accidents, poisonings, violence .....	172	77-1	24-7
140-209	Malignant neoplasms .....	18	8-1	0-9
480-493	Pneumonia, bronchitis, emphysema, asthma .....	7	3-1	1-1
	Other causes .....	26	11-7	..
	25-34 Years			
E800-E999	Accidents, poisonings, violence .....	90	58-1	12-9
140-209	Malignant neoplasms .....	30	19-3	1-6
393-398, 410-429	Heart disease .....	6	3-9	0-0
	Other causes .....	29	18-7	..

## Main Causes of Death: Age Groups, South Australia, 1976 (continued)

International Classification Number	Age Group and Cause of Death	Deaths	Proportion of Total Deaths in Age Groups	Proportion of Total Deaths, from the Specified Cause
	35-44 Years	No.	%	%
140-209	Malignant neoplasms .....	58	23.1	3.1
E800-E999	Accidents, poisonings, violence .....	56	22.3	8.0
393-398, 410-429	Heart disease .....	69	27.5	1.8
430-438	Cerebrovascular disease .....	16	6.4	1.1
	Other causes .....	52	20.7	..
	45-54 Years			
393-398, 410-429	Heart disease .....	264	36.0	7.1
140-209	Malignant neoplasms .....	196	26.7	10.7
E800-E999	Accidents, poisonings, violence .....	79	10.8	11.3
430-438	Cerebrovascular disease .....	41	5.6	3.0
571	Cirrhosis of liver .....	43	5.8	33.0
480-493	Pneumonia, bronchitis, emphysema, asthma .....	30	4.1	4.9
	Other causes .....	81	11.0	..
	55-64 Years			
393-398, 410-429	Heart disease .....	576	38.3	15.6
140-209	Malignant neoplasms .....	408	27.1	22.2
430-438	Cerebrovascular disease .....	132	8.8	9.6
E800-E999	Accidents, poisonings, violence .....	78	5.2	11.2
480-493	Pneumonia, bronchitis, emphysema, asthma .....	77	5.1	12.6
571	Cirrhosis of liver .....	45	3.0	34.6
	Other causes .....	187	12.4	..
	65-74 Years			
393-398, 410-429	Heart disease .....	1 001	42.7	27.2
140-209	Malignant neoplasms .....	517	22.0	28.2
430-438	Cerebrovascular disease .....	294	12.5	21.5
480-493	Pneumonia, bronchitis, emphysema, asthma .....	159	6.8	26.1
440-448	Diseases of arteries, arterioles and capillaries .....	79	3.4	21.8
E800-E999	Accidents, poisonings, violence .....	51	2.2	7.3
250	Diabetes mellitus .....	48	2.0	32.2
	Other causes .....	198	8.4	..
	75 Years and Over			
393-398, 410-429	Heart disease .....	1 745	39.7	47.5
430-438	Cerebrovascular disease .....	870	19.8	63.7
140-209	Malignant neoplasms .....	587	13.4	32.0
480-493	Pneumonia, bronchitis, emphysema, asthma .....	323	7.4	53.1
440-448	Diseases of arteries, arterioles and capillaries .....	238	5.4	65.9
E800-E999	Accidents, poisonings, violence .....	103	2.3	14.8
250	Diabetes mellitus .....	75	1.7	50.3
	Other causes .....	453	10.3	..

The long-term trends in deaths and death rates from some of the main causes are discussed in the following pages. One of the factors affecting these trends has been the reduction of mortality in early childhood. This improvement has increased the number of persons reaching higher ages where the risk from degenerative diseases is greatest; consequently deaths from degenerative diseases now constitute a higher proportion of deaths than formerly.

### Infectious Diseases

In 1956 a poliomyelitis immunisation program began and since then the incidence of and deaths from this disease have declined (see Part 6.5).

There has been a long-term downward trend in deaths from respiratory tuberculosis. This has been assisted by the introduction in March 1952 of compulsory chest X-ray surveys of the population, enabling early detection and therefore more effective treatment of the disease.

Deaths from certain infectious diseases over the period 1915 to 1976 are shown in the following table.

Deaths from Certain Infectious Diseases, South Australia<sup>(a)</sup>

Period	Respiratory Tuberculosis (010-012)	Typhoid Fever (001)	Scarlet Fever (034-1)	Diphtheria (032)	Whooping Cough (033)	Acute Polio- myelitis (040-043)	Measles (055)
Annual Average:							
1915-19	339	311	4	94	21	(b)	14
1920-24	330	28	9	70	28	9	7
1925-29	313	12	2	25	13	3	12
1930-34	261	7	2	12	13	3	6
1935-39	211	4	1	27	11	6	2
1940-44	190	3	2	30	10	2	9
1945-49	161	1	1	7	8	9	6
1950-54	81	—	—	1	2	23	3
1955-59	43	—	—	1	1	2	3
1960-64	32	—	—	—	1	1	2
1965-69	20	—	—	—	—	—	2
1970-74	8	—	—	—	—	—	—
1975	4	—	—	—	—	—	—
1976	3	—	—	—	—	—	1

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Not separately recorded.

## Malignant Neoplasms

For 1950 and subsequent years, deaths from malignant neoplasms (generally known as 'cancer') have included those deaths classified to neoplasms of lymphatic and haematopoietic tissues (ICD 200-209). This latter group, which accounted for 179 of the 1 831 deaths attributed to malignant neoplasms in 1976, includes such diseases as lymphosarcoma, Hodgkin's disease, leukaemia and multiple myeloma.

The following table shows deaths from malignant neoplasms according to site of the disease for selected years.

Malignant Neoplasms: Deaths, Site of Disease, South Australia<sup>(a)</sup>

Site of Disease	1960	1965	1970	1975	1976
	Number				
Malignant neoplasm of:					
Buccal cavity and pharynx (140-9)	21	20	35	33	28
Digestive organs and peritoneum (150-9)	425	479	546	583	560
Respiratory system (160-3)	130	201	291	381	374
Skin (172, 173)	28	34	44	48	47
Breast (174)	120	107	146	171	175
Uterus (180-2)	66	61	52	55	61
Other female genital organs (183, 184)	39	47	63	61	52
Male genital organs (185-7)	74	84	110	142	105
Urinary organs (188, 189)	67	88	79	88	72
Brain and nervous system (191, 192)	32	50	43	54	62
Other and unspecified sites (170, 171, 190, 193-9)	48	84	83	107	116
Neoplasms of lymphatic and haematopoietic tissue (200-9)	97	128	160	187	179
Total deaths (140-209)	1 147	1 383	1 652	1 910	1 831

**Malignant Neoplasms: Deaths, Site of Disease, South Australia<sup>(a)</sup> (continued)**

Site of Disease	1960	1965	1970	1975	1976
			Rate <sup>(b)</sup>		
Buccal cavity and pharynx (140-9) . . .	0.22	0.19	0.30	0.27	0.22
Digestive organs and peritoneum (150-9) . . . . .	4.50	4.50	4.72	4.71	4.44
Respiratory system (160-3) . . . . .	1.38	1.89	2.51	3.08	2.96
Skin (172, 173) . . . . .	0.30	0.32	0.38	0.39	0.37
Breast (174) . . . . .	1.27	1.01	1.26	1.38	1.39
Uterus (180-2) . . . . .	0.70	0.57	0.45	0.44	0.48
Other female genital organs (183, 184) . . . . .	0.41	0.44	0.54	0.49	0.41
Male genital organs (185-7) . . . . .	0.78	0.79	0.95	1.15	0.83
Urinary organs (188, 189) . . . . .	0.71	0.83	0.68	0.71	0.57
Brain and nervous system (191, 192) . . . . .	0.34	0.47	0.37	0.44	0.49
Other and unspecified sites (170, 171, 190, 193-9) . . . . .	0.51	0.79	0.72	0.86	0.92
Neoplasms of lymphatic and haematopoietic tissue (200-9) . . . . .	1.03	1.20	1.38	1.51	1.42
<b>Total rate (140-209) . . . . .</b>	<b>12.14</b>	<b>13.00</b>	<b>14.26</b>	<b>15.43</b>	<b>14.51</b>

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Per 10 000 of mean population.

The next table indicates a steady increase in deaths from malignant neoplasms up to 1975 and the table of age-specific death rates which follows shows how the rate has increased for older age groups. Therefore, the increase over the period in the all ages rate is partly because of the increasing proportion of the population in the higher age groups.

**Deaths from Malignant Neoplasms (140-209), South Australia<sup>(a)</sup>**

Period	Number of Deaths			Death Rate <sup>(b)</sup>		
	Males	Females	Persons	Males	Females	Persons
<b>Annual Average:</b>						
1950-54 . . . . .	462	483	945	12.11	12.96	12.53
1955-59 . . . . .	565	519	1 084	12.79	12.06	12.43
1960-64 . . . . .	656	617	1 273	13.16	12.58	12.88
1965-69 . . . . .	820	698	1 518	14.77	12.67	13.72
1970-74 . . . . .	958	784	1 742	15.94	13.06	14.50
<b>Year:</b>						
1972 . . . . .	970	791	1 761	16.15	13.14	14.65
1973 . . . . .	975	821	1 796	16.03	13.46	14.74
1974 . . . . .	1 055	785	1 840	17.10	12.69	14.89
1975 . . . . .	1 052	858	1 910	16.82	13.68	15.25
1976 . . . . .	994	837	1 831	15.77	13.25	14.51

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Number of deaths per 10 000 of mean population.

Malignant Neoplasms: Age-specific Death Rates, South Australia<sup>(a)</sup>

Age Group (Years)	Death Rate (b)					
	1932-34	1946-48	1953-55	1960-62	1965-67	1970-72
MALES						
0-4	—	0.49	1.18	1.02	1.14	1.27
5-14	0.12	0.51	1.05	0.82	0.97	0.79
15-24	0.31	0.07	1.64	0.86	0.90	0.90
25-34	1.05	1.18	1.21	1.33	1.62	1.24
35-44	3.36	2.57	4.63	4.29	3.72	5.36
45-54	8.65	12.35	10.42	11.57	15.09	14.80
55-64	35.41	32.77	33.43	36.52	43.46	43.94
65-74	89.18	82.62	69.54	83.67	87.28	101.64
75 and over	147.57	148.98	149.45	142.29	151.06	175.14
All ages	11.40	13.60	12.54	12.86	14.09	15.69
FEMALES						
0-4	0.30	0.41	1.24	0.79	0.57	0.57
5-14	0.13	0.23	0.34	0.79	0.55	0.38
15-24	0.25	0.40	0.72	0.46	0.82	0.56
25-34	1.49	1.74	1.99	2.16	1.70	2.39
35-44	6.32	4.42	5.95	6.66	5.68	4.88
45-54	16.86	15.39	12.67	16.69	16.14	15.83
55-64	34.61	30.12	32.91	28.19	30.33	30.90
65-74	55.98	57.21	52.26	52.24	49.90	55.38
75 and over	115.15	108.52	98.41	99.76	94.61	102.54
All ages	11.37	13.12	12.64	12.68	12.30	13.13

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Average annual number of deaths per 10 000 of population at ages shown.

## Cerebrovascular Disease

The increase in both numbers and rates of deaths from cerebrovascular disease (commonly referred to as 'a stroke') is further evidence of the effect of the increased proportion of the population at higher ages.

Deaths from Cerebrovascular Disease (430-438), South Australia<sup>(a)</sup>

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
1930-34	201	231	432	6.94	8.01	7.47
1935-39	231	294	525	7.84	9.95	8.90
1940-44	271	368	639	8.96	12.03	10.51
1945-49	321	431	752	9.92	13.21	11.57
1950-54	404	553	957	10.62	14.82	12.70
1955-59	481	614	1 095	10.89	14.27	12.55
1960-64	490	645	1 135	9.83	13.16	11.48
1965-69	567	731	1 298	10.21	13.26	11.73
1970-74	582	808	1 390	9.72	13.46	11.59

Deaths from Cerebrovascular Disease (430-438), South Australia<sup>(a)</sup> (continued)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
<b>Year:</b>						
1972.....	587	792	1 379	9.78	13.16	11.47
1973.....	585	779	1 364	9.62	12.77	11.20
1974.....	550	817	1 367	8.91	13.21	11.06
1975.....	570	834	1 404	9.11	13.29	11.21
1976.....	566	799	1 365	8.98	12.65	10.82

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Number of deaths per 10 000 of mean population.

Although the rate generally has fallen since 1954, deaths from this cause still constituted 19.8 per cent of deaths of persons aged seventy-five years and over in 1976. During the period 1930-34 deaths classified to this cause were only 8.6 per cent of all deaths, but during 1970-74 they were 14.0 per cent of all deaths.

**Diseases of the Heart**

The following table shows the number of deaths attributed to heart disease and rates per 10 000 of the mean population since 1940.

The percentage of total deaths classified to heart disease increased from 25.5 per cent in the period 1940-44 to 36.1 per cent during 1970-74. Over the same period the rate per 10 000 of mean population increased from 26.1 to 30.1. Apart from the effect of the ageing population, there are other difficult-to-measure factors which have influenced this large increase, namely changes in the mode of certification and classification, and improvement both in diagnosis and certification; therefore any comparison of numbers, rates and percentages of deaths from this cause over the period should be made only with caution.

Deaths from Diseases of the Heart (393-398, 410-429), South Australia<sup>(a)</sup>

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
<b>Annual Average:</b>						
1940-44.....	886	704	1 590	29.29	23.02	26.14
1945-49.....	1 094	822	1 916	33.84	25.15	29.47
1950-54.....	1 342	996	2 338	35.22	26.70	31.01
1955-59.....	1 519	1 111	2 630	34.38	25.81	30.15
1960-64.....	1 776	1 245	3 021	35.61	25.42	30.56
1965-69.....	2 036	1 432	3 468	36.69	25.97	31.35
1970-74.....	2 080	1 503	3 583	34.70	25.02	29.85
<b>Year:</b>						
1972.....	2 074	1 456	3 530	34.54	24.20	29.36
1973.....	2 105	1 484	3 589	34.60	24.33	29.46
1974.....	2 108	1 555	3 663	34.16	25.14	29.65
1975.....	2 034	1 531	3 565	32.52	24.40	28.46
1976.....	2 080	1 589	3 669	33.01	25.16	29.08

(a) Deaths of full-blood Aborigines where identified in registration were excluded before 1966.

(b) Number of deaths per 10 000 of mean population.

## External Causes

In the table which follows, deaths from selected categories of external cause (accidents, poisonings and violence) are shown for recent years.

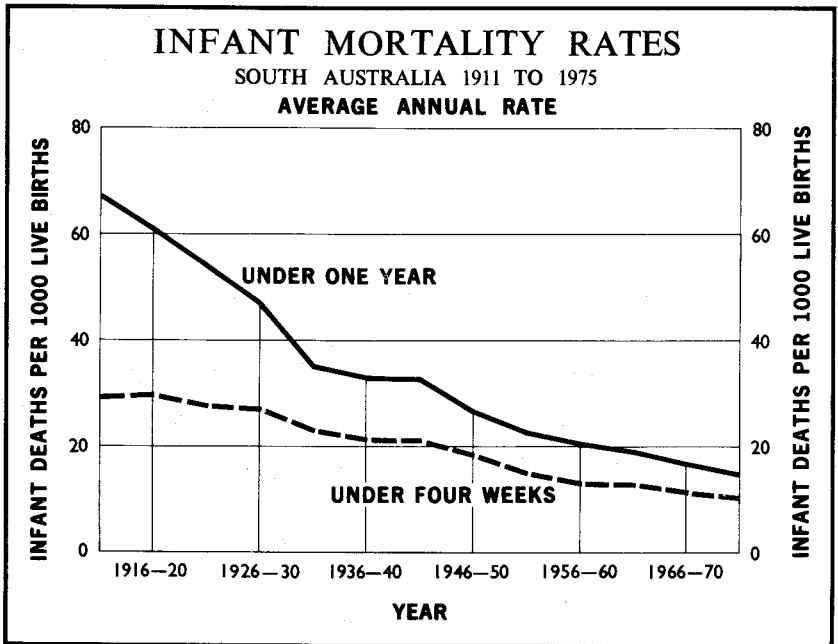
## Deaths: External Causes (Accidents, Poisonings and Violence), South Australia

Year	Cause							Total Deaths for Causes (E800-E999)
	Motor Vehicle Traffic Accidents (E810-E819)	Accidental Drownings (E830, E832, E910)	Accidental Poisonings (E850-E877)	Accidental Falls (E880-E887)	Suicide and (Intentional) Self-inflicted Injury (E950-E959)	Homicide and Injury Purposely Inflicted (E960-E969)	Other External Causes (Balance E800-E999)	
MALES								
1972.....	212	41	4	39	94	10	75	475
1973.....	214	36	1	34	79	5	75	444
1974.....	298	23	4	42	95	9	85	556
1975.....	249	41	3	48	103	9	77	530
1976.....	222	28	9	36	105	8	69	477
FEMALES								
1972.....	81	6	2	60	33	7	12	201
1973.....	90	11	6	66	42	3	51	269
1974.....	86	7	2	61	39	14	26	235
1975.....	82	5	2	59	46	9	34	237
1976.....	74	13	1	48	41	14	27	218

## Deaths: External Causes (Accidents, Poisonings and Violence), Age Groups South Australia, 1976

Age Groups	Cause							Total Deaths for Causes (E800-E999)
	Motor Vehicle Traffic Accidents (E810-E819)	Accidental Drownings (E830, E832, E910)	Accidental Poisonings (E850-E877)	Accidental Falls (E880-E887)	Suicide and (Intentional) Self-inflicted Injury (E950-E959)	Homicide and Injury Purposely Inflicted (E960-E969)	Other External Causes (Balance E800-E999)	
MALES								
Under 15 years	19	5	—	2	—	1	17	44
15-24 years ...	94	6	5	—	22	2	14	143
25-34 years ...	27	5	2	3	24	1	6	68
35-44 years ...	14	4	—	1	14	2	8	43
45-54 years ...	20	4	2	2	15	1	7	51
55-64 years ...	24	3	—	5	15	—	7	54
65-74 years ...	15	1	—	—	10	1	7	34
75 years and over.....	9	—	—	23	5	—	3	40
Total ....	222	28	9	36	105	8	69	477
FEMALES								
Under 15 years	11	7	—	—	—	—	4	22
15-24 years ...	19	2	1	1	3	2	1	29
25-34 years ...	4	1	—	—	10	4	3	22
35-44 years ...	4	1	—	—	6	2	—	13
45-54 years ...	6	2	—	—	13	2	5	28
55-64 years ...	9	—	—	—	4	3	8	24
65-74 years ...	9	—	—	2	3	—	3	17
75 years and over.....	12	—	—	45	2	1	3	63
Total ....	74	13	1	48	41	14	27	218

Motor vehicle traffic accident deaths are considerably fewer than deaths caused by either heart disease, cerebrovascular disease or malignant neoplasms. However it ranks with the other major causes when considered in terms of 'life years lost'. In 1976 there were 228 deaths from all causes of persons in the 15-24 years age group and of these 50.7 per cent were caused by motor vehicle accidents.



#### INFANT MORTALITY

The infant mortality rate, *i.e.* the number of deaths of children under one year to every 1 000 live births, has shown a marked decline from 148.77 in 1875-79 to 15.62 in 1970-74. The two lowest rates recorded in this State were 13.52 in 1973 and 11.11 in 1975. The number of infant deaths and infant death rates for selected years since 1851 are shown in the Statistical Summary, Appendix A.

The fall in infant mortality is attributable to many factors, but the most important are reflected in the falling neo-natal death rate. This is partly because of better pre-natal care and obstetric management, which have led to safer births, and to the neo-natal intensive care units at major maternity hospitals which have brought about a high survival rate for small and immature infants.



## Infant Mortality: Age at Death, South Australia

Year	Under 1 Day	1 Day and under 1 Week	1 Week and under 4 Weeks	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 12 Months	Total under 12 Months	
							Number	Rate (a)
MALES								
1972	90	54	11	12	31	14	212	18.76
1973	67	40	10	23	22	12	174	16.61
1974	75	57	13	13	19	11	188	17.92
1975	56	26	7	16	15	9	129	12.63
1976	59	35	17	21	20	13	165	16.77
FEMALES								
1972	54	31	18	20	17	15	155	14.70
1973	35	23	9	19	9	7	102	10.27
1974	46	26	11	12	14	15	124	12.79
1975	35	11	13	11	12	11	93	9.52
1976	47	26	8	15	8	7	111	12.19
PERSONS								
1972	144	85	29	32	48	29	367	16.80
1973	102	63	19	42	31	19	276	13.52
1974	121	83	24	25	33	26	312	15.46
1975	91	37	20	27	27	20	222	11.11
1976	106	61	25	36	28	20	276	14.57

(a) Rate per 1 000 live births.

The causes of infant deaths in 1976 classified according to age group are shown in the following table.

## Infant Mortality: Causes in Age Groups, South Australia, 1976

Cause of Death	Age Group					Total under 12 Months
	Under 1 Week	1 Week and under 4 Weeks	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 12 Months	
Infective and parasitic diseases (000-136)	1	4	—	1	3	9
Diseases of nervous system and sense organs (320-389)	1	2	1	—	1	5
Diseases of respiratory system (460-519)	—	—	1	2	—	3
Congenital anomalies (740-759)	34	11	13	3	8	69
Perinatal causes:						
Maternal diseases and conditions (760-763)	10	1	—	—	—	11
Difficult labour (764-768)	4	—	—	—	—	4
Conditions of placenta and cord (770-771)	14	—	—	—	—	14
Haemolytic disease (774-775)	3	—	—	—	—	3
Anoxic and hypoxic conditions n.e.c. (776)	43	2	—	1	—	46
Immaturity, unqualified (777)	18	1	—	—	—	19
Other perinatal causes (769, 772, 773, 778)	30	3	—	—	—	33
Sudden death (cause unknown) (795)	1	1	17	17	3	39
All other diseases	7	—	2	2	2	13
Accidents, poisonings, violence (E800-E999)	1	—	2	2	3	8
Total all causes	167	25	36	28	20	276

Statistics of infant mortality shown in the previous table are inclusive of the neo-natal segment of perinatal deaths which are discussed in the following paragraphs. It should be noted that owing to reconciliation difficulties between the sources of information from which the data is compiled, minor differences will be noted when comparing neo-natal deaths with infant deaths under four weeks shown in this section.

### PERINATAL DEATHS

Perinatal deaths comprise:

(a) *Foetal deaths*: a child born not alive, of at least twenty weeks gestation or 400 grams weight;

(b) *Neo-natal deaths*: a live-born child dying within twenty-eight days after birth.

Legislation which became effective from the beginning of 1968 requires a Medical Certificate of Cause of Perinatal Death to be filled in by the attending medical practitioner and forwarded to the Principal Registrar. Before 1968 neo-natal deaths were not separated for registration purposes from other deaths. However, from 1937 to 1967 a separate register of all still births (foetal deaths) was maintained by the Principal Registrar; registration of a still birth was compulsory and related to any child which after the twenty-eighth week of gestation did not breathe or show any signs of life at any time after being completely expelled from its mother. Only total numbers of the registered still births were recorded and no detailed statistics were compiled.

#### Live Births, Foetal Deaths, Neo-natal Deaths and Perinatal Deaths South Australia

Year	Live Births Number	Perinatal Deaths					
		Foetal		Neo-natal		Total Perinatal	
		Number	Rate (a)	Number	Rate (b)	Number	Rate (c)
<b>MALES</b>							
1972.....	11 299	119	10.42	156	13.81	275	24.08
1973.....	10 475	120	11.33	115	10.98	235	22.18
1974.....	10 489	119	11.22	144	13.73	263	24.79
1975.....	10 212	92	8.93	89	8.72	181	17.56
1976.....	9 838	107	10.76	111	11.28	218	21.92
<b>FEMALES</b>							
1972.....	10 545	110	10.32	103	9.77	213	19.99
1973.....	9 932	124	12.33	70	7.05	194	19.29
1974.....	9 692	117	11.93	84	8.67	201	20.49
1975.....	9 774	97	9.83	59	6.04	156	15.80
1976.....	9 109	103	11.18	81	8.89	184	19.97
<b>PERSONS</b>							
1972.....	21 844	229	10.37	259	11.86	488	22.11
1973.....	20 407	244	11.82	185	9.07	429	20.77
1974.....	20 181	236	11.56	228	11.30	464	22.73
1975.....	19 986	189	9.37	148	7.41	337	16.70
1976.....	18 947	210	10.96	192	10.13	402	20.98

(a) Foetal death rate is the number of foetal deaths per 1 000 of the total of live births and foetal deaths.

(b) Neo-natal death rate is the number of neo-natal deaths per 1 000 live births.

(c) Perinatal death rate is the number of perinatal deaths per 1 000 of the total of live births and foetal deaths.

Despite the improvements which have already been achieved infant and perinatal mortality still presents one of the most challenging areas for medical and scientific research. Rh incompatibility is now a declining cause of death as a direct result of

prophylactic immunisation. In Adelaide, research on placental efficiency and foetal anoxia has enabled pre-natal detection of impending danger, so that treatment can prevent damage or death of the foetus. Falling death rates attributable to placental disorders and anoxia is evidence of this.

**Perinatal Deaths: Causes of Death, South Australia**

Cause of Death	1973	1974	1975	1976
Chronic circulatory and genito-urinary disease in mother .....	—	1	2	—
Other maternal conditions unrelated to pregnancy .....	14	7	10	14
Toxaemias of pregnancy .....	39	34	19	19
Maternal ante- and intrapartum infection	4	3	1	3
Difficult labour with abnormality of bones, organs or tissues of pelvis ...	2	1	4	2
Difficult labour with disproportion .....	1	2	2	1
Difficult labour with malposition of foetus .....	8	3	4	1
Difficult labour with abnormality of forces of labour .....	—	4	2	4
Difficult labour with other and unspecified complications .....	1	1	1	1
Other complications of pregnancy and child-birth .....	53	67	37	51
Conditions of placenta .....	75	93	69	76
Conditions of umbilical cord .....	29	18	19	19
Birth injury without mention of cause ...	3	1	3	7
Haemolytic disease of new-born .....	11	2	5	6
Anoxic and hypoxic conditions not elsewhere classified .....	55	79	42	64
Other conditions of foetus and new-born	32	56	38	50
Congenital anomalies .....	82	78	67	65
Infections of foetus and new-born .....	4	1	4	5
Other diseases of foetus and new-born ..	16	12	8	13
External causes of injury to new-born ...	—	1	—	1
<b>Total .....</b>	<b>429</b>	<b>464</b>	<b>337</b>	<b>402</b>

**EXPECTATION OF LIFE**

The expectation of life at age  $x$  is defined as the average number of years lived after age  $x$  by each group of persons aged exactly  $x$  years. Because detailed information of the age structure and mortality experience of the population is required, the calculation of the expectation of life for each age is generally based on a period which spans a population census (the only time at which a sufficiently accurate age distribution is available).

The table which follows shows the expectation of life at specified ages in Australia based on mortality experience in the decade to 1910 and for the three years spanning each of the Censuses of 1921, 1933, 1947, 1954, 1961, 1966 and 1971. Generally, the figures shown in the table indicate that the number of years which people of all ages in Australia can expect to live has increased steadily since the turn of the century.

## Expectation of Life, Australia

Age	1901-10	1920-22	1932-34	1946-48	1953-55	1960-62	1965-67	1970-72
MALES								
0.....	55.2	59.2	63.5	66.1	67.1	67.9	67.6	67.8
5.....	57.9	60.4	62.6	63.8	64.3	64.8	64.4	64.5
10.....	53.5	56.0	58.0	59.0	59.5	59.9	59.5	59.7
15.....	49.0	51.4	53.4	54.3	54.7	55.1	54.6	54.8
20.....	44.7	47.0	48.8	49.6	50.1	50.4	50.0	50.2
25.....	40.6	42.7	44.4	45.0	45.5	45.8	45.4	45.6
30.....	36.5	38.4	39.9	40.4	40.9	41.1	40.7	40.9
35.....	32.5	34.2	35.5	35.8	36.3	36.5	36.0	36.2
40.....	28.6	30.1	31.1	31.2	31.7	31.8	31.4	31.6
45.....	24.8	26.0	26.9	26.8	27.2	27.4	27.0	27.1
50.....	21.2	22.2	22.8	22.7	22.9	23.1	22.8	22.9
55.....	17.7	18.5	19.0	18.8	19.0	19.2	18.8	18.9
60.....	14.3	15.1	15.6	15.4	15.5	15.6	15.3	15.4
65.....	11.3	12.0	12.4	12.3	12.3	12.5	12.2	12.2
70.....	8.7	9.3	9.6	9.6	9.6	9.8	9.5	9.5
75.....	6.6	6.9	7.2	7.2	7.3	7.5	7.3	7.3
80.....	5.0	5.0	5.2	5.4	5.5	5.6	5.5	5.5
FEMALES								
0.....	58.8	63.3	67.1	70.6	72.8	74.2	74.2	74.5
5.....	60.8	63.6	65.6	67.9	69.6	70.8	70.6	71.0
10.....	56.4	59.2	61.0	63.1	64.8	65.9	65.8	66.1
15.....	51.9	54.6	56.3	58.3	59.9	61.0	60.8	61.2
20.....	47.5	50.0	51.7	53.5	55.1	56.2	56.0	56.4
25.....	43.4	45.7	47.2	48.7	50.2	51.3	51.2	51.5
30.....	39.3	41.5	42.8	44.1	45.4	46.5	46.3	46.7
35.....	35.4	37.3	38.4	39.5	40.7	41.7	41.6	41.9
40.....	31.5	33.1	34.0	34.9	36.0	37.0	36.9	37.2
45.....	27.6	29.0	29.7	30.5	31.4	32.3	32.3	32.6
50.....	23.7	24.9	25.6	26.1	27.0	27.9	27.8	28.1
55.....	19.9	21.0	21.6	22.0	22.8	23.6	23.6	23.8
60.....	16.2	17.2	17.7	18.1	18.8	19.5	19.5	19.7
65.....	12.9	13.6	14.2	14.4	15.0	15.7	15.7	15.9
70.....	10.0	10.4	11.0	11.1	11.6	12.2	12.2	12.4
75.....	7.6	7.7	8.2	8.3	8.7	9.2	9.2	9.4
80.....	5.7	5.6	6.0	6.0	6.3	6.7	6.7	6.9

## 5.4 MIGRATION

## Powers and Legislation of the Commonwealth Government

Under the Constitution, the Commonwealth Parliament is empowered to make laws on immigration, emigration, aliens and the influx of criminals.

Immigration into Australia is regulated by the *Migration Act* 1958, which came into force on 1 June 1959. The *Aliens Act* 1947, provides that a register of aliens shall be maintained for every State or mainland Territory of Australia and that, unless exempted, aliens sixteen years of age and over are required to register with the Department of Immigration and Ethnic Affairs. Under the provisions of the *Australian Citizenship Act* 1948 aliens may, upon application, be granted citizenship; generally, this is after three

years residence but may be earlier under certain circumstances. Legislation and conditions of immigration into Australia and of naturalisation are discussed in detail in the *Official Year Book of Australia*.

### Assisted Migration

From early colonial times free or assisted passages were given to large numbers of migrants from Britain, and to lesser numbers from other countries. Responsibility for migrant recruitment and transport was originally with the Colonial Governments, then the States, and in 1920-21 was transferred to the Commonwealth Government.

After the 1939-45 War, Australia and Britain entered into agreements to provide free passages for ex-servicemen and assisted passages for other British migrants. The first agreement ended in 1955, but the assisted passage agreement continued until 1972. Since then Australia has provided unilateral assistance for British migrants.

Large-scale assisted migration from Europe began with Australian participation in the resettlement of Displaced Persons under the auspices of the International Refugee Organisation. Agreement with a number of European countries, either directly or through the agency of the Inter-Governmental Committee for European Migration, resulted in a preponderance of European assisted migration to Australia over the next twenty-five years. During this time Australia developed unilateral arrangements to assist other migrants from Europe, the United States and elsewhere.

Since May 1973, there has been a uniform policy on assisted migration from all countries and assisted passages are now only given to the spouses and minor dependent children of Australian residents, refugees and people whose skills are needed in Australia.

Assisted settler arrivals from January 1947 to December 1976 totalled 2 035 283, of whom 1 125 950 arrived under British schemes. Of the total, 228 801 stated on arrival that their proposed destination was South Australia.

### Overseas Arrivals and Departures

Since 1924 the movements of overseas travellers have been classified into two main categories according to declared intention regarding residence short-term and long-term (including permanent). For short-term movements, overseas visitors and Australian residents are identified separately.

The principal categories of travellers according to stated purpose of travel are:

*Permanent movement*; consisting of people arriving with stated intent to settle permanently in Australia, and Australian residents departing with stated intent to reside permanently abroad.

*Long-term movement*; consisting of the arrival of visitors and the departure of residents with stated intent to stay (in Australia or in a country abroad respectively) for twelve months or more; and the departure of visitors and the return of Australian residents who have stayed (in Australia or in a country abroad respectively) for twelve months or more.

*Short-term movement*; consisting of all other movements, including the movement of Australian troops irrespective of period of stay.

The following table gives details for 1976 of overseas arrivals and departures of people whose State of residence had been or was intended to be South Australia. For departures, State of residence refers to the State in which the traveller regards himself as living or as last having lived. State of intended residence for arrivals is derived from the intended

address given by settlers and Australian residents returning after a journey abroad. Particularly in relation to settlers, this information does not necessarily refer to the State in which a traveller will eventually establish a permanent residence.

**Overseas Arrivals and Departures: Mode of Transport and Category of Traveller, State of Residence, South Australia, 1976**

Category of Traveller	By Sea		By Air		Total
	Males	Females	Males	Females	
<b>ARRIVALS</b>					
Assisted settlers . . . . .	92	112	507	481	1 192
Other settlers . . . . .	125	141	995	1 253	2 514
Total permanent . . . . .	217	253	1 502	1 734	3 706
Long-term residents returning . . . . .	273	273	2 000	1 916	4 462
Long-term visitors arriving . . . . .	14	41	612	550	1 217
Total permanent and long-term . . . . .	504	567	4 114	4 200	9 385
Short-term residents returning . . . . .	730	892	31 052	33 956	66 630
Short-term visitors arriving . . . . .	190	243	8 425	9 942	18 800
Total arrivals . . . . .	1 424	1 702	43 591	48 098	94 815
<b>DEPARTURES</b>					
Former settlers . . . . .	192	206	828	941	2 167
Other residents . . . . .	33	34	348	359	774
Total permanent . . . . .	225	240	1 176	1 300	2 941
Long-term residents departing . . . . .	318	374	2 144	2 095	4 931
Long-term visitors departing . . . . .	30	21	565	518	1 134
Total permanent and long-term . . . . .	573	635	3 885	3 913	9 006
Short-term residents departing . . . . .	950	1 184	29 750	34 187	66 071
Short-term visitors departing . . . . .	125	159	8 033	8 240	16 557
Total departures . . . . .	1 648	1 978	41 668	46 340	91 634

### Australian Citizenship

The status of 'Australian Citizen' was created under the *Nationality and Citizenship Act* 1948 which came into force on 26 January 1949. The relevant Act is now the *Australian Citizenship Act* 1948 and under its provisions all migrants, regardless of origin, are required to satisfy uniform requirements for the granting of citizenship.

In the table which follows, numbers of migrants granted citizenship are shown according to previous citizenship. From 1974 citizens of Britain (and colonies) and other Commonwealth nations were included for the first time. Before 1 December 1973 these people were granted citizenship by registration.

There were 9 212 certificates of citizenship granted in 1975 and 8 159 in 1976. The 8 159 certificates issued included 1 136 children. Each certificate covers the new citizen and his/her children who are included under the *Australian Citizenship Act* 1948. At 30 May 1976, 36 879 registered adult aliens were residing in South Australia.

## Previous Citizenship of Persons Granted Australian Citizenship, South Australia

Nationality	1971	1972	1973	1974	1975	1976
Austrian	46	31	25	14	41	29
Britain and colonies, citizens of	..	..	..	238	5 430	5 011
Cypriot	..	..	..	4	57	72
Czechoslovak	19	76	104	57	111	29
Danish	19	12	20	7	18	31
Dutch	180	165	187	108	258	187
Finnish	11	12	18	19	31	27
French	16	32	61	35	91	60
German	161	161	279	132	416	275
Greek	608	626	961	671	1 520	964
Hungarian	52	25	23	22	41	37
Indian	..	..	..	20	99	78
Irish	..	..	..	1	68	60
Italian	534	453	739	435	1 109	1 092
Lebanese	19	27	49	27	95	89
Malaysian	..	..	..	19	60	61
Maltese	..	..	..	3	117	53
New Zealander	..	..	..	1	18	29
Polish	164	120	104	71	109	85
Singaporean	..	..	..	19	16	21
South African	..	..	..	15	65	56
Spanish	29	7	26	27	68	92
Turkish	6	25	32	16	57	30
US American	5	9	22	25	37	20
Yugoslav	207	244	370	224	673	502
Stateless	21	25	49	34	54	33
Other	113	125	143	131	369	272
<b>Total</b>	<b>2 210</b>	<b>2 175</b>	<b>3 212</b>	<b>2 375</b>	<b>11 028</b>	<b>9 295</b>

## Entry for Residence

From January 1975, all people living overseas other than New Zealand citizens who wish to come to Australia as settlers have had to obtain visas for entry. Under a reciprocal agreement with New Zealand, citizens of that country may enter Australia without prior authority and if travelling direct from New Zealand are not required to hold passports.

Australian migration policy enables priority to be given to 'family reunion' which involves spouses and dependent children (normally under eighteen years of age) and aged parents of permanent residents of Australia.

Sponsorship is necessary and nominations may also be accepted for parents of working age provided that they are regarded as able to maintain themselves satisfactorily in Australia without becoming a charge on public funds. People whose entry is approved within the scope of 'family reunion' rules are required to meet only health and character requirements.

Nominations in favour of, applications from, refugees, displaced persons or those whose circumstances warrant special consideration on compassionate grounds may be considered under relaxed eligibility rules and selection standards in the light of their particular circumstances.

Citizens of Britain, Ireland or Canada may be considered for entry on a sponsored or unsponsored basis where close association with a permanent resident of Australia or a

former close association with Australia can be shown. The people concerned must be self-supporting with the intention of retiring in Australia, and be able to meet all migrant standards excluding the need to have specific skills or qualifications.

Applications may be lodged overseas by intending migrants seeking entry on the basis of their having specific skills or qualifications which are recognised in Australia and listed as being in demand in this country. Applicants in this class may also be nominated if they have relatives or friends in Australia and they meet all the requirements laid down for migrant entry. The requirements are that they be in sound health and of good character, have the personal qualities to enable them to fit into the Australian community, and will be economically viable in Australia.

### **Temporary Entry**

People seeking to enter Australia for reasons other than settlement may be considered under Commonwealth Government policies on visitors, students, specialised trainees and temporary residents.

#### *Visitors*

Visas are issued free of charge overseas with minimal formality and delay to genuine applicants seeking to visit Australia for short periods for purposes such as tourism (sightseeing), business (negotiations, discussions, inspections), seeing relatives or other personal contacts and pre-arranged medical treatment. People granted visit visas are made aware through information notes and a declaration they sign as part of the visa application that they are not entitled to undertake employment or studies and that they are expected to leave Australia at the end of their authorised period of stay.

#### *Students and Specialised Trainees*

Young overseas private students may be permitted to enter Australia as bona fide temporary residents to undertake approved tertiary or post-secondary courses not available in their home-lands. Entry for senior secondary studies is not normally granted but may be considered where this can be shown to be desirable as a preparation for acceptable post-secondary studies. As well as meeting other entry requirements, including health, private students must have the capacity to undertake their proposed studies and produce evidence of enrolment and assured maintenance in Australia.

Temporary residence may also be granted to people from overseas for specialised training not available in their homelands and to upgrade their existing occupational experience or skills. Generally, temporary entry for this purpose is for a period up to twelve months and is arranged under sponsorship by the intended training organisation in Australia.

#### *Temporary Residents*

The policy of the Commonwealth Government is that opportunities for employment in Australia are to be available as a first priority to Australian citizens and migrants resident in Australia. Accordingly, temporary entry for employment may be granted only in special circumstances.

Temporary residence visas may be issued to overseas people to enter Australia for limited periods to engage in pre-arranged specialised activities. Those who may receive such visas include senior management personnel for Australian organisations, including branches of overseas enterprises; professional, technical, and other specialist personnel possessing expertise not available locally; academic staff; members of religious organisations; and entertainers and sportsmen, both individuals and groups.



Generally, action to obtain such visas is initiated in Australia by the organisations which seek the temporary entry of the persons concerned. People seeking temporary residence for periods in excess of twelve months are required to satisfy the usual entry requirements, including health.

## 5.5 CHARACTERISTICS OF THE POPULATION

Statistics relating to characteristics of the population of South Australia are derived from information obtained at each population census. The only characteristics available from the 1976 Census in time for this publication are those of age, sex, marital status and birthplace. Information from the 1971 Census on a variety of other topics is shown in the following section. Figures for censuses before 1966 exclude full-blood Aborigines.

### Age Distribution

Details of the age distribution of the population are of particular importance because, as well as revealing changes which have occurred in the age structure from one census to the next, they also supply basic material for the calculation of fertility rates, mortality rates, annuity rates and probabilities of survival.

Age distribution of the population at the two most recent censuses are given in the following table. Large absolute changes in population occurred in the age groups 25-29, which increased by 22 765, and 40-44, which fell by 8 460. The movement in these two age groups is partly because of the post 1939-45 War birth rate increase and the low birth rates of the depression years of the early 1930s respectively. The decrease in the lower age groups can in part be explained by the sharp decline in fertility in recent years.

The median age of the population of South Australia at the 1954 Census was 29.6 years, falling to 28.3 at the 1961 Census and 26.5 at the 1971 Census; this trend had reversed by the 1976 Census when the median age rose to 27.5 years (males 26.8 and females 28.3).

Age Distribution of Population, South Australia  
Censuses 1971 and 1976<sup>(a)</sup>

Age Last Birthday (Years)	30 June 1971			30 June 1976			Increase Persons
	Males	Females	Persons	Males	Females	Persons	
0-4	55 308	52 641	107 949	52 158	49 158	101 316	(-) 6 633
5-9	58 274	55 179	113 453	57 427	54 511	111 938	(-) 1 515
10-14	60 358	58 090	118 448	59 952	56 416	116 368	(-) 2 080
15-19	54 334	52 532	106 866	59 169	57 765	116 934	10 068
20-24	49 144	49 278	98 422	52 104	51 528	103 632	5 210
25-29	40 647	39 450	80 097	51 609	51 253	102 862	22 765
30-34	34 791	34 330	69 121	41 729	41 122	82 851	13 730
35-39	33 572	32 327	65 899	36 009	35 444	71 453	5 554
40-44	37 937	35 319	73 256	33 108	31 688	64 796	(-) 8 460
45-49	37 673	36 551	74 224	37 201	34 603	71 804	(-) 2 420
50-54	31 686	31 256	62 942	35 773	35 101	70 874	7 932
55-59	28 917	28 507	57 424	29 557	29 891	59 448	2 024
60-64	22 295	23 711	46 006	26 188	27 530	53 718	7 712
65-69	16 408	18 467	34 875	19 307	22 305	41 612	6 737
70-74	11 042	15 540	26 582	13 118	16 777	29 895	3 313
75-79	7 236	12 194	19 430	7 672	12 731	20 403	973
80-84	4 277	7 581	11 858	4 149	8 674	12 823	965
85-89	1 690	3 501	5 191	1 893	4 198	6 091	900
90 and over	462	1 202	1 664	586	1 640	2 226	562
Not stated	—	—	—	1 481	2 243	3 724	3 724
Total	586 051	587 656	1 173 707	620 190	624 578	1 244 768	71 061

(a) Population as enumerated, not adjusted for underenumeration.

The next table shows that the proportion of the population under 15 years of age fell markedly between 1901 and 1947, rose significantly between 1947 and 1961 but since then has continued to fall. The proportion of the population 15 years and under 65 years showed an upward trend to 1947, maintained a fairly stable level of approximately 61 per cent, until recently when the upward trend has again become evident. The proportion of the population 65 years and over continued to rise over the period 1901 to 1954, fell slightly between 1954 and 1961 but again rose by 1976.

**Proportional Age Distribution of Population, South Australia  
Censuses 1901 to 1976**

Census	Males			Females			Persons		
	Under 15 Years	15 Years and Under 65	65 Years and Over	Under 15 Years	15 Years and Under 65	65 Years and Over	Under 15 Years	15 Years and Under 65	65 Years and Over
					Per cent				
1901.....	36.0	60.0	4.0	35.9	59.8	4.3	35.9	59.9	4.2
1911.....	31.1	64.4	4.5	31.3	63.8	4.9	31.2	64.1	4.7
1921.....	32.2	62.8	5.0	31.3	63.5	5.2	31.7	63.2	5.1
1933.....	26.8	66.6	6.6	26.0	66.6	7.4	26.4	66.6	7.0
1947.....	25.1	67.0	7.9	23.5	67.0	9.5	24.3	67.0	8.7
1954.....	29.2	62.9	7.9	28.6	61.3	10.1	28.9	62.1	9.0
1961.....	31.4	61.2	7.4	30.7	59.1	10.2	31.1	60.1	8.8
1966.....	30.7	62.4	7.0	29.5	60.5	10.0	30.1	61.4	8.5
1971 (a).....	29.7	63.3	7.0	28.2	61.8	10.0	29.0	62.5	8.5
1976 (a).....	27.3	65.1	7.6	25.7	63.6	10.7	26.5	64.4	9.1

(a) Population as enumerated, not adjusted for underenumeration.

### Sex Distribution

The masculinity of the population of South Australia, *i.e.* the number of males to each 100 females at each census is shown below.

Census Year	Masculinity	Census Year	Masculinity
1844.....	126.1	1901.....	101.5
1846.....	130.4	1911.....	103.1
1851.....	124.3	1921.....	100.6
1855.....	103.8	1933.....	100.3
1861.....	105.3	1947.....	98.2
1866.....	109.2	1954.....	102.7
1871.....	105.6	1961.....	102.3
1876.....	107.0	1966.....	101.0
1881.....	111.4	1971.....	99.7
1891.....	105.6	1976.....	99.3

Before the 1971 Census the only census at which masculinity was less than 100 was 1947. The lower rate at the 1947 Census was partly attributable to the loss of male lives in the 1939-45 War, while the subsequent increase was mainly because of the predominantly male migration inflow of the early post-war period. This is shown very clearly in the following table which gives masculinity in five-yearly age groups at the six Censuses 1947 to 1976. The larger number of males in the younger age groups reflects the fact that the masculinity of births is consistently over 100 while the higher male death rate is reflected in the very low masculinity ratios of the older age groups. In recent years the predominance of females in the upper age groups has more than offset the greater number of males in the younger age groups.

**Masculinity of Population According to Age, South Australia  
Censuses 1947 to 1976**

Age Last Birthday (Years)	Census					
	1947	1954	1961	1966	1971	1976
0-4	104-30	104-46	103-21	105-73	105-07	106-10
5-9	106-18	104-85	104-98	104-01	105-61	105-35
10-14	104-60	105-38	105-75	105-26	103-90	106-27
15-19	100-43	105-27	105-55	104-70	103-43	102-43
20-24	95-29	113-81	109-21	103-05	99-73	101-12
25-29	96-70	111-99	110-23	104-00	103-03	100-69
30-34	99-26	106-65	110-78	105-49	101-34	101-48
35-39	101-27	105-80	105-31	108-13	103-85	101-59
40-44	107-23	107-05	104-86	104-43	107-41	104-48
45-49	99-93	110-99	107-65	104-45	103-07	107-51
50-54	89-83	104-54	106-49	104-43	101-38	101-91
55-59	96-52	91-53	105-42	101-79	101-44	98-88
60-64	93-65	87-94	88-90	97-59	94-03	95-13
65-69	88-05	87-80	77-48	80-52	88-85	86-56
70-74	83-07	81-72	78-01	68-46	71-06	78-19
75-79	77-76	73-53	71-88	69-06	59-34	60-26
80-84	70-90	66-71	62-44	60-33	56-42	47-38
85-89	65-19	62-38	59-06	52-12	48-27	45-09
90 and over	56-17	53-08	40-60	41-25	38-44	35-73
All ages	98-16	102-72	102-32	100-99	99-73	99-30

**Marital Status**

The marital status of the population was ascertained at the censuses, when a statement of never married, married, married but permanently separated (legally or otherwise), widowed, or divorced was required in respect of every person enumerated.

**Marital Status of Population, South Australia  
Censuses 1971 and 1976<sup>(a)</sup>**

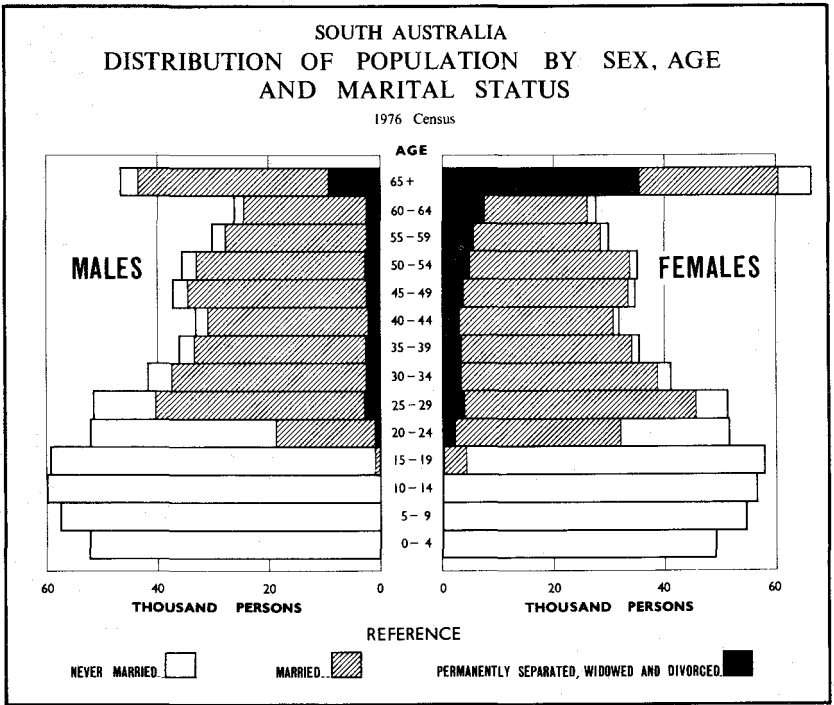
Marital Status	30 June 1971				30 June 1976			
	Males		Females		Males		Females	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Never married:								
Under 15 years of age	173 940	29.7	165 910	28.2	169 458	27.3	159 979	25.6
15 years of age and over	113 130	19.3	85 163	14.5	124 423	20.1	95 330	15.3
Total never married	287 070	49.0	251 073	42.7	293 881	47.4	255 309	40.9
Married	275 465	47.0	276 232	47.0	295 059	47.6	294 405	47.1
Married but permanently separated	6 565	1.1	7 204	1.2	9 793	1.6	11 714	1.9
Widowed	11 364	1.9	46 617	7.9	11 199	1.8	49 697	7.9
Divorced	5 587	1.0	6 530	1.1	8 795	1.4	11 172	1.8
Not stated	—	—	—	—	1 463	0.2	2 281	0.4
Total	586 051	100.0	587 656	100.0	620 190	100.0	624 578	100.0

(a) Population as enumerated, not adjusted for underenumeration.

In 1976 the number of persons who were stated to have been never married represented 44.2 per cent of the total population, a lower proportion than in 1971. Married persons in 1976 represented 47.5 per cent of the total compared with 47.0 per cent in 1971.

At the 1971 Census 80.4 per cent of widowed persons were female and this proportion had increased to 81.6 per cent in 1976. The disparity between the number of widowed males and widowed females is the result of the greater longevity of females coupled with the usually younger age at marriage.

The following diagram shows details of the sex, age and marital status of the population at the 1976 Census.



**Country of Birth**

The Australian-born content of the population in South Australia was 85.7 per cent in 1911, 88.3 per cent in 1921, 90.3 per cent in 1933, and 93.3 per cent in 1947. Overseas migration had lowered the proportion of Australian-born persons to 86.1 per cent by 1954, while in 1976 the proportion was down to 76.3 per cent. The proportion of the population born in the United Kingdom, including the Republic of Ireland, fell from 11.0 per cent in 1911 to 5.1 per cent in 1947 and rose to 12.7 per cent in 1976.

**Country of Birth of Population, South Australia  
Censuses 1966 and 1971<sup>(a)</sup>**

Country of Birth	30 June 1966		30 June 1971		Increase
	Persons	Males	Females	Persons	Persons
Australia .....	849 036	439 365	454 273	893 638	44 602
New Zealand .....	2 188	1 657	1 569	3 226	1 038
Europe:					
United Kingdom and Republic of Ireland ..	122 030	74 929	73 091	148 020	25 990
Germany .....	16 213	7 582	7 828	15 410	(-) 803
Greece .....	14 660	7 716	7 001	14 717	57
Italy .....	30 848	17 675	14 753	32 428	1 580
Netherlands .....	12 443	6 252	5 491	11 743	(-) 700
Poland .....	7 253	4 271	2 787	7 058	(-) 195
Yugoslavia .....	6 352	5 269	3 662	8 931	2 579
Other .....	22 606	12 863	9 952	22 815	209
Total Europe .....	232 405	136 557	124 565	261 122	28 717
Other countries .....	11 355	8 472	7 249	15 721	4 366
Total born outside .....					
Australia .....	245 948	146 686	133 383	280 069	34 121
Total .....	1 094 984	586 051	587 656	1 173 707	78 723

(a) Population as enumerated, not adjusted for underenumeration.

From the 1976 Census preliminary figures for country of birth are Australian born 930 005 persons, United Kingdom and Republic of Ireland born 154 680 persons and all other countries 133 566 persons.

**Period of Residence in Australia**

The post-war migration flow into Australia is shown by the number of persons who have taken up residence in Australia since the late 1940s.

**Period of Residence in Australia of Persons in South Australia  
Censuses 1966 and 1971<sup>(a)</sup>**

Period of Residence in Australia	30 June 1966			30 June 1971			
	Males	Females	Persons	Residents			Visitors
				Males	Females	Persons	Persons
Under 1 year .....	12 235	11 062	23 297	7 686	7 460	15 146	2 123
1 year and under 2 .....	10 332	9 742	20 074	8 309	8 034	16 343	
2 years and under 3 .....	8 834	8 262	17 096	6 950	6 724	13 674	
3 years and under 4 .....	5 961	5 757	11 718	4 962	4 721	9 683	1 103
4 years and under 5 .....	4 349	4 441	8 790	6 032	6 003	12 035	
5 years and over .....	87 919	73 586	161 505	103 438	92 166	195 604	
Not stated .....	1 935	1 533	3 468	6 887	7 005	13 892	466
Born outside Australia .....	131 565	114 383	245 948	144 264	132 113	276 377	3 692
Born in Australia .....	418 631	430 405	849 036	439 365	454 273	893 638	
Total .....	550 196	544 788	1 094 984	583 629	586 386	1 170 015	3 692

(a) Population as enumerated, not adjusted for underenumeration.

At the 1971, and previous censuses, details of period of residence in Australia were sought from overseas born. In 1947 there were 43 552 residents in South Australia (including visitors) who were not born in Australia and only 5 per cent of these had lived in Australia for less than five years. By 1954 the number of such persons had risen to 110 605 of whom 51 per cent had resided in Australia for less than 5 years. By 1971 the number (excluding visitors) had increased to 276 377, but the proportion of those who had lived in Australia for less than five years had fallen to 24.2 per cent.

For the first time, in 1971, overseas born persons were asked to specify whether they were a resident in Australia or a visitor to Australia. At the 1971 Census, of the 280 069 overseas born persons in South Australia, 3 692 (1.3 per cent) were visitors to Australia.

### Nationality

The nationality (or country of allegiance) of the population of South Australia at June 1966 and 1971 is given in the following table. For purposes of this table, Irish nationality is included with British. Decreases in the number of persons of most nationalities in 1971 are partly because of British naturalisation of former aliens. Persons of British nationality represented 99.7 per cent of the State population in 1947, but this proportion had fallen to 94.9 per cent by 1971.

**Nationality (i.e. Allegiance) of Population, South Australia  
Censuses 1966 and 1971<sup>(a)</sup>**

Nationality	30 June 1966		30 June 1971		Increase
	Persons	Males	Females	Persons	Persons
<b>British (b):</b>					
Born in Australia .....	849 036	439 365	454 273	893 638	44 602
Born outside Australia .....	193 955	114 961	104 670	219 631	25 676
Total British .....	1 042 991	554 326	558 943	1 113 269	70 278
<b>Foreign:</b>					
Dutch .....	6 677	2 391	2 226	4 617	(-) 2 060
German .....	5 682	2 173	1 996	4 169	(-) 1 513
Greek .....	9 863	4 400	4 403	8 803	(-) 1 060
Italian .....	17 762	9 006	8 367	17 373	(-) 389
Polish .....	1 611	572	497	1 069	(-) 542
US American .....	816	1 022	731	1 753	937
Yugoslav .....	2 492	2 007	1 577	3 584	1 092
Other .....	5 932	5 095	3 964	9 059	3 127
Stateless .....	1 158	5 059	4 952	10 011	8 853
Total foreign .....	51 993	31 725	28 713	60 438	8 445
Total .....	1 094 984	586 051	587 656	1 173 707	78 723

(a) Population as enumerated, not adjusted for underenumeration.

(b) Includes Irish.

### Religion

Information on the religious affiliations of the population is obtained only at population censuses. There is, however, no legal obligation to answer the question on religion and at the 1971 Census respondents representing approximately 6 per cent of the South Australian population chose not to answer.

The Church of England has always had the greatest number of adherents, its relative importance having been fairly consistent since 1866 when it accounted for 31.8 per cent of answers compared with 24.4 per cent in 1971.

Changes in the pattern of religious affiliation appear to some extent attributable to migratory movements. This is particularly noticeable in the case of Catholics (i.e. persons described as either Catholics or Roman Catholics) who accounted for only 14.3 per cent of the answers in 1933 compared with 20.6 per cent in 1971.

1966 details of religion are excluded from the following table because of lack of comparability in question wording and schedule design between 1966 and 1971. Figures from the 1976 Census relating to religious denomination are not yet available.

**Religious Denomination of Population, South Australia**  
**Census 30 June 1971<sup>(a)</sup>**

Religious Denomination	Males	Females	Persons	Persons Percentage of Total
<b>Christian:</b>				
Baptist .....	10 146	11 864	22 010	1.9
Brethren .....	573	619	1 192	0.1
Catholic, Roman (b) .....	57 861	55 950	113 811	9.7
Catholic (b) .....	63 147	65 208	128 355	10.9
Churches of Christ .....	10 368	12 434	22 802	1.9
Church of England .....	138 951	147 803	286 754	24.4
Congregational .....	6 929	8 309	15 238	1.3
Lutheran .....	30 702	31 939	62 641	5.3
Methodist .....	102 778	112 550	215 328	18.3
Orthodox .....	17 194	15 442	32 636	2.8
Presbyterian .....	19 416	20 504	39 920	3.4
Salvation Army .....	3 838	4 349	8 187	0.7
Seventh Day Adventist .....	1 271	1 604	2 875	0.2
Protestant (undefined) .....	12 921	13 686	26 607	2.3
Other (including Christian undefined) .....	11 342	12 178	23 520	2.0
<b>Total Christian .....</b>	<b>487 437</b>	<b>514 439</b>	<b>1 001 876</b>	<b>85.4</b>
<b>Non-Christian:</b>				
Hebrew .....	552	579	1 131	0.1
Other .....	1 199	853	2 052	0.2
<b>Total Non-Christian .....</b>	<b>1 751</b>	<b>1 432</b>	<b>3 183</b>	<b>0.3</b>
Indefinite .....	2 091	1 660	3 751	0.3
No religion .....	57 868	38 006	95 874	8.2
No reply .....	36 904	32 119	69 023	5.9
<b>Total .....</b>	<b>586 051</b>	<b>587 656</b>	<b>1 173 707</b>	<b>100.0</b>

(a) Population not adjusted for underenumeration.

(b) So described in individual census schedules.

**Educational Attainment***Level of Schooling*

At the 1971 Census information was sought for the first time on the highest level of schooling attended. The following table summarises the details obtained for South Australia.

**Level of Schooling of Population, South Australia**  
**Census 1971<sup>(a)</sup>**

Highest Level Attended	Currently Attending School			Not Currently Attending School		
	Males	Females	Persons	Males	Females	Persons
Child not yet attending school .....				56 767	53 990	110 757
<b>Primary:</b>						
Grades 1, 2, 3 .....	40 144	37 010	77 154	4 674	5 079	9 753
Grade 4 .....	12 881	12 129	25 010	4 819	5 253	10 072
Grade 5 .....	12 989	12 300	25 289	12 054	12 236	24 290
Grade 6 .....	12 671	12 196	24 867	16 043	15 943	31 986
Grade 7 .....	12 384	12 052	24 436	82 239	93 903	176 142
<b>Secondary:</b>						
1st Year .....	12 460	11 636	24 096	28 317	31 023	59 340
2nd Year .....	11 934	11 524	23 458	45 022	49 247	94 269
3rd Year .....	10 147	9 849	19 996	73 368	83 512	156 880
4th Year .....	7 849	6 515	14 364	51 029	49 130	100 159
5th Year .....	3 598	2 523	6 121	60 070	44 690	104 760
<b>Total at school .....</b>	<b>137 057</b>	<b>127 734</b>	<b>264 791</b>			
Other, never attended school .....				2 206	2 920	5 126
Not stated .....				12 386	12 996	25 382
<b>Total population .....</b>	<b>137 057</b>	<b>127 734</b>	<b>264 791</b>	<b>448 994</b>	<b>459 922</b>	<b>908 916</b>

(a) Population as enumerated, not adjusted for underenumeration.

*Educational Qualifications*

At the 1971 Census information was sought on the type of educational qualification obtained. The following table shows that of the total population 15 years of age and over, only 19.5 per cent had obtained any educational qualifications since leaving school.

**Educational Qualifications of Population, South Australia  
Census 1971<sup>(a)</sup>**

Highest Level of Qualification Obtained	Males	Females	Persons
No qualification .....	294 747	376 279	671 026
Trade level .....	76 688	7 595	84 283
Technician level .....	13 331	13 439	26 770
Tertiary (excluding degrees) .....	12 721	12 369	25 090
Bachelor degree, post graduate-diploma or equivalent .....	9 341	3 063	12 404
Higher degree level or equivalent .....	1 477	302	1 779
Qualification not classified by level .....	3 773	8 676	12 449
Inadequately described .....	33	23	56
<b>Total with qualifications .....</b>	<b>117 364</b>	<b>45 467</b>	<b>162 831</b>
<b>Total population 15 years of age and over .....</b>	<b>412 111</b>	<b>421 746</b>	<b>833 857</b>

(a) Population as enumerated, not adjusted for underenumeration.

**Other Characteristics**

Some census details of occupation, occupational status and industry are set out in Part 7.1.



**PART 6**

**SOCIAL ENVIRONMENT**

**6.1 LAW, ORDER AND PUBLIC SAFETY**

**LAW AND ADMINISTRATION**

The law in force in South Australia consists of:

- (i) so much of the common law of England and such English statute law as came into force on the original settlement of the colony in 1836;
- (ii) Acts passed by the Parliament of the State of South Australia, together with regulations, rules, orders, etc., made thereunder;
- (iii) Acts passed by the Commonwealth Parliament within the scope of its allotted powers, together with regulations, rules, orders, etc., made thereunder;
- (iv) Imperial law binding South Australia as part of the British Commonwealth, as part of Australia or as a State—subject, since 1931, to the Statute of Westminster (this relates mainly to external affairs or matters of Imperial concern);
- (v) Case law (this consists of judicial decisions of the English, Commonwealth or State Courts, respectively, and represents an important part of the law in force in South Australia).

The scope of Commonwealth legislation is limited to the subjects specified in the Commonwealth Constitution. In some cases Commonwealth Government powers of legislation are exclusive of, in others concurrent with, those of the State. In all cases of conflict, valid Commonwealth laws override State laws.

## LEGAL PROFESSION

Legal practitioners in South Australia are admitted to the Bar, after the prescribed academic training and service in articles, as barristers and solicitors. This means that the legal profession is not divided, as it is in New South Wales, Victoria and Queensland—a practitioner is entitled to act in either capacity.

The legal profession is controlled by the Legal Practitioners Act, 1936-1977. Rules of Court regulate articles of clerkship and prescribe the conditions of entry to the profession. Practitioners duly admitted to practice, and who are principals, have the right of audience in all courts of South Australia; those other than principals have this right in all courts except the Supreme Court. The Act provides for the hearing of charges of unprofessional conduct by the statutory committee of the Law Society and for its report to be referred to the Supreme Court which may make any order it thinks fit.

In 1976 there were 527 legal practitioners in private practice in South Australia.

## LAW DEPARTMENT

In South Australia the Attorney-General is a Minister of State Parliament. There is a Solicitor-General who, under the Attorney-General, acts as principal legal adviser to the Government.

The Attorney-General is charged with the conduct of business relating to the Supreme Court and inferior Courts as well as statute law revision and consolidation. He also advises Ministers on questions on which his legal opinion is required, initiates and defends proceedings by and against the State and determines whether informations should be laid in cases of indictable offences.

The Attorney-General also administers Acts of Parliament relating to justices, coroners, lands titles, registration of companies and business names, liquor licensing, the Electoral Department and various vocational licences.

The Law Department consists of administrative functions, the Local and District Criminal Courts and Courts of Summary Jurisdiction, the Crown Law Office, the Sheriff's Office, the Coroner's Office, the Government Reporting Division and ancillary legal research services.

## SUPREME COURT

The Supreme Court is the superior court of record in and for the State and is constituted by the Chief Justice and the puisne judges appointed under the Supreme Court Act, 1935-1975. The Supreme Court is a court of law and equity and is vested with jurisdiction in civil, criminal, testamentary, land and valuation, admiralty and appellate causes or matters. The Supreme Court Rules made by the Judges under the power contained in the Act regulate the pleading practice and procedure of the Court in any jurisdiction and the manner in which all suitors' funds are to be dealt with. The officers of the Court are appointed by the Governor on the recommendation of the Public Service Board except that in the case of the masters, the concurrence of the Chief Justice is required.

There are at present eleven judges of the Supreme Court, comprising the Chief Justice, Dr J. J. Bray, QC, nine puisne judges and one acting puisne judge. A judge holds office until the age of seventy years at a salary determined by the Governor. The Court sits in Adelaide, but holds circuit sessions three times each year at Port Augusta and Mount Gambier.

### Civil and Criminal Jurisdiction

Generally speaking, the Supreme Court has unlimited civil and criminal jurisdiction, except in respect of matters which are reserved for the original jurisdiction of Commonwealth Courts. The Court as a rule determines its own practice.

Following the establishment of District Criminal Courts, jurisdiction to hear many indictable offences was vested in these Courts late in 1970.

Crimes and misdemeanours prosecuted by indictment in the Supreme Court must be tried before a jury. The Court has original jurisdiction over all litigious matters arising in the State except where its jurisdiction is excluded by statute. The original jurisdiction of the Court is usually exercised by a single judge sitting in Court or in Chambers. Although it is still possible to have certain civil issues tried before a jury, this has not been done for many years.

The Court has power to restrain inferior courts from acting in excess of their jurisdiction and may, by order, compel them to enforce a legal right. The Court acts as a court of appeal from inferior courts. In proper cases, appeals lie from decisions of the Supreme Court to the High Court of Australia or where not excluded by statute, direct to Her Majesty In Council (*i.e.* the Privy Council).

Details of convictions classified by type of offence for the years 1972 to 1976 are set out in the following table.

**Supreme and Circuit Courts: Persons Convicted, South Australia<sup>(a)</sup>**

Type of Offence	1972	1973	1974	1975	1976
<b>Offences against the person:</b>					
Murder and attempted murder . . . . .	4	5	8	6	9
Other acts causing death, injury or endangering life . . . . .	14	17	24	25	17
Robbery . . . . .	32	40	40	44	38
Offences against females . . . . .	7	16	20	15	18
Unnatural offences . . . . .	2	4	—	—	1
Other offences against the person . . . . .	2	1	3	8	4
<b>Total . . . . .</b>	<b>61</b>	<b>83</b>	<b>95</b>	<b>98</b>	<b>87</b>
<b>Offences against property:</b>					
Breaking and entering and burglary . . . . .	5	16	12	5	12
Embezzlement and stealing by servants . . . . .	—	—	—	1	1
Fraud and false pretences . . . . .	2	2	1	2	1
Other offences against property . . . . .	5	12	13	14	28
<b>Total . . . . .</b>	<b>12</b>	<b>30</b>	<b>26</b>	<b>22</b>	<b>42</b>
<b>Other offences:</b>					
Forgery and offences against the currency . . . . .	10	13	16	21	17
Breach of recognisance . . . . .	6	5	2	—	7
Other . . . . .	16	11	3	14	5
<b>Total . . . . .</b>	<b>32</b>	<b>29</b>	<b>21</b>	<b>35</b>	<b>29</b>
<b>Total (all offences) . . . . .</b>	<b>105</b>	<b>142</b>	<b>142</b>	<b>155</b>	<b>158</b>

(a) In the case of multiple charges, where more than one conviction is recorded, the most serious offence is counted.

The following table gives details of persons tried and convicted for the years 1972 to 1976. In the post-war period to the end of 1977, a total of fifty-six persons were sentenced to death in South Australia; forty-one of these sentences were subsequently commuted. The last execution in South Australia occurred in 1964; no female has been executed in the State since 1873. The Statutes Amendment (Capital Punishment Abolition) Act, 1976 assented to on 23 December 1976 abolished capital punishment in South Australia.

**Supreme and Circuit Courts: Trials and Convictions, South Australia**

Year	Tried		Convicted	
	Males	Females	Males	Females
1972.....	114	12	95	10
1973.....	149	21	125	17
1974.....	153	10	132	10
1975.....	188	9	149	6
1976.....	188	17	143	15

**Testamentary Causes Jurisdiction**

The Supreme Court in its testamentary causes jurisdiction is the only authority competent to grant probate of the will, or administration of the estate, of any deceased person who leaves real or personal property in the State. Except in the case of certain small estates, a grant of representation is generally necessary to obtain title to the property of a deceased person. Pending a grant of probate or administration, all property of a deceased person, in respect of which he died intestate, is vested in the Public Trustee. The Court does not release a grant until succession duty (if any) on the estate has been paid or security accepted for the due payment of duty.

The powers of the Court are exercised by a judge, the Master and the Registrar or Deputy Registrar of Probates. The latter deal with all applications for probate and administration where there is no contention and any matters prescribed by the rules. In cases of doubt or difficulty, the Registrar may obtain the direction of a Judge. The records of the Court are available for public inspection, and copies of wills and other documents may be obtained.

Some statistics of the estates of deceased persons appear in Part 12.3 Other Private Finance.

**LOCAL AND DISTRICT CRIMINAL COURTS**

Local and District Criminal Courts are now constituted under the Local and District Criminal Courts Act, 1926-1976. An amendment to the Act in 1969 increased the jurisdiction of Local Courts, established District Criminal Courts and provided for the appointment of a Senior Judge and other judges.

**Local Courts**

Local Courts were first established in South Australia by an ordinance of 1850 and originally had criminal as well as civil jurisdiction. The Local Courts Act, 1926 effected important alterations in the structure and jurisdiction of Local Courts by abolishing juries in Local Courts and also justices as constituent members of Courts of Full Jurisdiction (except on the application of a party), by conferring equitable jurisdiction on the Local

Court of Adelaide of Full Jurisdiction, and by giving a full appeal to the Supreme Court on facts as well as on law from all judgments, determinations and orders of local courts in actions involving more than \$60.

Local Courts are divided into three groups—Full Jurisdiction, Limited Jurisdiction and Special Jurisdiction. The courts vested with all three jurisdictions are the Local Courts of Adelaide, Berri, Mount Gambier, Port Lincoln, Port Pirie and Whyalla. These courts may hear and determine actions for amounts up to \$20 000. The equitable jurisdiction provisions have also been extended to all Local Courts of Full Jurisdiction. Local Courts of Limited Jurisdiction may hear and determine claims of up to \$2 500, with special provisions for hearing 'small claims' as defined for a pecuniary sum not exceeding \$500. Courts of Special Jurisdiction may hear and determine any unsatisfied judgment summons whatever the amount of the judgment.

### Local Courts: Summary of Transactions, South Australia

Year	Total Claims		Verdicts and Judgments				Service and Execution of Process Act	
	Sum-moneses Issued (a)	Amount Sued For	Verdicts by Trial		Judgment by Default		Sum-moneses for Service out of Jurisdiction	Amount
			Number	Amount	Number	Amount		
		\$'000		\$'000		\$'000		\$'000
1971.....	98 181	13 435	1 916	1 291	45 013	5 501	1 787	978
1972.....	101 780	19 128	1 595	1 346	45 082	4 911	1 755	973
1973.....	95 474	19 660	1 564	1 447	40 657	6 034	752	1 047
1974.....	93 375	24 615	1 678	1 951	36 853	6 264	1 815	1 117
1975.....	84 607	26 109	2 356	4 013	34 079	8 133	1 812	1 722

(a) Including those withdrawn or settled out of Court.

A Local Court of Full Jurisdiction may be constituted of a Judge of the Supreme Court or a Local Court judge, and exercise all jurisdictions under the Act. A special magistrate may exercise limited jurisdiction and special jurisdiction, while two justices of the peace sitting together or one special justice sitting alone may exercise special jurisdiction only.

Any Local Court may reserve any question of law arising in any action for the decision of the Supreme Court, and any party who is dissatisfied with any final judgment, determination or order of a Local Court, if the claim exceeds \$500, may appeal to the Supreme Court. Appeals involving claims under \$500 may be made if leave of the Supreme Court is obtained.

Pursuant to Section 28 of the Act the Governor may appoint the Senior Judge or any other judge to make rules of court for carrying into effect the Act or any other Act conferring jurisdiction upon Local Courts.

### District Criminal Courts

These courts came into operation on 31 August 1970 and have jurisdiction to hear and determine many of the indictable offences that previously could only be tried by the Supreme Court. The State is divided into three proclaimed districts; Central Criminal Court District, Northern Criminal Court District, and the South Eastern Criminal Court District.

The jurisdiction of a District Criminal Court is exercisable by a District Criminal Court Judge sitting in open court, with or without a jury, or in chambers as the case may require. The Crown is represented in District Criminal Courts by the Attorney-General or by counsel appearing on his behalf. The other party may conduct his own case or may engage counsel on his behalf. A person who is not a practitioner of the Supreme Court entitled to practise cannot appear in a District Criminal Court on behalf of any party.

#### District Criminal Courts: Convictions, South Australia

Type of Offence	Convicted			
	1973	1974	1975	1976
<b>Offences against the person:</b>				
Acts (except murder) causing death, injury or endangering life .....	58	53	79	81
Offences against females .....	102	82	44	47
Unnatural offences .....	8	4	11	2
Other offences against the person .....	13	23	15	21
<b>Total .....</b>	<b>181</b>	<b>162</b>	<b>149</b>	<b>151</b>
<b>Offences against property:</b>				
Breaking and entering and burglary .....	430	343	364	456
Embezzlement and stealing by servants .....	6	18	14	11
Fraud and false pretences .....	43	30	32	29
Other offences against property .....	59	68	105	113
<b>Total .....</b>	<b>538</b>	<b>459</b>	<b>515</b>	<b>609</b>
Offences against good order .....	45	38	79	99
Other offences .....	44	63	43	63
<b>Total (all offences) .....</b>	<b>808</b>	<b>722</b>	<b>786</b>	<b>922</b>

Appeals against verdicts and sentences of District Criminal Courts are to the Full Court.

Pursuant to Section 321 of the Act the Senior Judge and two other judges may make rules of court for carrying into effect the district criminal court provisions of the Act.

#### COURTS OF SUMMARY JURISDICTION

Courts of Summary Jurisdiction are held in all major towns to hear criminal cases. In offences of dishonesty their jurisdiction is in most instances confined to cases where the property value is not more than \$400, and the limit of their jurisdiction as to penalty is imprisonment for two years. Their procedure is regulated by the Justices Act, 1921. They are presided over, either by a special magistrate, a special justice or by two justices of the peace, with the more serious causes generally being heard by a special magistrate.

Special magistrates are appointed under the Justices Act and the Local Courts Act, and each appointment must be approved by the Chief Justice. Generally appointees are required to be practitioners of the Supreme Court who have been practising for some years.

**Courts of Summary Jurisdiction (Magistrates Courts), Persons Convicted  
South Australia<sup>(a)</sup>**

Offence	1971-72	1972-73	1973-74	1974-75
Against the person .....	697	584	718	888
Against property:				
Burglary and housebreaking .....	48	22	1	—
Larceny (various) .....	1 906	1 865	1 996	2 223
Other .....	1 546	1 381	1 254	1 430
Against morality .....	288	185	167	146
Against good order:				
Drug offences .....	121	116	150	274
Drunkenness .....	9 975	8 314	7 973	6 736
Unlawfully on premises .....	348	307	258	307
Vagrancy .....	520	308	206	152
Other .....	2 930	2 092	2 200	2 731
Other, relating to:				
Road Traffic and Motor Vehicles Acts .....	71 255	59 303	57 518	70 732
Licensing Act .....	661	495	250	299
Community Welfare Act .....	1 063	1 267	1 523	565
Police Offences Act .....	1 295	1 055	1 020	1 091
Local Government Act .....	5 679	5 293	5 620	6 836
Broadcasting and Television Act .....	2 883	2 250	2 919	608
Income Tax Assessment Act .....	2 637	1 452	1 591	1 702
Other .....	8 364	7 779	7 673	7 682
<b>Total persons convicted:</b>				
Males .....	101 323	84 143	81 812	92 296
Females .....	10 893	9 925	11 225	12 106
<b>Total .....</b>	<b>112 216</b>	<b>94 068</b>	<b>93 037</b>	<b>104 402</b>

(a) Excludes juveniles. Where multiple charges have been laid against one individual at the same time each type of offence has been counted separately.

Offences under the Road Traffic and Motor Vehicles Acts accounted for 68 per cent of total convictions in 1974-75—this compares with 55 per cent in 1964-65 and 50 per cent in 1954-55.

### JUVENILE COURTS

Proceedings in juvenile courts are regulated by the Juvenile Courts Act, 1971-1975 which came into force on 1 July 1972. The Senior Judge appointed under this Act exercises administrative control over juvenile courts throughout the State.

Juvenile courts may be presided over by a judge, a special magistrate or, in certain circumstances, either a special justice or two justices of the peace who have been approved as suitable to exercise this jurisdiction. The courts, if constituted of a judge or a special magistrate may try any offence (except homicide) committed by a juvenile. Limitations are placed on the jurisdiction of special justices or two justices of the peace.

Juvenile offenders appearing before courts are classified into two basic groups according to the age of the child. Children under sixteen years are charged with being in need of care and control as a consequence of an alleged offence. When dealing with children in this group the court may discharge the child, release the child on a bond with or without supervision, or place the child under the care and control of the Minister of Community Welfare with or without an order committing the child to an institution. A child under

sixteen cannot be convicted of an offence. Children over sixteen may be charged with an offence and dealt with as above with or without conviction; in addition the Act provides that a fine may be imposed and compensation or restitution may be ordered. Juvenile courts also exercise jurisdiction over truants, neglected children and uncontrolled children.

**Juvenile Offenders: Offences Proved in Juvenile Courts and Aid Panels  
South Australia<sup>(a)</sup>**

Type of Offence	Juvenile Courts		Juvenile Aid Panels	
	1975-76	1976-77	1975-76	1976-77
Homicide .....	3	2	—	—
Assault .....	267	270	80	82
Robbery .....	47	21	4	6
Rape .....	14	16	—	1
Other heterosexual offences .....	75	75	27	9
Breaking and entering .....	1 220	1 156	461	592
Vehicle theft .....	1 130	804	201	229
Other theft .....	1 510	1 429	2 365	2 391
Wilful damage .....	323	361	282	297
Receiving .....	117	107	114	129
Fraud .....	206	367	69	103
Drug offences .....	131	243	8	20
Driving and traffic (b) .....	815	735	851	792
Liquor .....	561	464	46	49
Unlawfully on premises .....	156	145	132	154
Indecent behaviour .....	107	70	29	25
Drunk, disorderly .....	667	672	138	126
Other .....	745	706	288	353
<b>Total offences .....</b>	<b>8 094</b>	<b>7 643</b>	<b>5 095</b>	<b>5 358</b>
Male .....	7 224	6 825	3 743	4 043
Female .....	870	818	1 352	1 315
<b>Individual offenders:</b>				
Male .....	3 040	2 803	2 360	2 476
Female .....	534	493	1 028	1 027

(a) Under 18 years. Excludes truants and children found to be neglected, destitute or uncontrolled.

(b) Excludes most minor traffic offences.

In most cases when a child under sixteen years is alleged to have committed an offence, the matter is referred to a non-judicial body called a juvenile aid panel for consideration. Difficult cases may be referred by the panels to the juvenile courts. For further details see Part 6.6, page 282.

### THE LICENSING COURT

The licensing of hotels and the issue of liquor licences and permits is governed by the Licensing Act, 1967-1976 under which is constituted a Licensing Court consisting of a Licensing Court Judge, Special Magistrates designated by the Governor as members of the Licensing Court, and Licensing Court Magistrates. The classes of licences that may be granted are:



- |  |                             |
|--|-----------------------------|
| (a) Full publican's licence.           | (j) Packet licence.         |
| (b) Limited publican's licence.        | (k) Railway licence.        |
| (c) Wholesale storekeeper's licence.   | (l) Restaurant licence.     |
| (d) Retail storekeeper's licence.      | (m) Cabaret licence.        |
| (e) Wine licence.                      | (n) Theatre licence.        |
| (f) Brewer's Australian ale licence.   | (o) Special licence.        |
| (g) Distiller's storekeeper's licence. | (p) Twenty-litre licence.   |
| (h) Vigneron's licence.                | (q) Hotel broker's licence. |
| (i) Club licence.                      |                             |

Fees for licences are paid in accordance with the amount of liquor purchased (or in some cases sold) during the preceding twelve months and at present, in the case of the retail licences, is calculated at 8 per cent of the amount of purchases.

In December 1976, legislation was enacted to authorise discretionary hotel bar trading hours from 5 a.m. to 12 midnight, Monday to Saturday, and to fix obligatory trading hours, Monday to Saturday from 11 a.m. to 8 p.m.

In the case of a full publican's, limited publican's and restaurant licence, liquor may be sold and disposed of in the dining area at any time on any day with or ancillary to *bona fide* meals.

The Court may upon the granting or renewal of a full publican's licence, having regard to the needs of the public, exempt the holder of the licence from the obligation to supply lodging.

The following table shows the number of licences and permits issued during the years ended 30 June 1973 to 1977.

#### Liquor Licences and Permits, South Australia

Licence or Permit	Year ended 30 June				
	1973	1974	1975	1976	1977
<b>Licence:</b>					
<b>Publican's:</b>					
Full .....	600	601	602	603	603
Limited .....	44	48	55	55	58
Storekeeper's (a) .....	174	180	183	189	190
Vigneron's .....	55	61	67	75	86
Club .....	133	159	177	185	199
Restaurant .....	121	137	151	171	202
<b>Permits:</b>					
Special licensed premises .....	6 730	6 673	5 634	4 548	3 451
Special unlicensed premises .....	15 652	16 953	17 071	17 654	17 797
Booth .....	7 653	7 877	7 466	7 903	8 221
Club .....	1 888	2 097	2 036	2 041	2 092
Other .....	521	914	744	1 225	1 078

(a) Covers wholesale, retail and distillers.

Permits may be granted under certain circumstances to extend the trading hours of licensed premises and to allow the sale, supply or consumption of liquor in unlicensed premises. Permits may be granted to clubs, for periods of up to one year, for the sale and supply to members for consumption on club premises—at 30 June 1977, 783 of these permits were current. Clubs whose takings from the sale of liquor exceed \$25 000 in any one year are not eligible for a permit but are required to apply for a club licence.

## BANKRUPTCY

Since 1928 bankruptcy has been under Commonwealth Government jurisdiction. Under the *Bankruptcy Act* 1966 South Australia is a bankruptcy 'district' and jurisdiction is exercised through the Court of Insolvency of the State of South Australia exercising Commonwealth Government jurisdiction in bankruptcy.

A debt of at least \$500 is necessary before a creditor may commence bankruptcy proceedings. Preferential creditors include employees for amounts owing in respect of wages and salaries, worker's compensation, long service leave, annual leave, recreation leave or sick leave, and the Commissioner of Taxation for unpaid tax on one year's income.

A bankrupt who has not previously been discharged is automatically discharged after five years unless an objection is filed with the Registrar in Bankruptcy.

## Bankruptcies: Number, Liabilities, Assets, South Australia

Year	Bankruptcies and Orders for Administration of Deceased Debtors' Estates			Compositions, Deeds of Arrangement and Deeds of Assignment			Total Debtors
	Number	Assets	Liabilities	Number	Assets	Liabilities	
		\$	\$		\$	\$	
1972-73 .....	528	1 176 909	2 821 609	26	212 981	498 022	554
1973-74 .....	358	1 049 624	2 036 653	15	375 849	433 540	373
1974-75 .....	427	1 580 680	3 304 232	10	718 437	805 578	437
1975-76 .....	341	2 894 881	3 646 832	10	394 858	528 012	351
1976-77 .....	448	3 705 374	5 993 902	8	345 840	365 942	456

## JURY SYSTEM

The procedure in relation to juries is governed by the *Juries Act*, 1927-1976.

Indictable offences are tried before a Judge and twelve jurors sitting in the criminal jurisdiction of either the Supreme Court or District Court, depending on the gravity of the offence. In South Australia, for many years juries have not officiated when civil causes were being tried.

Jury districts for the metropolitan and certain country areas are fixed by proclamation pursuant to the *Juries Act* and consist of a number of subdivisions of the House of Assembly electoral districts. Legislation passed in 1965 provided for women to serve on juries as well as men, and, with certain exceptions, all persons over the age of twenty-five and under sixty-five who are enrolled as House of Assembly electors within the proclaimed jury districts are qualified and liable to serve as jurors.

Persons exempted from liability to serve are listed in the third schedule to the Act and include judges, Members of Parliament, certain public officers, members of the defence forces, clergymen, legal practitioners, magistrates, university professors, police officers, doctors, dentists, pharmacists, opticians, physiotherapists, veterinary surgeons, newspaper editors and school teachers. Women automatically exempted include nurses, and the wives of judges, magistrates and police officers.

A jury list is compiled annually for each jury district. The names of persons included in the list are selected by computer process from the appropriate House of Assembly electoral rolls at the direction of the Sheriff. The jurors summoned to hear and determine an issue are later selected by ballot. Accused persons and the Crown each have the right to

challenge three jurors without assigning reasons. About 1 000 persons serve on juries each year in South Australia. A jury pool system was instituted in 1974 and juries now may be required to serve in both the Supreme and District Criminal Courts during their month of service.

### STATE INDUSTRIAL TRIBUNALS

Industrial arbitration in South Australia was inaugurated in 1894 by the establishment of Boards of Conciliation. Since then the system has undergone fundamental changes from time to time and the present basis is the Industrial Code, 1967-1972, under which the Industrial Court, Industrial Commission, Conciliation Committees and Commissioners have been established. For details on the composition of these bodies and their functions see Part 7.2.

### LEGAL SERVICES COMMISSION

The Legal Services Commission, constituted under the provisions of the Legal Services Commission Act, 1977 is responsible for the provision of all legal assistance in South Australia. Legal services are provided by both the salaried staff of the Commission and by private legal practitioners engaged by the Commission.

Before the establishment of the Legal Services Commission in 1977, the Law Society of South Australia administered the Legal Assistance Scheme which had been operating since 1933. This voluntary Scheme had legislative recognition in the Legal Practitioners Act, 1936-1977. It was designed to ensure that no person who was deserving of legal assistance should be deprived of it by lack of finance.

The South Australian Government made an annual grant to the Law Society to assist in the administration of the Scheme and, since 1960, the Government had made special annual grants to partially recompense legal practitioners acting in assigned cases.

In addition, the Law Society conducted an after hours advisory service for preliminary advice at no cost to pensioners and students, and to others at a nominal charge.

### CONSUMER PROTECTION

Consumer protection in South Australia, in common with the other States, is a responsibility divided between the Commonwealth and State Governments. The major arm of Commonwealth responsibility is the Trade Practices Commission; the relevant State instrumentality is the Department of Public and Consumer Affairs. In practice, the Trade Practices Commission intervenes only in multi-state matters or where exemplary legal action is called for. The State looks into matters involving consumer redress.

The South Australian Department of Public and Consumer Affairs was formed in 1976 from units of several existing departments. Four branches of the new Department are involved in consumer protection work. The Consumer Affairs Branch, headed by the Commissioner for Consumer Affairs (formerly known as the Prices Commissioner), deals with most general consumer complaints, and generally supervises sixteen Acts, including the Consumer Transactions, Manufacturers Warranties, Door to Door Sales, Unfair Advertising, Defective Houses, Second-hand Motor Vehicles, Consumer Credit Reports and Prices Acts.

The following table gives details of complaints investigated by the Commissioner for Consumer Affairs and the Consumer Affairs Branch during 1977.

**South Australian Department of Public and Consumer Affairs, Consumer Affairs  
Branch, Formal Complaints Investigated, 1977**

Particulars	Number of Complaints	Percentage of Total
		Per cent
Faulty goods and services .....	3 119	37.72
Unfair dealing .....	1 654	20.00
Excessive charges (non-controlled) .....	777	9.40
Second-hand Motor Vehicles Act .....	893	10.80
Consumer Credit Act .....	532	6.43
Unfair Advertising Act .....	429	5.19
Prices Act, Section 25 .....	294	3.56
Door to Door sales legislation .....	208	2.52
Unordered Goods and Services Act .....	73	0.88
Prices Act, Sections 33a, 33d, 33e .....	6	0.07
Other Acts .....	24	0.29
Miscellaneous .....	260	3.14
<b>Total complaints .....</b>	<b>8 269</b>	<b>100.00</b>

The Standards Branch, headed by the Commissioner for Standards, specialises in matters relating to weights and measures, packaging and labelling. Included in the Standards Branch's administration are seven Acts, including the Packages, Goods (Trade Descriptions), Flammable Clothing and Trade Measurements Acts.

The Builders' Licensing Board licences and supervises the conduct of builders offering their services for building work in excess of \$250 (\$100 if the work consists of painting only).

The Commercial Tribunals Branch comprises some seven licensing and disciplinary authorities supervising various industries, including auctioneers, credit providers, land agents and used car dealers.

Co-operation between the Commonwealth and South Australian authorities on a day-to-day basis ensures that overlapping and duplication of activities is kept to a minimum.

#### PUBLIC TRUSTEE

The office of Public Trustee was established in 1881 and is now regulated by the Administration and Probate Act, 1919-1975. It provides a service to the public in the administration of estates and the protection of infants and absentee beneficiaries in estates administered by private administrators. A person may appoint the Public Trustee to be the executor and trustee of a will or as trustee of any disposition of property creating a trust.

The Public Trustee, where directed by the Court, becomes administrator of certain deceased estates; acts as guardian of certain infants; controls a protected person's property under the Aged and Infirm Persons' Property Act, 1940-1975; and receives, invests and distributes for the benefit of widows and minor dependants, amounts awarded under the Workmen's Compensation Act, 1971-1974.

Under the Mental Health Act, 1977 the Public Trustee has control of the estates of some of the patients who have been admitted to Government mental hospitals, and may be appointed to act for the estate of any person found to be of unsound mind.

## THE SOUTH AUSTRALIAN POLICE FORCE

The police force was first established in South Australia in 1838 and has been administered by a Commissioner of Police since 1840. Since that time the Force has grown to such an extent that a Deputy Commissioner and three Assistant Commissioners have been introduced. Each Assistant Commissioner has control of one of three major areas of the Force which have been designated 'Crime and Services', 'Operations' and 'Personnel and Training'. The number of police officers rose steadily from 127 in 1851 to a peak of 802 in 1929, fell to 674 in 1943 and has since risen steadily to 2 718 in 1977.

Women police officers were introduced in 1915 giving the Force the distinction of being the first, in the then British Commonwealth, to do so. In that year two female officers were sworn in having equal rights with the male officers. By 1974 the number of women police officers had grown to thirty-six and at 30 June 1977 the total number was 116.

The maintenance of law and order and the reduction of opportunities for criminal activity are the main functions of the uniformed branches. At 30 June 1977 there were thirty-six metropolitan regional and 109 country police stations and offices.

Police Personnel, South Australia<sup>(a)</sup>  
At 30 June

Personnel	1973	1974	1975	1976	1977
Commissioned officers . . . . .	69	81	89	94	101
Non-commissioned officers . . . . .	539	581	645	677	718
Constables . . . . .	1 582	1 629	1 739	1 787	1 899
<b>Total active police force . . . . .</b>	<b>2 190</b>	<b>2 291</b>	<b>2 473</b>	<b>2 558</b>	<b>2 718</b>
Persons per active member . . . . .	556	540	506	493	473

(a) Active police force strength. Excludes trainees and cadets, women police auxiliaries, civil staff, etc.

The Traffic Region commenced a process of decentralisation in late 1977. When completed, traffic police will be attached to each metropolitan region instead of at one central base. The duties of the Traffic Region include policing the general regulations relating to road use and control of traffic, improving road safety by ensuring the safe and efficient flow of traffic, testing vehicles for roadworthiness, lecturing on road courtesy and safety and visiting schools in conjunction with an education program. A Traffic Intelligence Centre, using information gained from accident statistics, assists in the correct placement of speed detection units in relation to accident action centres.

The Criminal Investigation Branch in Adelaide comprises a compact specialist unit responsible for the investigation of major crime or crimes involving an unusual expertise. To ensure that the activities of the suburban detective units are co-ordinated, a Crime Intelligence Unit at Police Headquarters studies crime trends. The Crime Director, a senior Commissioned Officer, is responsible for recommending the allocation of additional resources to any units requiring assistance. Country areas are serviced by detectives based at selected centres. Auxiliary services provided by the Modus Operandi, Records, Fingerprints, Photographic, Documents, Ballistics, Crime Scene and Laboratory Sections are essential aids to criminal investigations.

In 1959, a Police Emergency Operations Group consisting of Cliff Rescue, Underwater Recovery, Sea Rescue and Emergency Squads, was constituted under the direction of a Superintendent who is now Director of the State Emergency Service.

The Commissioner of Police is responsible for the Country Fire Services, operations of which are outlined on page 171.

The changing police role in the community, together with continual changes in law and investigational techniques, has resulted in special emphasis being placed upon the training of all personnel within the Force. There are two levels of recruitment. Cadets are enrolled at seventeen years of age and are given a two-year course of academic and practical instruction before graduation to operational duties. This two-year course replaces the previous three-year course and commenced in June 1977. Full integration of both courses will be completed by June 1979. Adults are enlisted between the ages of twenty and thirty years and are given twenty-two weeks instruction; they then serve a probationary period on general duties before being permanently appointed. All personnel are required to undergo refresher training at selected intervals of service. In addition, courses are regularly conducted for such specialist appointments as prosecutors, detectives, technicians, drivers and instructors. Commissioned and non-commissioned officer training, in addition to external tertiary studies are provided. At 30 June 1977 there were 455 cadets, including five trade apprentices, and 59 adult recruits in training. Formal instruction was given to 430 members in refresher or specialist courses during 1977.

The following table gives details of the revenue and expenditure of the South Australian Police Force in recent years.

**South Australian Police Force, Revenue and Expenditure<sup>(a)</sup>**

Year	Expenditure			Revenue	Net Cost	
	Wages and Salaries	Other	Total		Total	Per Head
	Dollars					
1972-73 . . . . .	14 172 215	2 412 472	16 584 687	1 477 843	15 106 844	12.48
1973-74 . . . . .	18 131 664	2 840 914	20 972 578	1 638 929	19 333 649	15.76
1974-75 . . . . .	26 449 889	3 791 410	30 241 299	2 206 690	28 034 609	22.49
1975-76 . . . . .	34 076 299	5 776 230	39 852 529	2 364 170	37 488 359	29.83
1976-77 . . . . .	40 763 959	6 981 012	47 744 971	(b)3 076 243	44 668 728	34.98

(a) As reflected in Consolidated Revenue Account only—capital expenditure is met from Loan Fund.

(b) Includes \$2 306 009 recouped from Highways Fund for traffic and road safety purposes which became payable under an amendment to the Highways Act from 1 July 1971.

In 1971 the use of light aircraft was instituted by the Department for the transport of personnel and prisoners throughout the State. Two twin-engined aircraft are used; one aircraft being based in Adelaide and the other at Woomera. The primary role of the Woomera based aircraft is to provide a more frequent police presence on the Aboriginal Reserves in the north-west of the State.

An extensive re-organisation of the general police in the metropolitan area was begun early in 1973. This involved the division of metropolitan Adelaide into three territorial regions, each commanded by a Chief Superintendent, the implementation of a sector system within these regions and the restructuring of patrol areas to give emphasis to personal contact between the patrol force and the public. Portable UHF radio hand sets have been introduced to enable mobile and foot patrols to be in contact with each other and with their patrol base. In certain areas, equipment code named TARTA, has been developed to allow the patrolling officer to both make and receive telephone calls from the police vehicle via the Telecom exchange system. Telex and facsimile machines are also in

use at certain main stations and within Police Headquarters. Developments are now being made to integrate the communications facilities with a computerised record retrieval system thereby greatly increasing the effectiveness of the force.

Other innovations introduced are a crime prevention unit, a criminal intelligence centre and regional crime collators. A tactical reserve designated as a 'Task Force' functions under the command of the metropolitan Senior Chief Superintendent who co-ordinates the activities of the metropolitan regions. Members of the Task Force receive special training to deal with extraordinary emergencies and provide supplementary assistance at special events.

Command Planning Units have been established in major areas of the Department to examine and research new trends in police activities, extended manpower and equipment requirements, training needs, procedures and other police related matters.

A computer system section is also being used to explore the ever widening field of the computer and its application in police oriented tasks.

The Police Community Affairs and Information Service was formed in 1973 to foster better relations between the police and the general public. An Aboriginal Liaison Officer (a police officer) is attached to this Section and deals directly with police/Aboriginal relations. In July 1975, a new branch known as the Inspectorate was set up primarily to co-ordinate planning, to inspect operational units and to investigate complaints.

Early in 1974, a Dog Squad of six handlers and six dogs became operational; this squad has since doubled in size. As well as carrying out foot and mobile patrol duties, the squad is used in tracking and drug searches.

Since the opening of the Eyre Highway in September 1976, two fully- equipped four-wheel drive vehicles have been used for daily patrols between Ceduna and the West Australian border.

### CORRECTIONAL SERVICES

There were eight gaols and prisons and nine police prisons administered by the South Australian Department of Correctional Services during 1976-77. Adelaide Gaol is a holding centre for remand and short-term sentenced prisoners. Yatala Labour Prison, South Australia's largest prison, provides for long-term male prisoners under maximum, medium and minimum security ratings. Adjacent to Yatala is the Northfield Security Hospital which was officially opened in November 1973 to accommodate criminal mental defectives. This modern hospital is staffed by trained medical personnel and provides specialised treatment programs for both males and females. Port Augusta Gaol, Port Lincoln Prison and Mount Gambier Gaol are medium security prisons which accommodate male and female prisoners. Cadell Training Centre on the River Murray is a dual purpose institution which operates as a pre-release centre for long-term prisoners as well as accommodating medium security short-term prisoners. The Women's Rehabilitation Centre at Northfield is a multi-purpose prison for females from all parts of the State. The nine police prisons serve as short-term detention centres for both males and females, and are mainly situated in the more remote country areas.

In common with other States and countries the emphasis in South Australian prisons is on rehabilitation. Industrial and trade training in various fields is available throughout the institutions, enabling prisoners to be prepared for ultimate outside employment. A wide range of correspondence courses are available through the colleges of advanced education and the South Australian College of External Studies under the supervision of the prison education officers. Special migrant and remedial classes are also conducted by the Education Division of the Department. An assessment panel ensures that prisoners

servicing long-term sentences are correctly assessed for education, employment, social and other training purposes. In a wide range of matters affecting the well-being and after-care of prisoners and their families, the prison administration is assisted by chaplains, the Prisoners Aid Association, the Salvation Army and other voluntary organisations. Community services rendered by prisoners include the provision of emergency fire service units and the production of soft toys for children's homes.

The Probation and Parole Branch continues to expand, both in staff numbers and in the decentralisation of services. District offices are located at Port Adelaide, Elizabeth, Gilles Plains, Christies Beach and Glenelg in the metropolitan area and at Cadell, Gladstone, Whyalla, Port Augusta, Port Lincoln and Mount Gambier in the country. The Branch is responsible for providing supervision and social casework services to probationers and parolees. Social work graduates are providing a more professional social work service, including a wider range of treatment and management alternatives for offenders. Provision of pre-sentence social reports to the courts remains one of the major functions of the Branch.

#### Prisons: Persons under Sentence, 30 June 1976

Major Offence	Males	Females	Persons
Homicide .....	60	—	60
Assault .....	80	3	83
Robbery and extortion .....	34	—	34
Fraud, forgery and misappropriation .....	27	1	28
Theft, breaking and entering .....	225	—	225
Property damage .....	3	3	6
Driving and related offences .....	64	—	64
Other offences .....	92	4	96
Total .....	585	11	596

### PUBLIC SAFETY FIRE SERVICES

#### The Fire Brigades Board

Provision for the establishment and maintenance of fire brigades in South Australia under the control and management of the Fire Brigades Board was first instituted in 1882.

In accordance with its general duty of extinguishing fires and protecting life and property in case of fire, the Board maintains suitably equipped fire brigades in proclaimed fire districts in the Adelaide Metropolitan Area and in country towns. At 30 June 1977 there were thirty-nine fire brigade stations of which seventeen were metropolitan and twenty-two were country. During the year 1976-77 these brigades received 6 420 calls of which 595 were false and malicious calls. Some of these brigades are manned by permanent personnel and others by auxiliary firemen, there being at 30 June 1977, 551 officers and firemen and 125 auxiliary firemen.

In addition to its main function, the Board provides a service section for the regular maintenance of private fire equipment installed in public and private premises, and makes its officers available for inspection of premises and for advice on fire protection generally, as well as to demonstrate the use and handling of various types of first-aid fire equipment.

The Fire Brigades Act, 1936-1976 provides that the expenses and maintenance of brigades be defrayed in the proportion of one-eighth by the State Treasury, three-quarters by insurance companies and one-eighth by the municipalities and district councils concerned.



Total contributions for 1976-77 were \$11 579 000 made up as follows; insurance companies \$8 684 000; municipalities and district councils \$1 447 000; and State Treasury \$1 447 000.

### South Australian Country Fire Services

The South Australian Country Fire Services (CFS) is a voluntary fire fighting organisation affording urban and rural fire protection to an area of 886 000 square kilometres, or approximately 90 per cent of South Australia.

The CFS had its beginning in 1939 as the South Australian Emergency Fire Services, a branch of Civil Defence formed during the 1939-45 War. When Civil Defence was disbanded, the Emergency Fire Services was developed into a volunteer country fire service to protect those areas outside the districts covered under the Fire Brigades Act, 1936-1976.

#### South Australian Country Fire Services

Particulars	1974	1975	1976	1977
Strength of service at 30 June:				
		Number		
Affiliated organisations .....	441	445	454	456
Volunteer members .....	9 000	9 500	10 000	10 500
Fires attended in twelve months ended 30 June:				
Number of fires;				
Urban type .....	280	282	327	320
Bush .....	657	1 317	1 333	935
Hectares destroyed in bush fires ...	53 081	3 053 443	285 190	202 455
Financial losses;		Dollars		
Urban type .....	3 069 192	791 446	1 364 783	1 016 726
Bush .....	133 515	1 258 906	901 442	186 985

The South Australian Country Fire Services (CFS) is constituted as a statutory body under the Country Fires Act, 1976. The Act was assented to on 23 December 1976 and proclaimed on 2 June 1977, with the essential administrative sections becoming active and the remaining provisions being suspended until the Board is equipped to administer their functions. The Country Fire Services Board which held its inaugural meeting on 14 June 1977 consists of ten members appointed by the Governor.

The Act provides for the establishment of the 'Country Fire Services Fund' to be applied by the Board in the administration of the Act. The Fund is credited with moneys appropriated by Parliament and contributions by fire insurers. Grants will be paid from the Fund to subsidise expenditure by local government authorities and CFS organisations on the purchase and maintenance of fire fighting equipment.

A modern headquarters-complex, which is under construction at Keswick, will function as the administrative and co-ordinating centre for the South Australian Country Fire Services.

### LIFE SAVING

#### The Royal Life Saving Society—Australia

The South Australian Branch of the Royal Life Saving Society—Australia was established in 1909 and the formation of clubs at various beaches followed. In 1952 an agreement was made with the Surf Life Saving Association whereby the Surf Life Saving Association undertook responsibility for life saving on ocean beaches, the Royal Life Saving Society retaining responsibility in all other areas of activity.

In South Australia the Society has developed into a large teaching body administered by a Council. The Society gives instruction to schools and other interested bodies in the various methods of life saving, including the current methods of artificial respiration. This is done by honorary instructors and examiners. It also conducts life saving patrols (water and beach) at the West Lakes waterway on weekends and public holidays during the warmer months. In the winter months the emphasis is on talks and demonstrations on resuscitation, but during the swimming season weekly life saving instruction and examination, and life saving demonstrations are conducted throughout the State. Awards totalling 27 643 were issued to candidates who passed the various examinations in the 1976-77 season.

The honorary work of the Society is financed mainly by grants made by the Commonwealth and State Governments, and by donations.

### **The Surf Life Saving Association**

The South Australian State Centre of the Surf Life Saving Association of Australia was formed in 1952, with the co-operation of the South Australian Branch of the Royal Life Saving Society and the Surf Life Saving Association of Australia.

The Society has eighteen affiliated clubs situated at Semaphore, Grange, Henley, West Beach, Glenelg, Somerton, Brighton, Sealcliff, Christies Beach, Port Noarlunga, Southport, Moana, Chiton Rocks, Port Elliot, Whyalla, Taperoo Beach, Hallett Cove and Port Lincoln.

Voluntary members give many hours to patrolling their respective beaches on weekends and public holidays from the beginning of November until the end of March. At 30 June 1977 there were 1 502 members in Association clubs. From 1952 to the end of the 1976-77 season, 2 050 rescues were performed with no loss of life on patrolled South Australian beaches. During this same period many hundreds of persons received first-aid treatment.

The South Australian State Centre receives an annual grant from the State Government and individual clubs have been assisted with subsidies when building their club houses.

### **'Learn to Swim' Campaign**

Vacation swimming classes organised by the Education Department were first established on an extensive scale in January 1956. Thirty-six country and fourteen metropolitan swimming centres were set up and over 7 000 children enrolled for instruction. The January 'Learn to Swim' campaign has been continued in each subsequent year and has grown steadily; in the summer vacation of 1976-77, 133 country and eighty-one metropolitan swimming centres were used, and the total student enrolment was approximately 36 500. Instruction is provided over a period of ten days by qualified swimming instructors. Instruction in Surf Life Saving was offered for the first time in 1972 at eleven metropolitan and four country beaches, but to date the program has had only limited success.

Swimming classes have also been conducted in school time since October 1954; 53 000 and 55 000 children were enrolled in these classes in the first and third terms of 1977 respectively.

Although swimming is still a major part of the program, the Education Department has introduced a number of water safety skills into the 'Learn to Swim' campaign. All instructors are trained to teach water safety, life saving and swimming by the most up-to-date methods available.

Special Aquatic Centres commenced in 1975 with one centre based at Victor Harbor. In 1977, nine centres were established and offered to children such activities as surfing, canoeing, skiing, snorkelling, adventure boating and wind surfing.

#### INDUSTRIAL ACCIDENT PREVENTION

The post-war growth of industrial activity in this State was accompanied by an increasing toll of injuries and fatalities sustained during the course of employment. Legislation requires certain minimum standards of safety in working conditions to be provided in various industries, and inspections are made to ensure compliance with legislative requirements. However, legislation and inspection are not the only means of minimising industrial accidents and in the late 1950s the South Australian Government implemented a program of education for management, supervisors and employees in accident prevention measures, with the object of making all sections of industry more 'safety conscious'.

Safety officers employed in the Department of Labour and Industry conduct safety training courses, present lectures, screen films and distribute industrial safety pamphlets produced within the Department.

In addition the Safety Engineering Society of Australasia, the Australian Institute of Management (Adelaide Division), the South Australian Institute of Technology and the Department of Employment and Industrial Relations make valuable contributions within their particular spheres of activities to the promotion of industrial safety.

#### NATIONAL SAFETY COUNCIL OF AUSTRALIA SA DIVISION

The National Safety Council of Australia SA Division was formed in 1963 as the Industrial Accident Prevention Society of SA Inc., a voluntary non-profit educational body. It is an autonomous branch of the largest organisation in Australia devoting its entire resources to the reduction of accidents in most areas of the community. In South Australia the Council's efforts are devoted to occupational, child and home, and water safety problems; traffic safety being the function of the Road Safety Council of South Australia. The SA Division is also responsible for servicing the requirements of members in the Northern Territory and regular visits are made to that area for safety training and promotional purposes.

The aims of the Council are carried out by the provision of safety consultant services, lectures, training courses and the distribution of safety publications and materials. Finance is derived from membership fees, services, an annual grant from the State Government and assistance from the Commonwealth Government. The Council's activities are controlled by a body representative of all spheres of community interest.

#### ROAD SAFETY COUNCIL OF SOUTH AUSTRALIA

The Road Safety Council of South Australia was formed in December 1965. The Council appointed by State Cabinet consists of an independent chairman and ten members representing the National Council of Women, the Road Traffic Board, the Police Department, the Royal Automobile Association of South Australia, the Local Government Association (two representatives), the Education Department, the Rail Division of the State Transport Authority, the Trades and Labor Council of South Australia, the Australian Medical Association, and the State Government Insurance Commission.

The objectives of the Council are to prevent road accidents involving death, injury or property damage through united action by all sections of the community, and to advise

and assist government, semi-government and local authorities as well as private organisations in the adoption of precautionary measures in an attempt to prevent such accidents. In its efforts to achieve its objectives the Council concentrates on the education of road users in correct practices.

The Council is a section of the Department of Transport. Its administrative headquarters are at the Road Safety Instruction Centre at Oaklands Park. The facilities of the Centre include lecture rooms and instructional areas for children and licensed drivers of all classifications and all age groups. Appropriate courses in road safety education and driver re-education are conducted.

The Council's operations are financed from the \$1 derived from each driver's licence fee under the Motor Vehicles Act, 1959-1976.

## 6.2 EDUCATION

Educational services are available to all South Australians in a wide variety of forms, some being provided by Government and others by non-government agencies. Constitutionally education is a State responsibility, but the Commonwealth makes grants for specific purposes. Education in this State can be seen as comprising three levels, namely, pre-school, school and post-school.

Pre-school education is co-ordinated by the Childhood Services Council and consists of a range of services available to young children (under five years of age) and their parents.

In South Australia attendance at school is compulsory for children from six to fifteen years of age. Children who are five years of age by the last day of February may be admitted to government schools on the first school day in February; children who are five years of age on or before 2 July may be admitted on the first Monday after the last Saturday in June of that year. The two-intake system is being progressively replaced by a system which allows continuous admission of five-year-olds as soon as they reach their fifth birthday. Most non-government schools have the two-intake system and those with a pre-school integrated with the school, accept children under five years of age.

Education at the primary and secondary level is available at government schools controlled by the Education Department and at non-government schools, most of which are denominational. Some non-government schools provide boarding facilities. In both government and non-government schools there has been a trend towards co-education in recent years. The term 'year' is used to denote class level in both primary and secondary schools. Primary classes are designated Year 1 through to Year 7, and secondary classes Year 8 to Year 12.

South Australian schools celebrated the centenary of State education in October 1975. The present system of government schools and of compulsory education dates from the Education Act, 1875.

At the tertiary level the University of Adelaide, the Flinders University of South Australia and the colleges of advanced education are independently controlled but are financially dependent on government grants.

Facilities for adult education are provided by the Department of Further Education, the Workers Educational Association, Department of Continuing Education of the University of Adelaide, and Flinders University.

A historical summary of education in South Australia was included on pages 153-4 of the *South Australian Year Book* 1969.

### **South Australian Council for Educational Planning and Research**

The South Australian Council for Educational Planning and Research was created by Act of Parliament to advise the Minister of Education on matters relating to education issues, and to undertake long-term planning. The Council, consisting of twenty-four members, with an independent Chairperson, includes representatives of major education authorities and agencies in South Australia. It provides a forum for the interaction of these bodies, such as universities, colleges and schools, thereby assisting the co-ordination of the provision of education services. Through the use of various committees, the Council can focus clearly on problems in education, and can stimulate co-operative effort between the bodies concerned. It can also facilitate liaison with authorities such as the Departments of Housing, Urban and Regional Affairs, and Economic Development, to ensure that education provision stays in step with other Government activity.

### **PRE-SCHOOL EDUCATION**

The kindergarten movement in South Australia was founded in 1905 and up to the end of the 1939-45 War, kindergartens were primarily designed for the care and education of under-privileged children. Since 1946 they have become generally accepted as a phase of education, with a consequent rapid increase in facilities. Although some independent kindergartens are conducted by private individuals, or by non-government schools, the majority of pre-school education is under the supervision of the Kindergarten Union of South Australia. This organisation supervises 278 subsidised kindergartens situated throughout the State together with three mobile units. In 1977 the subsidised kindergartens had an enrolment of 17 700 children and employed 880 persons, 600 of whom were teaching staff.

While the supervision covers various aspects of organisation it is largely concerned with the educational program. As well as encouraging the creative, physical and mental development of four to five-year-old children the kindergarten prepares them for the experiences of formal schooling. Sessions are generally of two and a half to three hours duration each day with enrolments limited to thirty children a session; two sessions are held daily at most kindergartens. The work of kindergartens is now being expanded to a wider pattern of child care to encompass extended hours care, playgroups and resource facilities for the community.

The Kindergarten Union is a statutory body and receives its revenue from the Commonwealth and South Australian Governments through the South Australian Childhood Services Council. This revenue covers teachers' salaries, capital building programs and most of the kindergartens' operating costs. Local committees are expected to raise a proportion of the day-to-day operating costs and, to a degree, provide some of the 'extras' needed. Such extra revenue generally comes from fund-raising activities.

The annual recurrent budget of the Kindergarten Union for the financial year to 30 June 1977 was \$7 700 000. Approximately \$2 500 000 was allocated for capital building work, providing for the construction of eight new centres and the rebuilding of a number of existing kindergartens. During the financial year 1977-78 approximately \$1 000 000 was available for capital expansion.

In 1974 the Education Department established pre-school centres, now known as child/parent centres. These centres are staffed by Education Department teachers and are usually located in the grounds of existing primary schools.

By mid-1977 there were 83 child/parent centres with 4 902 children regularly attending. Of the 83 child/parent centres, twelve cater for Aboriginal children in rural areas, four cater for special education children and nine are integrated services centres located at Brompton, Nangwarry, Campbelltown, Mansfield Park/Ferryden Park, Port Augusta,

Elizabeth West, Alberton, Whyalla and Christies East. These integrated centres are co-operative ventures with the Department for Community Welfare and South Australian Health Commission, with local community services involved. Port Augusta Primary School is the base for the Remote and Isolated Children's Exercise (RICE) to serve children and their families in the outback.

Child/parent resource centres are located at Elizabeth West, Alberton, Whyalla and Christies East.

The Childhood Services Council co-ordinates the development of early childhood services in South Australia. These services include child care; child health centres; the Child/Parent Resource Centre; family day care; kindergartens, pre-schools and child/parent centres; parent education; playgroups; and toy libraries.

In August 1975 the Australian Bureau of Statistics conducted a census of all known kindergarten, pre-school and child-care establishments. This was done in consultation with the relevant Government departments and authorities to ensure appropriate coverage and completeness of the collection. Further censuses were conducted in August 1976 and August 1977.

#### Day Care Centres and Pre-School Centres, South Australia, 1976<sup>(a)</sup>

Particulars	Type of Centre					Total
	Kindergarten Union	Licensed by Department for Community Welfare	Independent	Government Schools	Non-government Schools	
Number of centres . . .	257	94	56	20	19	446
Capacity (per session)	8 042	3 424	1 531	515	611	14 123
Attendance:						
Boys . . . . .	8 857	2 161	1 752	217	342	13 329
Girls . . . . .	8 249	2 014	1 592	254	350	12 459
Total . . . . .	17 106	4 175	3 344	471	692	25 788
Paid staff (b):						
Qualified . . . . .	527	256	101	28	34	946
Unqualified . . . . .	422	235	77	14	34	782
Total . . . . .	949	491	178	42	68	1 728

(a) Week commencing 2 August 1976.

(b) Includes part-time.

#### GENERAL SCHOOL EDUCATION

The State Government, through the Education Department, provides free facilities for primary and secondary education; however, parents may choose between government and non-government schools. The Education Department functions under the Minister of Education. The permanent head of the Department is the Director-General of Education, assisted by two Deputy Directors-General of Education and Directors of Personnel, Curriculum, Facilities, Research and Planning, and Administration and Finance. A Director-General of Further Education heads the Department of Further Education which is responsible for a wide range of post-secondary educational activities conducted by community colleges and colleges of further education in all areas of the State.

The work of the schools is materially assisted by the school councils, and also by the mothers clubs, parents and friends associations and welfare clubs. For many years these bodies have been instrumental in raising large sums for the purchase of additional amenities for the schools.

In country areas many children are conveyed to government schools by free bus services provided by the Education Department. At the end of 1977 there were 691 bus services carrying an average of 25 000 students daily to 309 schools.

Although non-government primary schools largely follow the government schools in their curricula, the Education Department exercises no formal authority over these schools beyond requiring them to submit certain statistical returns relating to compulsory attendance. The similarity between courses in the government and non-government secondary schools is attributable to the influence of the Public Examinations Board of South Australia syllabus and the close liaison of the administration and teachers of both types of school.

The Catholic school system is organised on a State-wide basis under the direction of the South Australian Commission for Catholic Schools. This Commission is comprised of the Archbishop of Adelaide, the Bishop of Port Pirie, priests, primary and secondary school principals, superiors, parents, teachers (lay and religious), members of school boards and regional members together with the Director of Catholic Education and the Co-ordinators of Primary and Secondary Education.

The State Government now pays a grant of \$10 a year for each primary and \$20 for each secondary student liable to pay fees at an approved non-government school. In 1977 additional payments on a needs basis varying from \$118.50 to \$258 a student were made to some schools.

### Schools

Details of schools operating in South Australia in 1977 are given in the next table. The average size of government schools has increased rapidly since 1940 partly as a result of the consolidation of country schools. There were 626 government schools in 1977 compared with 1 043 in 1940 and 1 108 in the peak year of 1935. In 1940 there was an average of 73 students to each government school, with this figure increasing to 125 by 1950, 255 by 1960 and 351 by 1970. After peaking at about 379 between 1972 and 1975, the figure declined to 373 in 1977. There has been a similar movement in the average size of non-government schools.

**Schools by Size, South Australia**  
At 1 August 1977

Students on Roll	Government Schools					Non-government Schools
	Primary	Primary-Secondary	Secondary	Special (a)	Total	
Under 21 .....	24	—	—	1	25	1
21 to 35 .....	35	—	—	9	44	9
36 to 100 .....	100	6	—	18	124	26
101 to 200 .....	40	9	5	5	59	36
201 to 300 .....	33	13	7	1	54	23
301 to 400 .....	41	10	9	—	60	13
401 to 600 .....	80	9	18	—	107	17
601 to 800 .....	54	4	20	—	78	7
801 to 1 000 .....	27	—	14	—	41	7
1 001 to 1 200 .....	4	—	24	—	28	6
1 201 to 2 000 .....	—	—	6	—	6	—
<b>Total .....</b>	<b>438</b>	<b>51</b>	<b>103</b>	<b>34</b>	<b>626</b>	<b>145</b>

(a) Schools for physically and mentally handicapped children, schools at institutions and schools for Aborigines.

**Students**

Enrolments in recent years, classified by government and non-government schools and by age of the students are given in the following tables.

**Primary and Secondary Students, South Australia  
At or about 1 August**

Age	Government Schools			Non-government Schools		
	1975	1976	1977	1975	1976	1977
Under 6 . . . .	19 185	19 975	19 007	2 973	3 182	3 076
6 . . . . .	20 134	20 373	21 137	2 709	2 647	2 850
7 . . . . .	19 578	20 005	20 422	2 652	2 829	2 767
8 . . . . .	18 875	19 743	20 395	2 636	2 747	2 855
9 . . . . .	19 696	18 945	19 678	2 833	2 657	2 895
10 . . . . .	19 940	19 432	19 133	3 006	2 988	2 992
11 . . . . .	20 359	19 735	19 516	3 243	3 185	3 108
12 . . . . .	20 669	20 114	19 597	3 550	3 517	3 426
13 . . . . .	20 662	20 389	20 272	3 575	3 660	3 591
14 . . . . .	20 846	20 257	20 217	3 623	3 545	3 676
15 . . . . .	17 223	17 616	17 187	3 426	3 615	3 420
16 . . . . .	11 449	11 326	11 271	2 916	2 964	3 014
17 . . . . .	4 676	4 516	4 379	1 411	1 463	1 508
18 . . . . .	1 086	944	786	278	257	236
19 . . . . .	226	173	153	44	33	21
20 and over . .	108	71	60	10	10	11
<b>Total</b>	<b>234 712</b>	<b>233 614</b>	<b>233 210</b>	<b>38 885</b>	<b>39 299</b>	<b>39 446</b>

**Primary and Secondary Students, South Australia  
At 1 August 1977**

Age	Government Schools			Non-government Schools		
	Primary	Secondary	Total	Primary	Secondary	Total
Under 6 . . . .	19 007	—	19 007	3 076	—	3 076
6 . . . . .	21 137	—	21 137	2 850	—	2 850
7 . . . . .	20 422	—	20 422	2 767	—	2 767
8 . . . . .	20 395	—	20 395	2 855	—	2 855
9 . . . . .	19 678	—	19 678	2 895	—	2 895
10 . . . . .	19 133	—	19 133	2 992	—	2 992
11 . . . . .	19 405	111	19 516	3 082	26	3 108
12 . . . . .	11 059	8 538	19 597	1 670	1 756	3 426
13 . . . . .	1 106	19 166	20 272	146	3 445	3 591
14 . . . . .	215	20 002	20 217	15	3 661	3 676
15 . . . . .	130	17 057	17 187	11	3 409	3 420
16 . . . . .	134	11 137	11 271	2	3 012	3 014
17 . . . . .	111	4 268	4 379	—	1 508	1 508
18 . . . . .	76	710	786	—	236	236
19 . . . . .	66	87	153	—	21	21
20 and over . .	5	55	60	—	11	11
<b>Total</b>	<b>152 079</b>	<b>81 131</b>	<b>233 210</b>	<b>22 361</b>	<b>17 085</b>	<b>39 446</b>



**Teachers**

The numbers of teachers employed in primary and secondary schools in recent years are shown in the following table.

**Teachers, South Australia**

At or about 1 August	Government Schools				Non-government Schools			
	Full-time		Part-time (a)		Full-time		Part-time (a)	
	Males	Females	Males	Females	Males	Females	Males	Females
1975.....	5 274	7 108	59	516	635	983	45	237
1976.....	5 541	7 380	39	466	678	1 043	50	218
1977.....	5 889	7 752	59	425	711	1 086	52	221
Type of Teacher 1977								
Primary.....	2 088	5 083	2	151	179	692	13	77
Secondary.....	3 705	2 496	57	263	530	379	39	141
Special (b).....	96	173	—	11	2	15	—	3

(a) Equivalent full-time units of part-time teaching. Total part-time teachers at 1 August 1977, government schools, 106 males and 726 females; non-government schools, 117 males and 455 females.

(b) Includes schools for physically and mentally handicapped children, schools at institutions and schools for Aborigines.

**PRIMARY EDUCATION**

Children normally begin their schooling at the age of five years when they enrol for primary education at either a government or non-government school. Primary education involves a seven-year course.

**GOVERNMENT SCHOOLS**

Metropolitan children attend primary schools while country children normally attend a primary, rural, area or special rural school, although those in remote areas may receive lessons by correspondence.

**Primary**

In the first two years of school the emphasis is on the child's active involvement in learning. The curriculum is designed to extend children's experience of their environment, through social studies, science and mathematics. It provides for the development of language skills, especially fluency in speech and reading, and creative activities in movement, music, art, drama and writing.

The primary school curricula provide a general framework for the study of English, mathematics, social studies, science, music, art and craft and physical education. An increasing provision is being made for the study of elective subjects, such as foreign languages, ballet and instrumental music.

Ancillary services and expert advice are provided for primary schools by the Supervisors of School Libraries, Physical Education, Music and Educational Technology and their staffs. There are also consultants in all the basic subjects who visit the schools and conduct in-service courses.

**Area and Special Rural**

These schools, situated in country centres, cater for both primary and secondary students. The primary course is similar to that of the primary schools but the secondary courses offered are restricted by the availability of staff.

### Correspondence

The Correspondence School was started in 1920 to cater for children unable to attend ordinary schools. Most of these children live in remote parts of South Australia although there are others who cannot attend school because of invalidity. Connected with the Correspondence School is the School of the Air at Port Augusta which provides two-way radio communication between teacher and student to supplement the correspondence lessons.

The table which follows shows the numbers of schools and students in the schools in which primary education is offered in recent years.

#### Primary Education: Government Schools, South Australia

At or about 1 August	Number of Schools		Primary Students Enrolled				Total
	Primary (a)	Area (b)	Primary Schools (a)	Area Schools (b)	Corres- pondence School (c)	Other (d)	
1973.....	429	50	140 567	9 108	675	2 348	152 698
1974.....	426	49	141 009	9 010	480	2 402	152 901
1975.....	430	49	139 912	9 131	493	2 439	151 975
1976.....	436	50	139 363	9 260	483	2 393	151 499
1977.....	438	50	139 671	9 460	538	2 410	152 079

(a) Includes rural schools.

(b) Includes also special rural schools.

(c) From 1974 Northern Territory students are excluded.

(d) Includes schools for Aborigines, schools for handicapped children and schools at institutions.

#### NON-GOVERNMENT SCHOOLS

At 1 August 1977, 22 361 children were receiving primary education at non-government schools. The majority of these children were attending Catholic schools (see table on page 185).

#### Catholic

Many children receiving primary education in the Catholic school system attend parish schools while the remainder attend colleges conducted by religious orders. Both types of school are supported by fees paid by parents and by State and Commonwealth Government grants. Parish schools are the property of the parishes which are responsible for equipping and maintaining them. The educational program of the school is under the direction of the principal who may be either a lay person or a member of a religious order. Elected school boards assist in the financial administration of these schools and determine the fees that will be charged as well as concessions for parents in necessitous circumstances.

#### Other

The Church of England, the Lutheran Church and the Seventh Day Adventist Church conduct primary schools. Primary education is provided together with secondary education at primary/secondary schools conducted by the Church of England, the Uniting Church, and at three non-denominational schools.

## EDUCATION OF HANDICAPPED CHILDREN

The Special Education Section of the Education Department provides education for handicapped children in a variety of settings. The general policy is that children should be educated in the most 'ordinary' situation possible and that a range of options should be available. Options provided include special schools, full-time special classes, part-time special classes, support teachers within ordinary schools helping children and teachers in regular classes, and support teachers working outside their home base schools with similar intentions. In addition, a variety of arrangements are entered into in which groups of handicapped children and their teachers are combined with regular groups and their teachers in a single complex. Specific provisions are made for hearing impaired children (all within centres in regular schools), visually impaired children (one small special school plus support services), moderately mentally retarded children (mostly in special schools but occasionally in special or regular classrooms), physically handicapped children (in both special and regular schools) and others.

Special schools are conducted for day students and within institutions for children in residence.

## SECONDARY EDUCATION

Children who have completed their primary schooling are required by law to attend a secondary school, either government or non-government, until their fifteenth birthday.

## GOVERNMENT SCHOOLS

The South Australian Education Department's policy is to provide comprehensive co-educational high schools which, consistent with their size and enrolment, offer the widest range of courses possible in an endeavour to meet the interests of the students.

Metropolitan students are required to attend schools within the zone in which they reside. The few schools that are not co-educational as well as Urrbrae Agricultural High School are unzoned at present. In the country, secondary education is provided by high schools in the larger towns, and by either high, area or special rural schools in many of the smaller centres. Certain students may use the facilities of the Correspondence School.

All new schools built in recent years, and some existing schools, have been provided with gymnasiums and music and drama areas. The upgrading of schools and the provision of open-plan units in existing schools is continuing.

## Secondary Education: Government Schools, South Australia

At or about 1 August	Number of Schools		Secondary Students Enrolled				Total
	High	Area (a)	High Schools	Area Schools (a)	Corres- pondence School (b)	Other (c)	
1973 .....	102	50	73 619	5 116	224	129	79 088
1974 .....	103	49	74 291	5 013	157	117	79 578
1975 .....	104	49	77 310	5 085	203	139	82 737
1976 .....	104	50	76 436	5 308	204	167	82 115
1977 .....	103	50	75 496	5 176	240	219	81 131

(a) Includes also special rural schools.

(b) Full correspondence students only. Excludes Northern Territory students from 1974 (sixty-one at 1 August, 1977).

(c) Students receiving secondary education at primary schools, Aboriginal schools, institutions, senior special schools and speech and hearing centres.

### **Changes and Developments**

Secondary schools have common aims and a large area of common studies. At the same time schools have become more flexible offering a variety of syllabuses that allow for differences in the aspirations and abilities of individual students.

A system of tracks from 0 to 4, employed previously by many schools to indicate the purpose of the various syllabuses, is gradually being displaced. In most subjects, attempts have been made to formulate courses of study which have a core for all students and various extension or enrichment courses to suit the students' varying needs and abilities. Integrated courses of studies are now being developed in some schools. In the humanities, for example, the branches of history, geography and social studies have been combined. These courses are integrated in a meaningful manner to cater for the needs of individual schools. Girls and boys have equal access to all courses of study offered in high schools. Health education and religious education courses have been devised and are being tested in a number of schools. In 1974 a co-ordinating curriculum committee was set up to co-ordinate the primary and secondary curriculum development.

Flexible and varying methods of teaching and learning are freely employed. Student representative councils are to be found in many schools and all have school councils which assist in their administration.

### **Secondary Schools**

The breadth of courses sought during the first three years of secondary schooling (the Junior Secondary Curriculum) is believed to be best achieved by offering students as wide a selection of subjects as is compatible with their abilities and interests. For convenience and guidance the subjects are divided into two basic groups. The first, a core group of subjects, consists of English, social studies, mathematics, science, art or craft, and physical education, to which is added a selection of two, three or four subjects from a second group called electives. Subjects in this group include such disciplines as foreign languages, further mathematics, science and craft, art, agriculture (in country area schools and high schools), history and/or geography, and music. The number of electives taken will depend upon the facilities available, the ability of the student and his vocational interests.

Opportunities are also given for general experience in some of the elective group of subjects. Instruction referred to as general experience is below the norm in time for that regarded as a full subject, but is sufficient to stimulate and awaken latent interest. General experience subjects may include foreign languages at a conversational level, art, further craft, physical education, music, agriculture, consumer education, shorthand, typewriting, road safety and drama.

The junior secondary levels are regarded as exploratory and aim to provide the student with as wide a range of interests and educational experience as possible before he commits himself to a particular course of study at the senior level.

### **Area Schools**

Area schools are provided in certain country districts not served by high schools; they cater for both primary and secondary students and are co-educational. The range of subjects offered is more restricted than that available to larger secondary schools but all students have the opportunity to study core secondary syllabuses to Year 11 in their own district. Year 12 classes have been established in fifteen schools. English, social studies, mathematics, science, art or craft, and physical education, form a core to which may be

added further mathematics, science or craft, history and/or geography. A foreign language is available in a few schools. The curriculum in many area schools is further broadened by general experience subjects.

### **Special Rural Schools**

These schools were first established in remote country areas in 1966 with the intention of supplying a limited secondary education in areas where it had been shown that there was an obvious need for secondary education but where the establishment of an area school was not warranted. Courses in these schools are restricted to the core subjects, English, social studies, mathematics, science—sometimes craft where facilities are available, and geography and/or history. Instruction does not proceed beyond Year 10 level.

### **Correspondence School**

Children who are unable to attend a secondary school may receive secondary education through the Correspondence School. Lessons are forwarded to cover eighteen academic subjects (all to Year 11 standard), and also certain drawing subjects. Assistance may take the form of full correspondence or supplementary courses. Supplementary courses are conducted through a primary school head teacher who may, in the case of remoteness from secondary school facilities, conduct grades beyond Year 7. Courses are also supplied to students in smaller secondary schools who wish to do a specific subject which is not available because of staffing problems.

Students who wish to do matriculation studies (Year 12) are enrolled through the South Australian College of External Studies.

### **The Curriculum**

The aim of all secondary schools is to provide courses of study that best suit the needs of individual students. An extension of individualised learning has resulted in schools offering as wide a range of subjects and syllabuses as possible.

Secondary school subject curriculum committees, which are comprised of representatives of a wide spectrum of interests associated with education, meet regularly to discuss courses of study and to establish new syllabuses for secondary students. Although syllabuses are distributed to all teachers, they are in no way prescriptive. They are adapted to cater for the needs and abilities of students.

### **School Libraries in South Australia**

During the past decade there has been a rapid improvement in the quality of library service in South Australian schools. This has been caused by a combination of factors including the provision of trained teacher-librarians in most schools and multiple professional and support staff in the larger schools; the upgrading of education and inservice training courses for teacher-librarians; and the development of advisory services offered by the School Libraries Branch. School libraries have changed in concept from book-oriented libraries to multi-media resource centres containing a large range of print and non-print materials which provide students and staff flexibility in choosing the medium best suited to their needs at a particular time.

Libraries in government schools have the central support services of the School Libraries Branch of the Education Department to assist them. Services offered include central cataloguing, book reviewing and selection, a quarterly professional publication,

Review, and a central library and bulk loan scheme as well as an advisory service to principals, teachers and librarians.

In 1977 stocks of library materials held in government schools totalled 4.7 million and expenditure on materials rose to \$1.5 million. There were 521 teacher-librarians employed.

### NON-GOVERNMENT SCHOOLS

Secondary education is also provided by non-government schools; these schools, for the most part, are identified with various religious denominations. Non-government secondary schools usually charge fees, however, a limited number of internal scholarships are available. In addition to normal day attendance many non-government schools offer boarding facilities for country students. Non-government schools provide academic courses preparing students for the Public Examinations Board examination at the Year 12 level. Church schools give religious as well as secular education.

#### Catholic

The Catholic school system provides secondary education at boarding and day colleges in metropolitan and country areas. The schools seek to serve the needs of students by providing (where appropriate) courses in technical education, business and commercial education and general education together with academic courses for those seeking admission to tertiary education after matriculation (Year 12). The majority of Catholic secondary schools are the property of the religious communities who conduct them and are supported by fees charged and government grants.

#### Other

The Lutheran Church and the Seventh Day Adventist Church conduct secondary schools. Secondary education is provided also at primary/secondary schools (see page 180).

Training in typing and shorthand is provided at privately owned business colleges which specialise in this field. A number of these colleges also prepare students in certain Public Examinations Board subjects.

#### Summary

The following tables give details of all non-government schools and cover both primary and secondary education. Additional information is shown in the tables on pages 178-9.

#### Non-government Schools, South Australia

Year	Number of Schools	Number of Teachers (a)	Students on Roll at or about 1 August				Total
			Primary (b)		Secondary		
			Males	Females	Males	Females	
1973.....	163	1 777	10 736	11 193	7 846	7 960	37 735
1974.....	157	1 819	10 896	11 227	8 123	8 371	38 617
1975.....	151	1 900	10 996	11 071	8 118	8 700	38 885
1976.....	147	1 989	11 055	11 122	8 207	8 915	39 299
1977.....	145	2 070	11 150	11 211	8 043	9 042	39 446

(a) Full-time teachers plus the full-time equivalent of part-time teachers.

(b) Includes students at special schools.

In the next table non-government school students are classified according to the denominational affiliation of the school they attended. The predominant contribution of Catholic schools is clearly evident from the table. In 1977 Catholic schools accounted for 79 per cent of primary students and 58 per cent of secondary students attending non-government schools.

**Students at Non-government Schools, South Australia  
At or about 1 August**

Denomination of School	1973	1974	1975	1976	1977
<b>Primary:</b>					
Catholic (a) .....	17 571	17 686	17 662	17 666	17 594
Church of England .....	1 360	1 367	1 347	1 375	1 483
Lutheran .....	1 209	1 299	1 359	1 411	1 504
Seventh Day Adventist .....	146	172	183	187	222
Uniting Church (b) .....	1 134	1 027	987	965	1 025
Undenominational (a) .....	509	572	529	573	533
<b>Total primary</b> .....	<b>21 929</b>	<b>22 123</b>	<b>22 067</b>	<b>22 177</b>	<b>22 361</b>
<b>Secondary:</b>					
Catholic .....	8 720	9 117	9 584	9 845	9 941
Church of England .....	2 281	2 271	2 216	2 193	2 121
Lutheran .....	880	971	980	994	951
Seventh Day Adventist .....	79	116	138	140	152
Uniting Church (b) .....	3 053	2 825	2 715	2 592	2 548
Undenominational .....	793	1 194	1 185	1 358	1 372
<b>Total secondary</b> .....	<b>15 806</b>	<b>16 494</b>	<b>16 818</b>	<b>17 122</b>	<b>17 085</b>

(a) Includes students at special schools.

(b) From 22 June 1977 the Congregational, Presbyterian and Methodist Churches combined to form the Uniting Church in Australia.

## EXAMINATIONS AND EDUCATION ASSISTANCE

### Examinations

In addition to internal examinations conducted by the schools the Public Examinations Board (PEB) conducts a further examination at the completion of the fifth year of secondary education. Before 1966 this examination had been known as the Leaving Honours examination and while considered a desirable fore-runner to university study had not been compulsory for entrance to the University of Adelaide (matriculation being based on the Leaving examination). Commencing with 1966 this examination became the Matriculation examination.

Before 1966 the PEB had given a certificate for a pass in the required number of subjects at either the Intermediate or Leaving examinations and for a pass in one or more subjects in the Leaving Honours examination. From 1966 the Board has issued to each Intermediate and Matriculation examinee a certificate showing the grade achieved in each of the subjects in which examined. The last PEB Intermediate examination was held in 1968 and the last Leaving examination in 1974. The total number of candidates who presented for examination by the Board in one or more subjects at the 1977 Matriculation Examination was 9 650.

### PRIMARY AND SECONDARY EDUCATION ASSISTANCE

The Commonwealth Government, the State Government and various private benefactors provide assistance to various categories of primary and secondary students.

#### **South Australian Government**

On the completion of primary schooling, secondary students, whether at government or non-government schools, are entitled to a book and materials allowance of \$38 a year. Students who have to travel considerable distances to the nearest school, or school bus, may also receive travelling expenses.

A Book Loan Scheme designed to reduce the financial burden on parents has now been established in all secondary schools. Under this scheme the Book and Material Allowance is retained by the school and in return students are supplied with textbooks and class sets on loan. The allowance also covers the cost of certain materials. Parents may be asked to pay something towards the cost of amenities and additional materials, and this is covered by a fee of not more than \$15.

If forced to live away from home, assistance under the Isolated Children's Scheme is provided by the Commonwealth Government. This scheme has replaced the South Australian Government boarding allowances and rural scholarships except in a few special cases not covered by the Isolated Children's Allowance.

#### **Commonwealth Government**

The Scheme of Assistance for Isolated Children assists the parents of students who do not have reasonable daily access to an appropriate government school. The main aim of this scheme is to assist student children whose homes are geographically isolated. However, assistance is also available in certain circumstances to handicapped children who must attend special schools or study by correspondence and to students undertaking a special type of course or specialised remedial teaching. Students who must live away from home to undergo diagnostic testing of an educational nature may also be assisted, as may students from itinerant families.

Assistance under this scheme comprises a basic boarding allowance of \$500 a year free of means test, an additional allowance of up to \$500 a year, which is subject to a means test and to boarding costs actually incurred, and a special supplementary allowance of up to \$550 a year payable where there is particular financial hardship. For beneficiaries residing in tax zones A or B, a special non-means tested grant of \$100 will be made in 1978 for each child qualifying for boarding allowance. Eligible students studying by correspondence receive a basic allowance of \$200 and may receive an additional payment of up to \$300 a year in respect of approved expenditure incurred.

The Secondary Allowances Scheme aims to provide assistance to families with a limited income so that they may maintain their children at school for the final two years of secondary education. Under this scheme an allowance of up to \$550 a year may be paid subject to a means test.

The Commonwealth Government also provides financial assistance for the education of students of Aboriginal or Torres Straight Island descent who attend approved schools. This assistance is provided under the Aboriginal Secondary Grants Scheme. The grants are open to full-time students under the age of twenty-one who attend an approved secondary school. Grants also may be made available to full-time students who attend an approved primary school provided the student is fourteen years of age but under twenty-one years. Benefits under this scheme comprise textbook and uniform allowances, living



allowance, personal allowance and fees. Students who must live away from their normal place of residence in order to attend school are eligible for a boarding allowance in lieu of living allowance, and for up to three return journeys to their home each year.

### TERTIARY EDUCATION ASSISTANCE

In 1974 the Commonwealth Government abolished tuition fees at universities, colleges of advanced education, and technical colleges and introduced the Tertiary Education Assistance Scheme.

The Tertiary Education Assistance Scheme is intended to assist students in approved courses at universities, colleges of advanced education, technical colleges and certain other approved tertiary institutions in Australia. Assistance under the scheme may include payment of living allowance, incidentals allowance, allowance for a dependent spouse and/or child, and fares allowance. All benefits are subject to a means test and a student must be eligible for living allowance in order to receive any of the other benefits. The maximum amount of living allowance payable is \$2 348 a year for independent students. Students eligible to receive living allowance at the away from home rate may receive up to \$2 075 a year. Students living at home may receive up to \$1 250 a year.

Commonwealth Teaching Service Scholarships are available to students who are prepared to undertake full-time courses which provide professional teaching qualifications for pre-school, infant, primary, secondary school or college and specialised teaching. These scholarships are not covered by a bond but are intended for students who will, on completion of their training, become members of the Commonwealth Teaching Service. Commonwealth Teaching Service Scholarships entitle the holder to a living allowance free of a means test, to a book and equipment allowance of \$80 a year and to the payment of compulsory fees which may be levied by the training institution. Students living away from home will receive assistance with travel costs between their home and place of study up to three times per year. The living allowance payable is \$1 250 a year in the case of a student living at home with his parents and \$2 075 a year in the case of a student who is eligible to receive the allowance at living away from home rates.

Aboriginal Study Grants are available for students of Aboriginal and Torres Strait Island descent who wish to study further after leaving school. Benefits include a living allowance and a textbook and equipment allowance.

Awards are also available for postgraduate study either in research or in course work. Assistance is by means of tax free allowances paid to award holders. The allowances payable consist of a living allowance, an incidentals allowance and under certain circumstances special allowances in respect of dependants, cost of travel, cost in setting up residence, and a contribution to costs associated with the production of a thesis. The living allowance payable to an award holder with no dependents is \$4 000 a year.

### OTHER ASSISTANCE

Under the Adult Secondary Education Assistance Scheme the Commonwealth Government provides assistance to adult students undertaking one year full-time matriculation level courses at technical colleges, secondary schools and other approved institutions. This assistance is available subject to a means test and certain conditions of eligibility. Assistance under the scheme may include living allowance, incidentals allowance, allowance for a dependent spouse and/or child, and fares allowance. An applicant must be eligible for living allowance in order to receive any of the other benefits and the provision of living allowance is subject to a means test. The maximum rates of living allowance are the same as the Tertiary Education Assistance Scheme.

**Students Receiving Commonwealth Government Student Assistance  
South Australia, At 30 June**

Scheme	1976	1977
Assistance for Isolated Children .....	694	601
Secondary Allowances .....	1 440	1 371
Aboriginal Secondary Grants .....	780	870
Tertiary Education Assistance .....	8 358	8 523
Commonwealth Teaching Service Scholarships .....	85	57
Pre-School Teacher Education .....	457	(a) 332
Postgraduate Awards .....	271	270
Aboriginal Study Grants .....	102	77
Adult Secondary Education Assistance .....	327	320

(a) No new awards are being offered under this scheme.

### TERTIARY EDUCATION

#### THE UNIVERSITY OF ADELAIDE

The University of Adelaide was established in 1874 by Act of Parliament passed by the South Australian Parliament. The academic work of the University began in March 1876, with four professors, three part-time lecturers, a registrar-librarian, and eight matriculated and fifty-two non-graduating students attending classes in arts and science subjects. Within a decade, law, music and medicine were added; in 1888 studies in engineering were instituted in collaboration with the South Australian School of Mines and Industries; and at the turn of the century the University broke new ground for Australian universities by founding a conservatorium of music and by instituting studies in commercial subjects. Between the two wars the Waite Agricultural Research Institute and faculties of dentistry and economics were established; studies in agricultural science and engineering greatly developed; and diploma courses in pharmacy, public administration and physical education instituted.

The original full-time academic staff of four in 1876 had grown by May 1977 to 74 professors, 95 readers, 243 senior lecturers, 142 lecturers, and 120 tutors and demonstrators. Teaching by part-time staff amounted to 62 000 hours in 1977. Part-time staff were mainly engaged in large first-year science classes involving laboratory work and in the faculties of engineering, law, medicine and dentistry.

The governing body of the University of Adelaide is the Council, comprising the Chancellor and the Vice-Chancellor (*ex officio*), twenty-two members elected by a Convocation of Electors, four members elected by the undergraduates and five members appointed by Parliament. The principal advisory committees of the Council are the Education Committee and the Finance Committee each of which is appointed by the Council. There is also the usual university structure of faculties, boards of studies and special committees to advise on particular aspects of the University's work.

In 1978 the University had 11 faculties: arts (11 departments); economics (2); science (11); agricultural science (7); engineering (4); medicine (8); law; mathematical sciences (5); music; dentistry (4); and architecture and planning. Higher degrees are provided in all faculties and post-graduate diploma courses are provided in applied psychology, business management, computing science, and education.

Intending students are normally required to have passed the Matriculation examination at a prescribed overall standard. Interstate and overseas students, however, may be accepted on alternative qualifications.

The period of study ranges from three years for certain degree and diploma courses to six years for medicine. As from 1974 all tuition fees and associated charges for degree and diploma courses were abolished. However, fees are still payable in respect of courses in the Continuing Education Department and for studies in the Elder Conservatorium of Music which do not form part of a degree course. All students are still required to pay a Union Fee, *i.e.* an entrance fee of \$20 and an annual fee of \$118 for full-time students and \$59 for part-time students undertaking more than twenty-five per cent of a full year's work and \$29.50 for part-time students undertaking up to and including twenty-five per cent of a full year's work.

During the last decade significant changes have occurred in the composition of the student body. The proportion of full-time students has steadily risen, and the proportion taking part-time studies has steadily declined. The most significant change, however, has been in the numbers of students proceeding to honours and higher degrees and post-graduate diplomas; here the rate of growth is considerably more than that of undergraduate enrolments.

From its inception until the end of 1977 the University had conferred 29 578 degrees and 8 696 diplomas by examination. The growth of the University in recent years is indicated by the number of degrees and diplomas awarded in 1977 which totalled 1 925, compared with 1 353 in 1967.

Details of student enrolments are given in the next two tables.

#### The University of Adelaide, Enrolments<sup>(a)</sup>

Course	1973	1974	1975	1976	1977
Higher degree candidates (b) . . . . .	997	1 101	1 170	1 243	1 218
Undergraduate, diploma, certificate and miscellaneous students:					
Agricultural science . . . . .	196	212	217	224	199
Applied Science . . . . .	23	10	3	—	—
Architecture . . . . .	165	172	179	176	188
Arts . . . . .	2 678	2 816	2 904	2 891	2 692
Dentistry . . . . .	281	301	292	313	309
Economics . . . . .	630	655	709	752	770
Engineering . . . . .	623	605	620	617	621
Law . . . . .	558	566	610	609	639
Mathematical sciences . . . . .	234	262	326	414	418
Medicine . . . . .	725	723	745	810	781
Music . . . . .	134	159	170	162	138
Pharmacy (degree) . . . . .	5	2	—	—	—
Science . . . . .	1 296	1 331	1 255	1 109	1 082
Technology . . . . .	55	29	14	2	—
Miscellaneous (SAIT) (c) . . . . .	100	96	115	123	141
Elder Conservatorium (d) . . . . .	205	210	224	210	210
Visiting Students (e) . . . . .	31	51	73	150	149
<b>Total . . . . .</b>	<b>8 936</b>	<b>9 301</b>	<b>9 626</b>	<b>9 805</b>	<b>9 555</b>

(a) Each student is counted once only; in the category appropriate to his principal course.

(b) Includes Master's qualifying candidates.

(c) Students enrolled in subjects as part of a diploma course at the South Australian Institute of Technology.

(d) Students not also enrolled for degree or diploma subjects.

(e) Students enrolled at another university, who may subsequently qualify for a degree of that other university, but who are undertaking part of their degree work at the University of Adelaide.

The University of Adelaide, Enrolments, 1977<sup>(a)</sup>

Course	New Students (b)	All Students				
		Full-time	Part-time	External	Staff	Total
Higher degree candidates	233	601	365	130	115	1 211
Master's qualifying candidates	5	—	7	—	—	7
Undergraduate, diploma and miscellaneous students:						
Agricultural science . .	60	169	30	—	—	199
Architecture . . . . .	42	177	11	—	—	188
Arts . . . . .	874	1 553	1 106	33	—	2 692
Dentistry . . . . .	58	284	25	—	—	309
Economics . . . . .	204	385	385	—	—	770
Engineering . . . . .	184	552	69	—	—	621
Law . . . . .	167	566	73	—	—	639
Mathematical sciences	113	313	105	—	—	418
Medicine . . . . .	160	734	47	—	—	781
Music . . . . .	43	129	9	—	—	138
Science . . . . .	393	862	220	—	—	1 082
Misc. (SAIT) (c) . . . .	76	—	141	—	—	141
Elder Conservatorium (d) . . . . .	70	—	210	—	—	210
Visiting students (e) . .	126	3	146	—	—	149
<b>Total . . . . .</b>	<b>2 808</b>	<b>6 328</b>	<b>2 949</b>	<b>163</b>	<b>115</b>	<b>9 555</b>

(a) Each student is counted once only; in the category appropriate to his principal course.

(b) Figures for undergraduate courses include students who have transferred from another undergraduate course either in this or another university, or who are commencing a second course.

(c) Students enrolled in subjects as part of a diploma course at the South Australian Institute of Technology.

(d) Students not also enrolled for degree or diploma subjects.

(e) Students enrolled at another university, who may subsequently qualify for a degree of that other university, but who are undertaking part of their degree work at the University of Adelaide.

### Waite Agricultural Research Institute

The Waite Institute was established at Urrbrae in 1924, through the generous benefaction of Mr Peter Waite, and this was largely responsible for the strong development of Agricultural Science in the University. Upon his death in 1922, Peter Waite endowed the University with the properties of Urrbrae, Claremont, and Netherby (approximately 120 hectares) together with Urrbrae House and ancillary buildings together with a Trust Fund of \$120 000, and by 1924 the Waite Agricultural Research Institute was established.

Since its establishment, the Waite Institute has conducted research into a wide range of agricultural problems. The research program is organised into seven departments; agricultural biochemistry, agronomy, animal physiology, entomology, plant pathology, plant physiology and soil science; and a Biometry section. Over the years research projects have been carried out on the chemistry of soils, plant viruses, pasture management, ecological studies of insects, and numerous other subjects vital to the agricultural progress of the State and the nation.

The Mortlock Experimental Station of 275 hectares near Mintaro, north of Adelaide, was established in 1965 by the generosity of Mrs J. J. Mortlock.

### The Library

The central library of the University is named the Barr Smith Library in honour of its original benefactor, Robert Barr Smith, and his son, Tom Elder Barr Smith. During his life Robert Barr Smith provided funds for the purchase of books and members of his family gave the University a substantial donation in 1920 in his memory. Tom Elder Barr Smith provided the first part of the present building in 1930 at a cost of nearly \$70 000.

The central library includes the medical library. In addition there are branch libraries for law, music and the Waite Agricultural Research Institute. Borrowing facilities are available to staff, students and graduates.

Holdings at the end of 1977 were as follows: central library 766 000 volumes (including medical library 85 000); law library 55 000, music library 2 500 bound scores (and 14 000 pieces of music in sheets); and the Waite Agricultural Research Institute 34 000, making total holdings of 870 000 volumes. In addition, the Library held the equivalent of 73 000 volumes in microform.

During 1977 the Library made 260 000 loans to students, staff and graduates; 28 000 to other libraries in South Australia; and 5 400 to libraries in other States and countries. It received 3 000 loans from other libraries. Accessions totalled 41 500 volumes and the equivalent of 8 000 volumes in microform, while withdrawals numbered 1 100 volumes. Serials titles received numbered 20 000. Expenditure on staff, books, serials and binding and for other library purposes amounted to \$2 457 000 or 6.7 per cent of total university revenue expenditure.

### Elder Conservatorium of Music

Adelaide was the first University in Australia to establish a Chair of Music (1884) and a Conservatorium of Music (1897). In addition to full degree courses in practical studies, musicology and composition, the University School of Music provides instruction in the various branches of musical performance for part-time students.

Concert experience for students is provided through regular informal concerts internal to the Conservatorium and by occasional public concerts. The University Music Society, each year, arranges a series of night concerts, by members of the staff, who also provide a series of Sunday afternoon public concerts and recitals during the winter months.

In 1977 there were 138 students proceeding to the degree of Bachelor of Music and 210 students taking single subject practical studies.

### Residential Colleges

The residential colleges are independent bodies affiliated with the University. Three of the four colleges for undergraduates were founded by churches but impose no denominational restrictions on admission; the fourth undergraduate college and the college for postgraduate students have no denominational affiliation. All are situated in North Adelaide within easy walking distance of the University.

Their names, church affiliations, years of founding and residential capacities are:

St Mark's	Church of England	1925	130 students, 12 tutors;
St Ann's	Non-denominational	1947	121 students, 8 tutors;
Aquinas	Catholic	1948	102 students, 12 tutors;
Lincoln	Uniting Church	1952	176 students, 15 tutors;
Kathleen Lumley	Non-denominational		
	(postgraduate)	1968	70 students.

St Mark's confines its membership to men; in 1973 St Ann's and Lincoln and in 1974 Aquinas made their facilities available to both men and women. Kathleen Lumley has been co-residential since its foundation.

### Department of Continuing Education

This Department offers a range of courses for members of the general public (see page 208).

### Other Special Features

Unusual features of the University's work include its extensive research into the linguistics, myths, legends and musicology of the Aborigines; teaching and research in Computing Science ranging from first year undergraduate level to the Doctorate of Philosophy; the Mawson Institute for Antarctic Research (which also takes postgraduate students); upper atmosphere research by balloon and rocket; mineral exploration; and arid zone studies.

### Finance

Details of income and expenditure for the period 1973 to 1976 are shown in the following table.

The University of Adelaide, Finance<sup>(a)</sup>

Particulars	1973	1974	1975	1976
			\$'000	
Income for capital purposes:				
Commonwealth Government .....	898	4 726	2 447	1 776
State Government .....	898	—	—	—
Income for other purposes:				
Commonwealth Government .....	6 842	23 783	30 286	35 157
State Government .....	9 661	88	111	214
Student fees .....	2 376	175	126	128
Other .....	1 138	1 356	2 153	1 915
<b>Total income .....</b>	<b>21 813</b>	<b>30 128</b>	<b>35 123</b>	<b>39 190</b>
Expenditure:				
Teaching and research .....	12 315	20 506	25 617	28 396
Administration .....	2 164	1 604	2 168	2 530
Libraries .....	1 179	1 603	2 113	2 417
Buildings, premises, grounds .....	3 899	5 269	3 481	3 273
Other .....	864	1 231	1 768	1 949
<b>Total expenditure .....</b>	<b>20 421</b>	<b>30 213</b>	<b>35 147</b>	<b>38 565</b>

(a) Includes Waite Agricultural Research Institute.

## THE FLINDERS UNIVERSITY OF SOUTH AUSTRALIA

During 1958 when the University of Adelaide began to plan two major new buildings on its existing 13 hectare site it became apparent that further expansion would have to take place elsewhere.

Early in 1961 the South Australian Government indicated that it would make available to the University of Adelaide an area at Bedford Park, of some 150 hectares, situated about eleven kilometres from the centre of Adelaide in the foothills of the Mount Lofty Ranges. Consequently the University of Adelaide made a submission for financial support to the Australian Universities Commission in 1962, which gave approval for the planning of Bedford Park. The institution became known as 'The University of Adelaide at Bedford Park'. Towards the end of 1965 the South Australian Government decided to make the University of Adelaide at Bedford Park a fully autonomous university under the name 'The Flinders University of South Australia', after the great explorer and hydrographer, Matthew Flinders. A more detailed history of the Flinders University was included on pages 163-8 of the *South Australian Year Book* 1967.

The Flinders University of South Australia Act came into force on 1 July 1966. The Act places the whole management of the University in the hands of a council with powers to make statutes and regulations subject to the approval of Convocation which comprises the graduates of the University, graduates of other universities who have been awarded a diploma of the University, and full-time members of the staff.

The Council comprises thirty-one members: the Chancellor; the Vice-Chancellor; the President of the Students Association; five members of the Parliament of South Australia; three members appointed by the Governor; eight members of the academic staff elected by the academic staff; one member of the ancillary staff elected by the ancillary staff; four persons elected by Convocation; one postgraduate student elected by the postgraduate students; three undergraduate students elected by the undergraduate students; and not more than three other members co-opted by the Council.

The first academic year of the University began in 1966, with enrolments of 382 first-year undergraduates and thirty-five graduate students.

Details of enrolments for the years 1974 to 1977 are shown in the following table.

**The Flinders University of South Australia, Enrolments**

Course	1974	1975	1976	1977
Undergraduate bachelor degrees:				
Arts .....	1 447	1 586	1 848	1 795
Science .....	508	498	480	441
Economics .....	273	254	303	331
Education .....	265	249	199	222
Medicine .....	64	129	185	231
Postgraduate bachelor and diploma:				
Diploma Social Administration .....	120	—	—	—
Bachelor Social Administration (a) .....	—	116	115	107
Bachelor Special Education .....	—	26	45	61
Diploma Education .....	141	216	189	180
Diploma Education Administration (b) .....	—	—	5	8
Diploma Social Sciences (c) .....	—	21	39	66
Diploma Dietetics (b) .....	—	—	10	14
Higher degrees (including master qualifying) .....	287	322	366	404
Miscellaneous .....	68	57	114	185
<b>Total .....</b>	<b>3 173</b>	<b>3 474</b>	<b>3 898</b>	<b>4 045</b>

(a) Replaces Diploma in Social Administration from 1975.

(b) Commenced in 1976.

(c) Commenced in 1975.

## The Flinders University of South Australia: Enrolments, 1977

Course	Commencing Students	All Students		
		Full-time	Part-time	Total
Arts .....	639	1 233	562	1 795
Sciences .....	146	386	55	441
Economics .....	156	218	113	331
Education .....	110	177	45	222
Medicine .....	62	225	6	231
Higher degrees .....	114	148	233	381
Master qualifying .....	18	1	22	23
Postgraduate diploma .....	208	186	82	268
Postgraduate bachelor .....	66	121	47	168
Miscellaneous .....	154	14	171	185
<b>Total .....</b>	<b>1 673</b>	<b>2 709</b>	<b>1 336</b>	<b>4 045</b>

**Academic Organisation**

The academic organisation of the University is based on 'Schools' instead of faculties or departments. The School is the basic academic and administrative unit and one of the academic staff of each school is appointed to act as the Chairman of the School for a period of three years.

At present there are eight Schools: the Schools of Humanities; Social Sciences; Mathematical Sciences; Physical Sciences; Biological Sciences; Medicine; Earth Sciences; and Education. The School of Biological Sciences is an integrated one; there are no divisions into the traditional disciplines of botany, zoology, micro-biology, etc., the emphasis being on the manner in which the teaching and research are organised, e.g. cellular biology, molecular biology. The remaining schools have a total of twenty-six disciplines established within them.

**The Flinders University of South Australia**  
**Full-time Staff Establishment, 1 January 1978**

<b>Schools:</b>	
Academic (teaching and research) .....	327
Technical .....	150
Clerical .....	86
<b>Library:</b>	
Professional .....	23
Other .....	43
<b>Registry:</b>	
Senior administrative .....	38
Clerical .....	71
Caretaking, grounds and maintenance .....	57
<b>Student services:</b>	
Professional .....	6
Other .....	4
<b>Total .....</b>	<b>805</b>



### **The Library**

The acquisition of books for the Library commenced in 1963 when the first Library staff were appointed. By the time teaching began in 1966 a collection of some 60 000 volumes had been assembled. At the end of 1977 the collection totalled 380 000 volumes and approximately 25 000 volumes are being added each year; 7 800 periodicals are currently received. Emphasis is placed on the acquisition of material to support the current teaching and research programs of the University. Loans to staff and students during 1977 totalled more than 127 000. The Medical Library, situated in the Flinders Medical Centre, is a branch of the main Library and holds about 15 000 volumes on medicine and allied subjects for University and Medical Centre users.

### **Admission to the University**

Normally students must have qualified for matriculation by passing the Matriculation Examination of the Public Examinations Board in a prescribed manner, and must be selected by the University. Flinders University, together with the other nine tertiary institutions in South Australia, have established the South Australian Tertiary Admissions Centre to which to all students wishing to enrol in any of the institutions must apply for admission. Admission is subject to selection within the quota and is based on academic merit.

### **Degrees Offered**

The University offers the following degrees; Bachelor of Arts, Bachelor of Economics, Bachelor of Education, Bachelor of Medicine and Bachelor of Surgery, Bachelor of Science, Bachelor of Social Administration, Bachelor of Special Education, Master of Arts, Master of Arts (Drama), Master of Economics, Master of Education, Master of Educational Administration, Master of Psychology, Master of Social Administration, Master of Science, Doctor of Philosophy, Doctor of Letters and Doctor of Science. In addition there are postgraduate diplomas in Accounting, Social Sciences, Education, and Nutrition and Dietetics.

### **The Flinders Institute for Atmospheric and Marine Sciences**

The Flinders Institute for Atmospheric and Marine Sciences was established by the Council to further the University's interest in physical and environmental aspects of the air and the sea.

Academic staff and postgraduate students of the University who seek to conduct their research within the framework of the Institute's operations may be considered as members. As an association of scientists with related research interests, the Institute is able to undertake a relatively wide range of investigations, the locations of which range from the Ross Ice Shelf, Antarctica to Lake Eyre.

The Institute ensures that the University's academic and technological capabilities in atmospheric and marine sciences are made known to such government instrumentalities and private sectors of industry as may make use of them to the mutual benefit of both the outside group and the University. As such, in many areas of the environmental and earth services, the Institute is able to play an active role in introducing senior undergraduate students and postgraduate research scholars to some of the scientific needs of the community. Tidal and specialised meteorological data libraries, instrumental facilities and field stations on the Coorong and Cape du Couedic as well as a series of publications are maintained.

In recent years, the work of the Institute has been extensively supported by, or associated with, the Australian Research Grants Committee, the Commonwealth Department of Environment, Housing and Community Development, the Bureau of

Meteorology, the Antarctic Division of the Department of Science, Department of Defence, the South Australian Housing Trust, the Engineering and Water Supply Department, the US National Centre for Atmospheric Research, the US National Science Foundation, Environmental Resources of Australia, the Swissteco (Radiation Instruments), the Horace Lamb Institute of Oceanography and the University's own research budget.

#### **Flinders University Institute for Energy Studies**

An Institute for Energy Studies has been formed at Flinders University with a membership extending through the disciplines of biology, chemistry, physics, geography and meteorology. The aim of the Institute is to explore alternative methods of energy production which are non-polluting. The projects under investigation are concerned with collection, storage and conversion of various forms of solar energy, and aspects of plasma physics. The Institute publishes reports on significant developments by its research associates and consultants.

#### **Institute of Labour Studies**

The Institute of Labour Studies in the School of Social Sciences encourages graduate study, research and publication in the areas of industrial relations, labour economics, industrial psychology and sociology, and labour history. It publishes a quarterly review of labour events, *The Australian Bulletin of Labour*, and a working paper series. Current research projects include studies of worker participation in industry, interaction between work and social activity, unemployment and wage relativity problems.

The Institute is administered by a management committee comprising a director, research associates and persons outside the University. The research associates include members of staff of the School of Social Sciences who are active in labour studies and members of staff of some other tertiary institutions in Australia.

#### **The Centre for Research in the New Literatures in English (CRNLE)**

In April 1977, Flinders University established, within the School of Humanities, the Centre for Research in the New Literatures in English (CRNLE).

The primary aim of the CRNLE is promotion of research in its field by providing a specialist library collection; developing and supervising postgraduate research programs; facilitating more effective teaching of undergraduate courses; and sponsoring research investigations that involve cultural and social questions and are based on cross-cultural, comparative and inter-disciplinary approaches to the study of the literatures and societies concerned.

Membership of CRNLE is open to academic staff, research assistants, graduate students, visiting scholars who are working in conjunction with the Centre, writers and other qualified persons.

#### **The Centre for Applied Social and Survey Research (CASSR)**

The Centre for Applied Social and Survey Research (CASSR) was established by the University Council in 1977 to promote applied social and survey research, disseminate the findings of research through the publication of technical research papers and monographs and the holding of seminars, workshops and summer schools.

In addition to conducting its own research activities and providing a survey research facility for staff and students within the University, CASSR can provide consulting advice to government and private enterprise activities in a wide range of applied social research fields and conduct sample survey research and data analysis in accordance with the University's outside research contract policy.

CASSR's activities are controlled by a management committee which comprises a director, academic staff of the University, and a number of experts in social research from outside organisations.

### Institute for Atomic Studies

The Institute for Atomic Studies was formed in 1976 to act as a focus for the interaction of scientists and graduate students and for the dissemination of reports of research involving the structure and interaction of microscopic quantum systems. Present members, within the disciplines of physics and chemistry, are pursuing fundamental research in the fields of experimental and theoretical atomic collision physics, low and intermediate energy nuclear theory, quantum field theory, statistical physics, electron transport phenomena and quantum and surface chemistry.

### University Hall

University Hall, the University's first hall of residence was completed early in 1971. During the academic year it provides accommodation for nearly 200 students, mostly in single furnished study bedrooms. In addition some double study bedrooms are provided together with flat accommodation. During University vacations the Hall is also available for accommodation and conferences organised by outside bodies.

### Finance

Details of income and expenditure for the period 1973 to 1976 are shown in the following table.

#### The Flinders University of South Australia, Finance

Particulars	1973	1974	1975	1976
Income for capital purposes:			\$'000	
Commonwealth Government .....	1 416	4 482	3 086	1 153
State Government .....	1 416	—	—	—
Income for other purposes:				
Commonwealth Government .....	3 027	10 209	13 882	15 943
State Government .....	3 925	53	104	84
Student fees .....	548	—	—	—
Other .....	111	309	466	832
<b>Total income .....</b>	<b>10 443</b>	<b>15 053</b>	<b>17 538</b>	<b>18 012</b>
Expenditure:				
Teaching and research .....	4 998	6 686	9 409	11 603
Administration .....	956	1 254	1 867	2 065
Libraries .....	740	875	1 213	1 200
Buildings, premises, grounds .....	3 495	5 386	4 496	1 837
Other .....	269	338	1 029	640
<b>Total expenditure .....</b>	<b>10 458</b>	<b>14 539</b>	<b>18 014</b>	<b>17 345</b>

### ADVANCED EDUCATION

The South Australian Board of Advanced Education was established under the South Australian Board of Advanced Education Act, 1972 to function as a co-ordinating body for colleges of advanced education in South Australia.

The Board is responsible for the development of a balanced system of tertiary education (outside the universities) to meet the needs of South Australia for persons qualified in a wide range of vocations. The Board is the State accrediting authority for awards in advanced education; it exercises financial supervision over the capital and recurrent budgets of the colleges; and it is responsible for forward planning in advanced education in South Australia.

The Board is empowered to negotiate and co-operate with the Tertiary Education Commission, the Australian Council On Awards In Advanced Education and other national bodies concerned with tertiary education.

There are eight colleges of advanced education in South Australia offering vocational courses in a wide range of fields. The colleges are the Adelaide College of Advanced Education, Kingston College of Advanced Education, Murray Park College of Advanced Education, Roseworthy Agricultural College, Salisbury College of Advanced Education, South Australian Institute of Technology, Sturt College of Advanced Education and Torrens College of Advanced Education.

Further details of college activities are listed below.

#### ADELAIDE COLLEGE OF ADVANCED EDUCATION

The Adelaide College of Advanced Education is the oldest institution in Australia with an unbroken history devoted to the training of teachers. The College opened its doors on 1 June 1876. The present site in Kintore Avenue, adjacent to the University of Adelaide, was occupied in 1927 and substantial development has taken place since, including construction of the multi-storey Schulz Building. Autonomy as a college of advanced education was granted on 1 January 1973.

The College's present activities are related principally to the training of secondary teachers. Undergraduate courses to fourth year degree level are offered in general secondary arts and science, also in specialist areas of drama, school librarianship, secretarial studies, commerce, physical education, religion studies and community languages.

Postgraduate courses are offered in the professional area of teaching for university graduates, in educational administration and in religious education. An Associate Diploma in Interpreting/Translating began in 1977. Postgraduate courses in curriculum development and community languages (notably Greek and Italian) are planned for introduction in the near future.

Most programs are available to full-time, part-time and external students. The College is the centre in the State for external studies at the advanced education level.

#### KINGSTON COLLEGE OF ADVANCED EDUCATION

The Kindergarten Training College was established in 1907 under the auspices of the Kindergarten Union of South Australia. In 1967 the College changed its title to the Adelaide Kindergarten Teachers College. The reconstitution of the College as an autonomous college of advanced education was finalised when the Kingston College of Advanced Education Act was proclaimed on 6 June 1974.

The buildings on the present site in Childers Street, North Adelaide, were completed in 1972. Because of the demand for trained pre-school teachers, Kingston College of Advanced Education continues to specialise in courses for teachers in early childhood education. In addition to a three-year diploma course for the training of kindergarten and junior primary teachers and conversion courses for experienced primary teachers holding a two-year diploma, graduates of universities or other colleges of advanced education are

able to undertake a one-year professional course to qualify them for kindergarten and junior primary teaching or, a two-year part-time professional course to qualify them in child development and parent counselling.

### MURRAY PARK COLLEGE OF ADVANCED EDUCATION

Murray Park College of Advanced Education was formerly the Wattle Park Teachers College, established in 1957 as the second teachers college in South Australia. The College was granted autonomy and renamed on 1 January 1973.

In 1968 the thirteen hectare Murray Park property in Magill, about eight kilometres east of the city, was purchased as a new site for the College. When the College was granted autonomy it took its name from this historic property.

In the field of teacher education Murray Park College of Advanced Education provides undergraduate courses for primary and early childhood teachers. A postgraduate course is also available for candidates holding an approved tertiary award who wish to qualify for primary teaching. In developing as a multi-discipline College, an undergraduate journalism course and a postgraduate music course are being conducted. Since 1977 the College has also offered an Associate Diploma in Liberal Studies.

### ROSEWORTHY AGRICULTURAL COLLEGE

Roseworthy Agricultural College is a college of advanced education located fifty kilometres north of Adelaide. Established in 1883, it is the oldest of Australia's agricultural colleges.

The College provides advanced education and training, and conducts research in the theory, management and practice of primary production, in methods of agricultural marketing and in the industrial processes involved in the agricultural processing industries. In addition to normal classroom facilities the 1 200 hectare campus includes a dairy, modern winery, vineyards and orchard. About 500 hectares are cropped annually as part of the educational program for students. Residential accommodation is provided for students. A wide range of sporting facilities is available.

Studs are conducted for cattle (Jersey and Poll Shorthorn), sheep (Merino and Poll Dorset), and pigs (Berkshire and Large White). The College is involved in research and experimental work applicable to the area and in the production of pure seed of wheat and oat varieties suitable for South Australia. A major wheat and oat breeding program is also conducted.

The College currently offers the following courses: Bachelor of Applied Science in Oenology, Diploma of Applied Science in Agriculture (General Agriculture, Horticulture, Viticulture and Natural Resources Options), Associate Diploma in Wine Marketing, Associate Diploma in Farm Management (Farm Management and Horse Husbandry Options) and Graduate Diplomas in Agriculture, International Agriculture and Natural Resources.

To be eligible for admission to the undergraduate courses, applicants normally must have completed full secondary schooling. Selection is based on performance in examinations at Year 12 level of secondary education in South Australia, or equivalent, and on the assessed capacity of the applicant to complete the course. Provision is made for the admission of mature age students. Applicants for the graduate diploma courses must have completed an appropriate three-year tertiary course of study.

At 30 April 1977 there were 288 students enrolled at the College.

### SALISBURY COLLEGE OF ADVANCED EDUCATION

The College, located on a 40 hectare site approximately 20 kilometres north of Adelaide, was established in 1968 as the Salisbury Teachers College. The College was granted autonomy and renamed Salisbury College of Advanced Education on 1 January 1973.

The College offers the following courses: a Diploma of Teaching, a three-year course for junior primary, primary and secondary teachers; a Bachelor of Education degree course, a one-year full-time course undertaken on the completion of a Diploma of Teaching; Graduate Diploma in Teaching (one-year); Graduate Diploma in Outdoor Education (one-year); Graduate Diploma in Curriculum (one-year) and the Graduate Diploma in Educational Technology (one-year). The College also offers a one-year Graduate Diploma in Recreation, and two-year Associate Diploma courses in Recreation and in Parks and Wildlife Management.

### SOUTH AUSTRALIAN INSTITUTE OF TECHNOLOGY

The South Australian Institute of Technology, which adopted its present name in 1960, was established in 1889 as the South Australian School of Mines and Industries.

After its inception there was co-operation between the University of Adelaide and the School, and in 1903 joint engineering courses were established. An important development in the history of technical education came in 1957 with an agreement between these institutions whereby certain courses of study at the School would lead to the degree of Bachelor of Technology at the University. Other degree courses have subsequently been introduced.

Current government policy aims at the independent development of colleges of advanced education and the last degree students under the joint arrangement with the University of Adelaide graduated in 1976. The South Australian Institute of Technology Act was revised in 1972, and the Institute was empowered to grant its own degrees. The first of these awards was made at the 1973 graduation ceremony.

The Institute maintains a close relationship with the Education Department and the Department of Further Education, and since 1959 there has been a progressive transfer of control of certain activities. Classes up to and including Matriculation level and all trade classes were transferred to the control of the Education Department, as was the Adelaide Technical High School in September 1963.

The Department of Further Education has taken on a number of technician courses from the Institute and this has enabled the Institute to expand its work in the professional and more advanced semi-professional fields. However, some courses, not approved for awards in advanced education by the Australian Commission on Advanced Education but which lead to a certificate awarded by the South Australian Technician Certificate Board, will continue to be offered.

In addition to its campuses at North Terrace, City, and The Levels (approximately thirteen kilometres north of the city), the Institute operates a campus at Whyalla teaching at both professional and semi-professional level.

The Institute is administered by a Council which has complete authority within the limits of the finance placed at its disposal and for which it is responsible annually to Parliament. The autonomy provided by this feature of control for many years made the Institute unique among Australian technical institutes, but in recent years, the other colleges of advanced education have been granted autonomous government.

A wide range of courses and subjects to various levels is offered. Of the professional courses presented by the Institute, twenty-five have been accredited by the Australian Council On Awards In Advanced Education, for the award of Institute degrees and one



The Library is situated at each of the three campuses of the Institute. The total holding at the end of 1977 was 116 000 volumes with some 2 000 periodical titles being received during the year. Loans to staff and students exceeded 97 200 in 1977.

Emphasis is placed on the acquisition of material in the applied sciences, technology and social sciences to support the Institute's teaching program. Collections of audio-visual materials including films, microforms, maps, prints, records and slides are being developed.

#### STURT COLLEGE OF ADVANCED EDUCATION

Sturt College of Advanced Education was formerly Bedford Park Teachers College established in 1966 at the same time as the Flinders University of South Australia. The College was granted autonomy and renamed on 1 January 1973. The College occupied its present buildings in 1967. The site, of about 9 hectares, is located approximately 11 kilometres south of Adelaide and is adjacent to Flinders University.

At present the College offers programs within the School of Teacher Education and the School of Health Professions. Within the School of Teacher Education, the Diploma of Teaching is offered in the areas of junior primary, primary and secondary teaching. Students successfully completing the fourth year of study, usually all secondary and a selected number of primary student teachers, receive the award of Bachelor of Education. From 1977, a one-year full-time equivalent Graduate Diploma course in Community and School Relations has been offered.

From 1975 the School of Health Professions has offered three-year full-time courses in nursing and speech pathology and, in 1977, a one-year full-time diploma course in community health nursing and two-year diploma courses in radiography and nurse education are being offered. A bridging course is available for hospital-trained nurses who wish to study for the Diploma of Applied Science (Nursing) award. Most of the programs offered in the School of Health Professions utilise the facilities, and to a lesser extent, the staff of the Flinders Medical Centre which is situated a few hundred metres from the College.

#### TORRENS COLLEGE OF ADVANCED EDUCATION

Torrens College of Advanced Education, established as an autonomous college of advanced education on 1 January 1973, incorporates the former Western Teachers College and the South Australian School of Art, both of which were responsible to the Education Department. The Western Teachers College, established in 1962, had developed from two annexes begun in 1959 to relieve pressure on the Adelaide Teachers College. The South Australian School of Art was established in 1861 under the title of the School of Design and first received Commonwealth Government finance under the States Grants (Advanced Education) legislation in the 1967-69 triennium.

The Torrens College of Advanced Education Act, 1972 provided for the retention of the name of the SA School of Art. There are four other schools, the School of Teacher Education, the School of Applied Science, the School of Community Studies and the School of Performing and Expressive Arts.

The College at present occupies six sites within the metropolitan area. New buildings on a 27-hectare site at Underdale, which will eventually accommodate all schools of the College, were opened on 19 March 1976. The School of Teacher Education, and the School of Community Studies are at present housed in the new buildings, as are some of the Departments of the Schools of Applied Science and the South Australian School of Art. During 1978 the remainder of the South Australian School of Art will move to the new site.



In teacher education four-year degree courses are offered for secondary teachers in the specialised areas of art, technical craft, home economics, design (teaching), and music, and three-year diploma courses are available for primary teachers and for lecturers in colleges of further education. A fourth year of study leading to a Bachelor of Education (In-Service) award is also available to practising teachers who hold a Diploma of Teaching and who wish to improve their qualifications, or who wish to study Special Education. One-year courses leading to the Graduate Diploma in Teaching are available to students with appropriate degrees who wish to qualify as teachers of art and music in secondary schools or lecturers in colleges of further education. Instructors and training officers who do not require a full three-year Diploma may undertake a two-year full-time course (or its part-time equivalent) leading to an Associate Diploma in Further Education.

Outside the field of teacher education the College, through the School of Art, provides training at a tertiary level for those wishing to become practising artists, designers and craftsmen. A Bachelor of Arts course in Fine Art and diploma courses in Design require four years study on a full-time basis. Associate Diplomas are available through part-time study over four years. In the School of Performing and Expressive Arts, the College offers a three-year course leading to the award of a Bachelor of Arts-Performing Arts (Music) and a part-time course of four years has been introduced in 1978 which leads to an Associate Diploma in Arts (Opera). Also, for the first time in 1978, students will be enrolled into a two-year full-time course leading to an Associate Diploma in Aboriginal Studies.

**Colleges of Advanced Education, Students by Course Level and Field of Study  
South Australia**

Course	1974	1975	1976
<b>Master degree:</b>			
Para-medical .....	3	4	6
<b>Graduate diploma:</b>			
Agriculture .....	—	16	22
Applied sciences .....	36	41	39
Building, surveying and architecture .....	30	29	32
Commercial and business studies .....	53	202	226
Engineering and technology .....	—	—	3
Liberal studies .....	27	34	33
Music .....	—	1	8
Para-medical .....	12	7	8
Teacher education .....	764	740	999
Total .....	922	1 070	1 370
<b>Bachelor degree:</b>			
Applied sciences .....	197	304	321
Building, surveying and architecture .....	299	338	340
Commercial and business studies .....	1 092	1 091	1 080
Engineering and technology .....	634	662	663
Liberal studies .....	294	348	424
Para-medical .....	333	391	493
Total .....	2 849	3 134	3 321

**Colleges of Advanced Education, Students by Course Level and Field of Study  
South Australia (continued)**

Course	1974	1975	1976
<b>Diploma:</b>			
Agriculture .....	15	129	139
Art and design .....	277	284	300
Liberal studies .....	49	49	51
Para-medical .....	19	107	190
Teacher education .....	7 108	7 732	7 712
<b>Total</b> .....	<b>7 468</b>	<b>8 301</b>	<b>8 392</b>
<b>Associate diploma:</b>			
Agriculture .....	88	20	33
Applied sciences .....	28	46	33
Art and design .....	51	106	135
Building, surveying and architecture .....	162	223	187
Commercial and business studies .....	201	239	319
Engineering and technology .....	274	283	209
Liberal studies .....	—	160	375
Para-medical .....	117	187	180
<b>Total</b> .....	<b>921</b>	<b>1 264</b>	<b>1 471</b>
<b>Total:</b>			
Agriculture .....	103	165	194
Applied sciences .....	261	391	393
Art and design .....	328	390	435
Building, surveying and architecture .....	491	590	559
Commercial and business studies .....	1 346	1 532	1 625
Engineering and technology .....	908	945	875
Liberal studies .....	370	591	883
Music .....	—	1	8
Para-medical .....	484	696	877
Teacher education .....	7 872	8 472	8 711
<b>Total</b> .....	<b>12 163</b>	<b>13 773</b>	<b>14 560</b>

### FURTHER EDUCATION

The Department of Further Education, established in 1972, is responsible for a wide range of post-secondary educational activities conducted by community colleges and colleges of further education in all areas of the State. Adult education centres in the metropolitan area, which were administered from and located in secondary schools, are now administered from a community college or college of further education.

Much of the educational development is directed towards an improvement in vocational education. This includes the provision of courses for the employment sectors of industry, commerce and government. These courses are provided at many levels from basic trade (apprentice) to post-trade certificate and diploma level (see pages 208-9). Also associated with this vocational orientation are preparatory or general education courses.

The Department also caters for continuing education for people of all ages by providing a wide variety of general, academic, craft, art, cultural and general interest courses. The

Department gives more than 1 800 educational programs involving about 2 000 subjects for over 100 000 students throughout South Australia.

The following table shows the range of educational activities conducted by the Department of Further Education during 1976 and 1977, and student hours involved.

**Further Education: Distribution of Educational Activities, South Australia**

Courses	Student Hours			
	1976		1977	
	No.	Percentage of Total	No.	Percentage of Total
Degree and diploma .....	114 859	0.9	104 902	0.8
Technician or certificate or post-trade .....	3 260 106	26.6	3 829 298	28.1
Basic trade or apprenticeship .....	2 397 352	19.5	2 650 378	19.5
Other skilled trade and vocational .....	1 546 543	12.6	1 759 533	12.9
Preparatory or general education .....	2 208 636	18.0	2 578 005	19.0
General interest, enrichment and improvement .....	2 749 515	22.4	2 681 628	19.7
<b>Total .....</b>	<b>12 277 011</b>	<b>100.0</b>	<b>13 603 744</b>	<b>100.0</b>

There is a continuing trend towards greater diversification in courses undertaken and also towards an increase in the certificate level of study.

The following table shows the number of subjects and individual student enrolments in the years 1975, 1976 and 1977.

**Further Education: Enrolments, South Australia**

Course	1975	1976	1977
	SUBJECT ENROLMENTS		
Degree and diploma .....	585	3 766	2 727
Technician, certificate and post-trade .....	36 085	44 711	55 543
Basic trade or apprenticeship .....	24 372	24 487	25 359
All other skilled trade and vocational .....	17 408	27 634	29 448
Preparatory and general education .....	14 811	21 467	30 689
General interest, enrichment and improvement .....	36 728	47 529	51 145
<b>Total .....</b>	<b>129 989</b>	<b>169 594</b>	<b>194 911</b>
	INDIVIDUAL ENROLMENTS		
Degree and diploma .....	557	2 374	2 557
Technician, certificate and post-trade .....	19 888	25 196	30 153
Basic trade or apprenticeship .....	9 317	9 651	10 065
All other skilled trade and vocational .....	15 994	25 302	25 409
Preparatory and general education .....	9 953	16 466	24 542
General interest, enrichment and improvement .....	35 712	45 316	46 925
<b>Total .....</b>	<b>91 421</b>	<b>124 305</b>	<b>139 651</b>

The following table shows the numbers of staff employed in community and further education colleges.

## Further Education: Staffing, South Australia

Staff	1975	1976	1977
Full-time teaching .....	987	1 115	1 274
Part-time teaching (a) .....	2 635	3 320	3 627
Total .....	3 622	4 435	4 901
Non-teaching (ancillary) .....	562	578	678
Total .....	4 184	5 013	5 579

(a) The large number of part-time teachers in each year reflects the Department's policy to have teaching staff who are currently involved in activities in commerce, industry and government, and to provide courses for groups, particularly in country centres, where full-time staff are not warranted.

### Teaching Methods

The Department has continued in its efforts to improve public accessibility to courses by providing for the option of full-time, part-time or correspondence studies in a large number of courses. Special arrangements for country apprentices have continued to operate with success. Correspondence students have also been able to attend community and further education colleges for supervised study.

The integrated training approach to vocational education continues to develop in many colleges. The more traditional divisions of technical courses into theory, drawing and practical plus on the job experience, have been broken down. Integration of course work on a project basis has resulted in a more meaningful learning experience for the students.

During 1977 there was a continuing involvement by teachers in the production and utilisation of different kinds of multi-media materials. Many colleges now produce and use a wide range of learning materials to meet this need. These materials which include slide and overhead transparencies, video tapes, and audio tapes as well as multi-media packages have become increasingly available for internal and external students.

The Multi-Media Centre, located as a school of the Kilkenny Branch of Regency Park Community College, provides a State-wide service in the production of learning materials and their usage. Part of this service has been to produce a number of video programs for general distribution and educational television service for a number of teachers.

During 1977 there has been a continuing expansion in the facilities of college library/resource centres. Books, periodical collections, sound and video tapes, slides and transparencies have all been increased. The appointment of Lecturer-Librarians to many colleges has been a major factor in developing the concept of the resource centre as an important part in the learning process.

### Administration

Community colleges, colleges of further education and schools of the Adelaide College of Further Education function along autonomous lines. This autonomy encompasses enrolments, staffing at the lecturer and teacher levels and budgeting within the State allocations.

The Operations Division is responsible for translating established policies into operational programs particularly in the areas of curriculum, staff training and development. The Resources Division services all areas of the Department with emphasis upon research, building, educational resources, administration, finance and clerical services.

### **Current and Future Developments**

The major areas of change and emphasis include the following inter-related developments:

- the continuing development of the community college, both conceptually and physically;

- the further development of general studies in colleges which were predominantly technical by tradition, with the emphasis on preparatory, remedial and bridging courses;

- the adaptation of the 'open university' approach to education so as to reach a broader sample of the South Australian population at the post-secondary level;

- the multi-media emphasis in the teaching-learning situation in conjunction with the planned development of library/resource centres;

- the further development of teaching staff with the appointment of staff-development officers;

- extended provision for student welfare by the development of College Counselling Services and associated staffing; and

- co-operation and co-ordination in curriculum matters with other post-secondary institutions, and increased community involvement in educational planning.

### **Block Release Training**

A new form of technical education known as Block Release Training was introduced in 1973 for country apprentices in some trades in which apprentices previously were required to study by correspondence. It involves first and second year apprentices, who live outside a technical school district, attending a metropolitan college for a total period of eight weeks each year. In some cases it is four blocks of two weeks and in other cases two blocks of four weeks. These apprentices receive the same training as those employed in the metropolitan area and in country school districts and are not required to undertake any correspondence course training. The Apprenticeship Commission arranges accommodation in the government hostel at Pennington, or private accommodation may be arranged, with a subsidy being payable in both cases.

### **Workers Educational Association of South Australia**

The Workers Educational Association of South Australia Incorporated (WEA) was established in 1914. Originally patterned on the English WEA, it is a voluntary adult education organisation which works in close co-operation with other adult education organisations, and the trade union movement.

Activities it organises include a comprehensive day and evening class program, postal courses for trade unionists, and support for an international adult and children's film festival. It possesses an adult education centre in the City. Courses are offered at the University of Adelaide, The Flinders University of South Australia, the Institute of Technology, and the Murray Park and Salisbury Colleges of Advanced Education.

In 1975 there were 307 classes with a total enrolment of 10 150 students organised by the WEA and a further 20 postal courses with an enrolment of 1 509. Since 1973 a program of trade union education has been developed with the aid of a State Government grant. More than 1 000 full-time and honorary officials, shop stewards and union members attended courses in 1975, studying industrial democracy, economics, workers compensation, communications, arbitration processes, grievance diagnosis, and other relevant subjects.

### University of Adelaide: Department of Continuing Education

The University initiated adult education classes in 1917 under a Department of Tutorial Classes. A Department of Adult Education was established in 1957 and was renamed the Department of Continuing Education in 1977.

The Department provides lectures, discussion courses and short schools in a range of subjects for members of the general public and arranges seminars on topical issues. It has a publications program based on proceedings of the schools and seminars including *Alitji In The Dreamtime*, the Pitjantjatjara version of *Alice In Wonderland*, and has published four comprehensive natural history studies. It arranges courses also for the continuing education of professional people.

In June 1972 the University opened an educational radio station under the call sign 5UV. Established by private donation of \$100 000 the station is administered by the Department of Continuing Education and costs are met by the University and by listeners' subscriptions. Since its opening the station has provided structured courses for professional people and the general public as well as providing educational, cultural and musical programs.

In 1975, 5UV began operating under the conditions of a new experimental broadcast licence which has enabled an expansion of its educational work. In addition it now offers access programs in which approximately twenty-eight ethnic communities participate.

Total enrolments for all departmental activities during 1977 were 5 653 and an estimated 150 000 listened to 5UV broadcasts.

### TRADE EDUCATION

Legislation governing apprenticeships in South Australia is contained in the Apprentices Act, 1950-1978 which is administered by an Apprenticeship Commission consisting of a full-time chairman and five part-time members representing employer organisations, trade unions and the Minister of Education.

An employer must receive the approval of the Commission before he can employ an apprentice. In addition, the employment of all adult apprentices must be approved by the Apprenticeship Commission. The Commission determines the term of indenture in any particular trade and no term can exceed four years.

#### Number of New Apprenticeships Commenced: Trade Groups, South Australia

Trade	1973	1974	1975	1976	1977 <sub>p</sub>
Metal . . . . .	1 191	1 535	1 285	1 281	1 431
Electrical . . . . .	403	421	403	389	366
Building . . . . .	535	529	551	610	626
Furniture . . . . .	221	234	208	214	168
Printing . . . . .	92	115	59	67	70
Vehicle industry . . . . .	142	180	167	175	155
Ship and boat-building . . . . .	10	18	11	6	6
Bootmaking . . . . .	18	7	17	10	7
Clothing . . . . .	1	—	1	1	1
Coopering . . . . .	2	6	2	1	1
Food . . . . .	228	215	257	249	201
Hairdressing . . . . .	402	348	289	321	282
Leather and canvas goods . . . . .	4	3	1	5	—
Miscellaneous . . . . .	20	20	15	32	21
<b>Total all trades . . . . .</b>	<b>3 269</b>	<b>3 631</b>	<b>3 266</b>	<b>3 361</b>	<b>3 335</b>

The following table shows the number of new apprenticeships commenced, indentures completed, indentures cancelled, and apprentices employed at 31 December for the years 1973 to 1977.

#### Apprenticeships, South Australia

Particulars	1973	1974	1975	1976	1977
New apprenticeships commenced . . . . .	3 269	3 631	3 266	3 361	3 335
Number of indentures completed . . . . .	2 229	2 477	3 463	2 318	2 788
Number of indentures cancelled . . . . .	386	439	484	497	486
Number of apprentices employed . . . . .	11 186	11 948	11 184	11 559	11 856

The technical education of apprentices is the responsibility of the Minister of Education but the Commission has authority to make recommendations to the Minister on matters affecting their technical education.

Apprentices are required to attend colleges of further education during working hours for eight hours a week or an eight week course in the first and second year. Exceptions occur for certain trades where the apprentice must attend, during working hours, a technical college for twenty-four hours (three days) for every four weeks the college is open for instruction during the first, second and third years after commencement of his course.

Although apprentices are required to attend a college of further education to complete basic training (normally three years), facilities are provided for those showing ability to attend voluntarily for a fourth year. During these years, apprentices normally commence studies of an advanced nature most of which are components of various Post-Trade Certificate courses which the apprentices are encouraged to complete as adults. These advanced subjects, and others designed to meet special demands for training in new processes and techniques, are also available to adult tradesmen and others employed in industry.

#### Effective Apprentice Enrolment in Colleges of Further Education, South Australia

Colleges	1973	1974	1975	1976	1977
Metropolitan colleges of further education . . .	7 903	7 385	7 594	7 737	8 891
Country colleges of further education . . . . .	1 280	1 156	1 102	1 247	1 169
College of External Studies (a) . . . . .	837	516	202	177	5
Total . . . . .	10 020	9 057	8 898	9 161	10 065

(a) Includes Northern Territory apprentices.

Since 1960 the Commonwealth Development Bank has awarded Post-Apprenticeship Scholarships annually to financially assist young tradesmen and outstanding apprentices to further their education and technical qualifications. The scholarship scheme is administered on behalf of the Bank by the Australian Apprenticeship Advisory Committee. Twelve scholarships were awarded to South Australians in 1977, the same number as in 1976.

#### Commonwealth Rebate for Apprentice Full-time Training System

On 15 January 1977 the Commonwealth Rebate for Apprentice Full-time Training System (CRAFT) was introduced to replace the National Apprenticeship Assistance

Scheme. CRAFT is designed to encourage employers to engage more apprentices and to provide improved training in basic practical skills during the early years of apprenticeship.

A tax-exempt rebate is payable to all employers who release their apprentices to attend basic trade technical education. The rebate is \$12 or \$16 for each day of release depending on the stage of schooling.

In addition to these basic payments, tax-exempt rebates are payable to employers to encourage them to allow their apprentices to engage in full-time off-the-job training in basic practical skills. Where an employer provides full-time training to approved standards, or releases apprentices for full-time training in appropriate courses at technical education institutions or in other approved training centres, a rebate of \$6 per day for each eligible apprentice is payable for the duration of the approved course. This rebate is available for periods of full-time off-the-job training during the first three years of the apprenticeship from a minimum of twenty full working days up to a maximum of 260 full working days, provided that not more than 130 days of the training are taken during the second and third years of the apprenticeship. Employers who make available their own training facilities for use by other employers are eligible for a further subsidy which is determined by the Department of Employment and Industrial Relations and related to the recurrent costs of training provided.

A group training scheme exists whereby apprentices, sponsored by employers in the private sector and engaged as additional apprentices to the employers' normal annual requirements, receive full-time off-the-job training in a Commonwealth or State Government Training Centre during the first year of their apprenticeship. Wages and costs relating to this year of training are paid by the Department. Further, to assist small employers in providing approved additional skills training for their apprentices, the Department promotes and subsidises co-operative group training schemes under the provisions of the CRAFT system.

A living-away-from-home allowance is payable to both country and metropolitan apprentices required to live away from home in order to obtain or remain in an apprenticeship. This allowance, which offsets some of the extra costs associated with living away from home, is paid at the rate of \$19.80 per week for first year apprentices and \$7.60 per week for second year apprentices. Income tax instalments are deducted from each living-away-from-home allowance payment.

The employer rebates shown were effective from 1 January 1978 and are subject to indexation adjustment to allow for award wage movements.

## OTHER TRAINING

### Trainer Training and Training Development Services

As part of its responsibility in implementing an effective national manpower policy, the Department of Employment and Industrial Relations has established Training Development and Trainer Training services to improve the extent and quality of training practices throughout industry and commerce. In addition, an advisory service is provided to assist companies to start or extend training in a systematic way.

Training Development provides an advisory service aimed at the promotion of additional and better training in, and for, industry and commerce. Activities include assisting Industry Training Advisory Committees to examine specific manpower problems and the distribution of *Training Talkback*, the journal of the National Training Council. In addition to publicising the training services of the Department, the Service acts to create an awareness of all training resources available in South Australia. Another responsibility is the administration of the Manpower Development Officer Subsidy Scheme and the Training Assistance Program, under which training incentives are offered to firms and associations.



The general aims of the Trainer Training Service are to promote training as a concept in industry and commerce; to improve training and to assist individuals who need training to adjust to the labour market. The Service is directed at those with responsibilities for training others, including manpower training—instructional specialists and line personnel with duties for administering or implementing training. The Service is divided into several trainer training areas: Training Officer Service, Instructor Service and a Supervisor Trainer Service.

The Training Officer Service is provided to train Training Officers and Manpower Development Officers. This is achieved by an eighteen-week Training Officer Course which is conducted in Adelaide, Melbourne and Sydney. The course covers the following broad topics at Supervisor and Operator level: Assessment of Training Needs; Development of a Course; Conduct of a Course; Evaluation of Results; and Administration of a Course. The eighteen weeks include eight weeks in a training centre and two, five-week practical assignments in a host company or organisation.

The Instructor Service aims to provide basic instructional techniques for those who instruct groups of employees and those who provide individual instruction on the job. During 1977 Group Instructor, Operator-Instructor and Clerk-Instructor courses were given.

The Supervisor Training Service aims to provide resources to trainers to meet some basic needs of supervisors. Trainers in this Service may be engaged in full-time or part-time training duties. The courses covered include Instruction-Communication, Interpersonal Relations, Accident Prevention and Method Improvement.

### **National Employment and Training System**

The National Employment and Training System (NEAT) provides a comprehensive system of labour training able to remedy labour imbalances in industrial sectors and geographical regions. NEAT forms a basis for the Commonwealth Government's manpower policy, and is designed for operation by the Commonwealth Employment Service with the following broad objectives:

- to alleviate unemployment wherever it may occur and to overcome shortages of skilled labour;
- to assist in the long-term restructuring of the workforce, promote regional development, and improve the general level of available skills;
- to serve the social and economic needs of the community by means of special assistance, guidance, remedial training, and other measures designed to improve employment opportunities.

The NEAT System superseded other employment training schemes such as those for women, widow pensioners, war widows, persons displaced by redundancy or technological change, Aborigines, general retraining for employment, rural reconstruction, permanent forces resettlement, disabled members of the forces, former regular servicemen, and national servicemen; these schemes were designed for specific categories of people. NEAT assistance is available to persons genuinely needing help to find suitable employment. Individuals assisted under NEAT must have specific employment objectives, which should be realistic for the individual and compatible with the requirements of the labour market.

Approved training can be undertaken full-time or part-time at training institutions, within industry or commerce, or by correspondence course. Persons undertaking full-time formal studies through NEAT are paid a weekly allowance. Companies providing on-the-job training for NEAT trainees receive a percentage of the average adult male award wage as a subsidy.

The Special Youth Employment Training Program (SYETP) has been introduced as an extension of the NEAT system to provide young people (who have had difficulty finding employment) with marketable skills and work experience by subsidising employers willing to provide training.

Further information is available at all offices of the Commonwealth Employment Service.

#### Former Regular Servicemen's Vocational Training Scheme

The objective of the Former Regular Servicemen's Vocational Training Scheme (FRSVTS) is to assist former regular service personnel who have long service, or who have retired on medical grounds, to re-establish themselves in the civilian workforce.

Assistance under FRSVTS is available to former regular service persons who have either been honourably discharged after completing at least fifteen years effective full-time service or who have been discharged on grounds of invalidity. To qualify for assistance under FRSVTS it is not necessary for the applicant to be seeking training for an occupation in demand in the labour market as is the case with the National Employment and Training System (NEAT).

Approved training is normally undertaken full-time or part-time in established public educational training institutions. Courses considered as non-vocational will not be approved. Approved trainees are paid NEAT allowances subject to the same income qualifications as NEAT.

There is no provision under FRSVTS for on-the-job training, and therefore consideration may be given to training of this type under NEAT. The fact that a person has completed training under FRSVTS does not exclude him or her from consideration for on-the-job NEAT training.

#### STATE EXPENDITURE ON EDUCATION

The following tables show details of outlay and receipts by the South Australian Government on education for the year 1976-77.

#### Consolidated Revenue Account: Receipts and Outlay on Education South Australia, 1976-77<sup>(a)</sup>

Particulars	Outlay				Total Receipts (b)
	Purchases of Goods and Services	Current Grants to Private Non-profit Organisations	Less Charges for Goods and Services Supplied	Total (Including Other)	
			\$'000		
General administration, regulation and research .....	13 129	26	1 743	12 233	104
Transportation of students .....	4 606	—	61	5 861	132
Primary and secondary education .....	242 182	7 158	168	258 376	23 834
Vocational training .....	18 796	4	7	19 695	4 679
University education (c) .....	1	—	33	—32	—
Other higher education .....	6 404	—	492	10 309	1 204
Other education programs:					
Handicapped children .....	3 415	1	—	3 416	—
Adult education .....	7 364	60	824	6 600	—
Pre-school and childcare .....	1 574	334	—	11 868	6 989
Other .....	1 372	308	—	1 689	443
<b>Total .....</b>	<b>298 843</b>	<b>7 891</b>	<b>3 328</b>	<b>330 015</b>	<b>37 385</b>

(a) Charges for goods and services supplied have been excluded from receipts and deducted in calculating outlay.

(b) Mainly grants from Commonwealth Government.

(c) Includes expenditure on general research.

## Loan Fund: Receipts and Outlay on Education, South Australia, 1976-77

Particulars	Outlay			Total Receipts (a)
	New Fixed Assets	Existing Assets	Total (Including Other)	
			\$'000	
General administration, regulation and research .....	—	—	—	402
Transportation of students .....	1 579	—	1 579	—
Primary and secondary education .....	39 222	1 259	40 481	13 058
Vocational training .....	9 542	638	10 180	2 143
University education .....	—	—	—	22
Other higher education .....	35	—	35	153
Pre-school and childcare .....	—	—	—	—
Total .....	50 378	1 897	52 275	15 778

(a) Mainly grants from Commonwealth Government.

## TRAVEL TO SCHOOL

A sample survey was conducted in August 1974 to obtain information about the principal means of transport by which full-time students of all ages travelled to school, university or other educational institutions, the time at which they usually left home and the time usually spent on the journey. Details of the survey are available in the bulletin, *Journey to Work and Journey to School*, August 1974 (Catalogue No. 9205.0) published by the Australian Statistician.

## 6.3 SCIENTIFIC AND RESEARCH ORGANISATIONS

## AUSTRALIAN MINERAL DEVELOPMENT LABORATORIES

The Australian Mineral Development Laboratories (AMDEL) is a non-profit contract research and technical consulting organisation serving the mineral industry in Australia and overseas. AMDEL is controlled by a Council with representation from the State and Commonwealth Governments and the Australian Mineral Industries Research Association Ltd. Funds are provided for the continuance of the laboratories by annual guaranteed contributions. A wide range of services are offered including chemical analysis, mineralogy, petrology, computer techniques, ore reserves calculations, mine planning, mineral engineering, chemical metallurgy, process control, materials science, plant evaluation, process design and commissioning and environmental studies.

AMDEL employs approximately 160 people, including about seventy with professional degrees. It maintains extensive laboratories and pilot plant equipment in Adelaide, and has a small laboratory in Perth, and a resident representative in Indonesia.

Contract research earnings are approximately \$3 million annually.

## AUSTRALIAN MINERAL FOUNDATION

The Australian Mineral Foundation has been established by the industries, institutions and departments concerned with minerals and petroleum. It is administered by a council representative of these groups.

The mining and petroleum industries are confronted with a rapid development in technology and a continual requirement for transmitting new information both to operating staff and to postgraduate students. The Foundation fills this communication need in several ways:

by providing short-term concentrated training courses for professional and other specialised staff;

- through the medium of symposia, conferences and distinguished lecturers;
- through a specialised resource centre including a geoscience library and information service;
- by selective film showings.

In addition it makes available an auditorium, seminar rooms and offices.

### AUSTRALIAN WINE RESEARCH INSTITUTE

The Australian Wine Research Institute situated at Urrbrae promotes research and other scientific work for the Australian wine industry; it was established in 1955, having grown from a small research unit formed in 1934 within the University of Adelaide.

The Institute is administered by a nine-member council consisting of representatives from the Australian wine industry, the Commonwealth Government, the Commonwealth Scientific and Industrial Research Organization, the University of Adelaide, and scientific advisers.

Comprising laboratories and an experimental winery, the Institute conducts research into wines, brandies, and winemaking, and specialises in the microbiology and chemistry of wines and brandies. A technical advisory section assists commercial winemakers with technical problems. Tested yeast cultures for wine fermentation are made available to the wine industry.

The John Fornachon Memorial Library maintained by the Institute is a specialised library of technical literature on wine.

### COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION

The Commonwealth Scientific and Industrial Research Organization (CSIRO) is Australia's largest research organisation. It is a statutory body created by the Commonwealth Government in 1949 to replace the former Council for Scientific and Industrial Research (CSIR), which had been established in 1926. The powers and functions of CSIRO include scientific research in connection with Australian primary and secondary industries or any other matter referred to it by the Minister for Science, the training of scientific research workers and the awarding of studentships, the making of grants in aid of scientific research, the recognition and support of research associations, the maintenance of the national standards of measurement, the dissemination of scientific and technical information and the publication of scientific and technical reports.

CSIRO is governed by an Executive comprising a full-time Chairman, four other full-time members, and four part-time members. The Organization has thirty-seven research Divisions, three of which have their headquarters in South Australia: these are the Divisions of Horticultural Research; Human Nutrition; and Soils.

#### **Division of Horticultural Research**

This Division is concerned with research on perennial horticultural plants. It has its headquarters and a laboratory in Adelaide, and a laboratory and field plantings at Merbein, Victoria.

At the Adelaide laboratory, research is concerned with physiology and biochemistry of horticultural plants. Under study are selected aspects of vegetative and reproductive growth and the factors which control them; the anatomy of fruits and seeds; fruit

biochemistry; asexual plant breeding; and the effects of salinity on plant performance. Other work deals with research on plant parasitic nematodes and on the domestication of Australian native plants.

At Merbein, the Division is concerned with more applied research on grapevines and a wide range of tree crops. Viticultural research is concerned with vine improvement by vine introduction and evaluation, and by hybridisation of known varieties. The aim is to extend the range of grapevine varieties suitable for growing in Australian conditions. Associated with this research is the detection of vine viruses and the determination of their effect on productivity and, where possible, elimination of harmful viruses in grapevines. Research into vine productivity is mainly concerned with the development of management systems to optimise yields and minimise production costs.

Tree research is aimed at both the provision of new horticultural crops, including avocados and pistachios, for inland irrigated regions of southern Australia and the evaluation of horticultural crops with potential for central and north-western regions of the continent. Trial plantings of these crops have been established at a number of representative localities as well as Merbein. The Division has an officer at Darwin, Northern Territory, to supervise these field plantings.

#### **Division of Human Nutrition**

The Division of Human Nutrition is accommodated in laboratories in the grounds of the University of Adelaide and at the Glenthorne laboratories, O'Halloran Hill. The interests of the Division include:

- (1) studies in epidemiology with reference to nutrition in adolescents and young adults, and in Aboriginal infants;
- (2) biochemical and physiological studies involving the functions of minerals and trace elements in human nutrition;
- (3) aspects of human metabolism and digestion.

#### **Division of Soils**

The Division of Soils is one of three Divisions comprising the Land Resources Laboratories along with the Division of Land Use Research (centred in Canberra) and the Division of Land Resources Management (centred in Perth). The research program of this Division is concerned with the use of soils in agriculture and forestry, and the role of soils and soil materials in hydrology, plant growth and as habitats for flora and fauna. The work is organised into several programs, each of which comprise a number of projects. Because soil is a complex mixture of organic and inorganic materials, with a micro-flora and micro-fauna that vary with the material from which it was formed, the climate in which it occurs, and the plants and animals that occupy its surface, very few problems in soils are capable of an undisciplinary solution.

Scientists in the Division are loosely grouped together to tackle problems in four major areas namely (1) to provide an inventory of Australia's soil and water resources; (2) to maintain and improve plant production through modifying the chemical, physical and biological properties of soils; (3) to understand the principles of erosion with a view to its control; and (4) to identify and correct soil problems arising from natural and man-made alteration of the environment. Within each area understanding of the fundamental processes occurring in soils is sought along with practical solutions to problems arising from the use of soils.

The headquarters laboratory is in Adelaide, with smaller groups in regional laboratories in Brisbane, Canberra, Hobart, and Townsville. About half the staff are in the Adelaide laboratories.

### **Division of Tribophysics**

The former South Australian Branch of the Materials Research Laboratories (MRL) at Woodville North was transferred from Department of Defence to CSIRO on 1 September 1977.

The greater part of the branch has been incorporated into the Division of Tribophysics which also has laboratories at Parkville, Fishermens Bend and Fitzroy in Victoria. The former Standards Section of MRL, however, has been attached to the CSIRO National Measurement Laboratory of Sydney and has become the National Measurement Laboratory (Adelaide Branch).

The research program of the Division of Tribophysics comprises research projects in the fields of Materials Science, Surface Science, Ceramics and Process Technology.

The Division's Adelaide Laboratory will in future be concerned with industrial process technology and facilities are being set up at the present time for the undertaking of research on an industrial scale in welding, in ferrous casting, in high energy rate forging and in aspects of surface coating. Research and development in electrography as previously carried out by MRL will also be continued.

Process technology research, as carried out in the Division's Adelaide and Fitzroy laboratories, is undertaken for the purpose of providing new and improved methods and processes for use in Australian manufacturing industry. The work of the Adelaide laboratory will in future be devoted entirely to this purpose.

### **National Measurement Laboratory**

National Measurement Laboratory (NML), Sydney is responsible for the establishment and maintenance of the Commonwealth legal standards for the measurement of physical quantities. The laboratory has a number of research programs including studies in solid-state physics, the physics of fluids, optics, magnetic and dielectric properties of materials, acoustics and vibration.

An Adelaide Branch of NML was formed at Woodville North in September 1977 incorporating staff and facilities from part of the former South Australian Branch of Materials Research Laboratories, Department of Defence. The role of the laboratory includes the establishment of a close liaison with industry and Government departments to assist in solving problems associated with precise measurements using staff expertise from both the Sydney and Adelaide laboratories. The branch also provides a calibration service in certain fields particularly in temperature, electrical and physical (mass, volume, density) metrology.

The laboratory is involved with measurement of the thermal characteristics of heat insulating materials and an extension of existing facilities, into higher temperature areas, is being planned.

## **INSTITUTE OF MEDICAL AND VETERINARY SCIENCE**

The Institute of Medical and Veterinary Science was established in 1937, under the Institute of Medical and Veterinary Science Act, 1937-1975, to incorporate the functions of the former Adelaide Hospital Laboratory. The Director of the Institute is the chief executive officer of the council which is responsible to the Minister of Health.

The Institute provides diagnostic facilities in all branches of laboratory medicine for the Royal Adelaide Hospital and other metropolitan and country hospitals, for public health authorities, for industry, and for private practitioners. It also undertakes work in all branches of veterinary pathology for the Department of Agriculture and Fisheries and for veterinary practitioners and stockowners. Research is conducted into selected problems

connected with disease in man, and in animals. The staff of the Institute takes part in the teaching of the medical sciences to graduates, students and technicians.

The Institute is financed partly by an annual grant from the State Government, and by its earnings from private practice in laboratory medicine. Its research and development projects are assisted by the National Health and Medical Research Council of Australia, the Australian Wool Corporation, the Australian Meat Board, the Australian Research Grants Commission, certain private firms and by private benefactors.

At the Royal Adelaide Hospital the Institute operates a Blood Transfusion laboratory, a Division of Nuclear Medicine and undertakes all required autopsies. Institute medical staff also take an active part in patient care by providing the clinical requirements of certain wards of the Royal Adelaide Hospital. To meet the growing need for blood transfusion and laboratory services in rural areas, regional laboratories, staffed and administered by the Institute, have been established in nine towns.

The increase in volume of work is reflected in the increased number of tests performed: 27 000 in 1938-39; 175 528 in 1952-53; and 3 786 042 in 1976-77. Sections of the Institute that have recently grown in size and importance are the Renal Pathology Unit, the Gastro-Intestinal Pathology Unit and the computer section.

#### The Institute of Medical and Veterinary Science

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
Staff at end of year:					
Graduate .....	111	164	176	190	215
Other .....	448	481	510	559	612
Tests performed .....	2 036 425	2 470 909	2 878 886	3 499 097	3 786 042
Revenue:			Dollars		
State Government grant	2 280 000	3 330 000	5 377 441	1 000 000	1 110 000
Fees for laboratory tests	1 145 815	1 292 342	1 508 577	7 569 329	9 454 380
Other .....	184 054	309 097	292 088	352 798	497 846
Total .....	3 609 869	4 931 439	7 178 106	8 922 127	11 062 226
Expenditure:					
Salaries and wages ....	2 691 840	3 725 993	5 474 257	6 916 506	8 221 136
Other .....	836 114	1 240 932	1 404 025	2 149 419	3 239 343
Total .....	3 527 954	4 966 925	6 878 282	9 065 925	11 460 479

A computerised system of laboratory reporting, accounting and data storage for rapid retrieval has been introduced and is progressively being developed. There are three remote terminals linked to the central computer, one at Modbury Hospital, one at the Lyell McEwin Hospital and one in the Casualty Section of the Royal Adelaide Hospital; further units will be provided in the intensive care wards. Telex links are operating to Port Lincoln, Port Augusta, Whyalla, Mount Gambier, Naracoorte, Keith, Murray Bridge, Coober Pedy and Berri. Plans are developing for the Institute's computing service to be the base for an independent State laboratory computing organisation to cover the needs of several other large hospital laboratories in the metropolitan area.

The Division of Tissue Pathology has now been closely linked with the University of Adelaide by the joint appointment of a Professor of Tissue Pathology, University of Adelaide and Head of the Division of Tissue Pathology, Institute of Medical and Veterinary Science.

## WAITE AGRICULTURAL RESEARCH INSTITUTE

The Waite Agricultural Research Institute was established, within the University of Adelaide, in 1924. The research projects conducted at the Institute cover a wide range of topics, of which the following are a few examples: relationship of stocking rates to pasture composition and fertiliser practices; the protein chemistry of the wheat grain; the genetics and breeding of cereals and pasture plants; flower and fruit development in horticultural plants; studies on soil-borne and virus diseases of plants; biological control of insect pests; the biochemistry of nitrogen fixation; and the studies of soil structure and mechanics.

Further details relating to the Waite Institute may be found in Part 6.2 Education.

## DEFENCE RESEARCH CENTRE

The Defence Research Centre (formerly Weapons Research Establishment), situated at Salisbury, is the largest of a number of establishments within the Defence Science and Technology Organisation of the Commonwealth Department of Defence, and is responsible for research and scientific development in relation to defence, including the operation of the Joint United Kingdom-Australia Project for the conduct of trials.

The Defence Research Centre is concerned with the research, development and testing of guided missiles and research and development in other defence areas including aerodynamics, ordnance, electronics, computing, systems analysis and operational research.

The headquarters of the Defence Research Centre occupies an area of 1 170 hectares at Salisbury. The total strength of the Centre, including staff at Salisbury and Woomera, was about 3 300 at January 1978. Facilities within the area have been provided for branches of firms which have contracts in the defence field.

The Centre comprises four main sections or wings, namely, Trials Wing, Applied Physics Wing, Weapons Research and Development Wing, and Engineering Wing. Trials Wing is responsible for the operation and development of the Woomera Range, for the planning and conduct of range trials and associated activities relating to the use of the range, and for the processing and analysis of trials data. Applied Physics Wing is responsible for Australian defence research programs in the fields of electronics, optics, systems analysis, radio and optical propagation, radar, lasers, infra-red surveillance and electronic warfare. Weapons Research and Development Wing supports Australian defence and development programs in the fields of aero-ballistics, ordnance research, weapon systems and marine physics. Engineering Wing undertakes the design, development, prototype manufacture and testing of engineering equipment and systems to support the work of the Centre. This Wing is also responsible for engineering services, maintenance, drafting, library services and documentation in the communications, electronics and mechanical engineering fields.

A testing range is situated at Woomera, approximately 500 kilometres north-west of Adelaide. Woomera township, with modern amenities including a hospital, school, kindergarten, community store, swimming pool and numerous sporting facilities, was built to accommodate the range staff and allied service personnel and their families. Woomera has a total population of about 2 760 which includes working staff, their dependants and other supporting and business personnel.

Edinburgh Airfield which adjoins Defence Research Centre at Salisbury is the headquarters of the Royal Australian Air Force (RAAF) in South Australia and is a fully operational RAAF base. When necessary, aircraft associated with joint project or other trials are operated from this base.

A special article on the Defence Research Centre together with maps and diagrams was included on pages 184-92 of the *South Australian Year Book* 1969.



### United States Space Projects

As a result of an agreement between the Australian and United States Governments a Defence Space Communication facility has been constructed near Woomera.

## 6.4 CULTURE AND RECREATION

### LIBRARIES

#### The State Library

The State Library of South Australia has its origin in a collection of books assembled in London in 1834, two years before the province of South Australia was founded. The modern character of the Library was established in 1940 when, after the Price Report of 1937, the Library was separated from the Museum and Art Gallery and became a State Government department administered by the Libraries Board of South Australia.

The oldest section of the Library is the Reference Library, which is the central basic collection. Since 1946, except for rare irreplaceable volumes and reference works, most of the books have been available for loan. Over 4 200 periodicals are received annually, and the Newspaper Reading Room files nearly 300 overseas and Australian newspapers; in 1976-77, 49 700 periodicals were lent. In the same year the Map collection answered a record number of over 12 900 inquiries for its 64 000 maps. Legislation since 1878 provides for the deposit in the Library of copies of all items published in South Australia.

The Reference Library has a representative basic collection of nineteenth and twentieth century material in all subjects except medicine and law. It has considerable strength in a number of subjects including librarianship, wine, jazz, Australian Aborigines, River Murray shipping, sailing ships, and nineteenth century illustrated works on natural history. In addition there is a collection of tape recordings of Australian authors, folk songs and Aboriginal music. The Library is an official depository for the publications of the Australian, British and Californian Governments, and receives selected publications from the United States Government and the United Nations.

In 1976-77 the Reference Services Branch answered 177 000 inquiries. This Branch supplies lists of references and arranges for the borrowing of books, periodicals and photocopies from libraries in other States and overseas. *Pinpointer*, a bi-monthly index to popular periodicals and the quarterly *Index to Australian Book Reviews*, are published.

In 1919 the Archives Branch was established for the collection of original South Australian historical material. In 1925 legislation was passed requiring reference to the Libraries Board before destroying or disposing of public documents. At the end of June 1977 there were 11 800 metres of occupied shelf space in the Archives. In 1976-77, 7 410 inquiries were dealt with involving 26 100 issues of documents, views, maps or printed sources. A journal, *South Australianiana*, is published twice a year.

The Young People's Services Branch includes the Children's Services and the Youth Lending Service. The Children's Services, formerly the Children's Library, was established in 1915 and is believed to be the oldest in Australia. The carefully selected stock includes some 15 300 books in the Children's Literature Research Collection, a special collection assembled to assist in the study of children's books. School classes visit the Library, and talks and stories are addressed to groups of children, both inside the Library and at outside venues, and to groups of parents and various societies. There are 23 000 registered borrowers in the metropolitan area and books are sent to 4 300 country children living in areas that do not have a public library.

To cater for the needs of young people between the ages of thirteen and eighteen the Youth Lending Service was established in 1957. Over 22 400 young people from the metropolitan area and country places are enrolled as members in the Service. The collection includes, besides general literature, publications of special interest to young people dealing with hobbies and careers. Cassettes, posters and paperbacks are also available for loan.

#### State Library of South Australia

Year	Refer- ence Library	Children's Services	Adult Lending Services	Central Pool for Local Public Libraries	Youth Lending Service	Total
At 30 June:			VOLUMES HELD			
1973.....	308 000	51 000	69 000	232 000	21 000	682 000
1974.....	320 000	63 000	93 000	175 000	24 000	675 000
1975.....	339 000	65 000	85 000	155 000	22 000	666 000
1976.....	355 000	64 000	67 000	180 000	25 000	691 000
1977.....	371 000	64 000	80 000	180 000	23 000	718 000
To 30 June:			VOLUMES LENT			
1973.....	108 000	246 000	466 000	—	122 000	942 000
1974.....	109 000	247 000	521 000	—	111 000	988 000
1975.....	113 000	263 000	609 000	—	118 000	1 103 000
1976.....	94 000	244 000	656 000	—	126 000	1 120 000
1977.....	96 000	262 000	861 000	—	133 000	1 352 000

In 1938 a Country Lending Service was established to provide books for residents in the country districts of the State, none of which had a free local public library at the time. The service continues today, but is restricted to residents of local government districts which have not been provided with their own public library service, and to people in the unincorporated districts of the State. In 1946 the Adelaide Lending Service was founded so that residents of the metropolitan area might enjoy direct borrowing privileges. In 1972 these two services were amalgamated to form the Adult Lending Services Branch, and at the same time the children's and young people's collections previously functioning as part of the Country Lending Service were taken over by the Children's Services and Youth Lending Service respectively.

Since 1972, the Adult Lending Services Branch has enlarged its collection to include large print and foreign language books and periodicals, paperbacks, prints, posters, and cassettes, including music, spoken word and 'learn the language'. There are in excess of 6 000 cassettes in the collection and, despite a limit of two per borrower, loans exceeded 84 000 in 1976-77. Car manuals, musical scores and drama sets are also available. The Branch supplies bulk loans to several hospitals and institutions, and to a number of prisons in South Australia. Extension services also cater for housebound residents and invalids. Non-technical inquiries and requests for information are dealt with at the Readers Adviser Desk. The total number of adult borrowers in the metropolitan area is in excess of 68 600, and there are more than 5 500 adults in the country registered as borrowers from the Adult Lending Services.

Photographic and electrostatic copying facilities are available to the public. In 1962 the Libraries Board began an extensive program of publishing facsimile editions and other works of Australian interest. Over 170 works have now been published, including the first

edition ever of *The Journal of Post Captain Nicolas Baudin*. Other publications include several series of *Occasional Papers* in various subject fields, and an annual *Miscellanea Musicologica*, published in association with the University of Adelaide.

### Local Public Libraries

In June 1977, twenty-five local authorities, representing over half the State's population, were operating a total of thirty-seven public libraries, under the provisions of the Libraries (Subsidies) Act, 1955-1977. This Act, which gives the initiative for the establishment of free public libraries to local government, provides for the payment of subsidies (\$1 for \$1 based on all aspects of local government library expenditure except the cost of land) conditional upon a report on the matter by the Libraries Board to the State Treasurer. In 1976-77, subsidies amounted to \$924 642. The provision of bookstocks and other materials to public libraries operating under this Act is centred in the State Library, through its Public Libraries Branch, which also provides a Request and Reference Service to member libraries as a free service, as well as professional assistance to librarians and local authorities. This service includes advice on siting, and on internal planning of library buildings.

In the year ending 30 June 1977 the annual new book provision amounted to 124 000 volumes in addition to 32 000 paperbacks and 17 000 sound recordings. About 6 000 volumes were sent to libraries in answer to requests, from a central pool of 180 000 volumes maintained in the Public Libraries Branch.

#### Local Public Libraries, South Australia

Year	Libraries at End of Year	Registered Readers	Books Lent	Stocks at End of Year
1972-73 .....	32	150 000	2 621 000	330 000
1973-74 .....	32	157 000	2 867 000	389 000
1974-75 .....	35	162 000	3 228 000	442 000
1975-76 .....	37	187 000	3 882 000	564 000
1976-77 .....	37	211 000	4 667 000	613 000

### Institute Libraries

Several country and suburban centres had formed institutes in the early 1850s. The first legislation on libraries was passed in the 1855-56 session of Parliament and resulted in the establishment of the South Australian Institute. In 1861, a new building was erected in the corner of North Terrace and Kintore Avenue for the Institute, which in 1884 was divided into two organisations, the Public Library and the Adelaide Circulating Library.

Institute libraries, which are situated in metropolitan and country areas throughout the State, are largely dependent on members subscriptions and in some cases on income from the institute hall, but they also receive a government subsidy and about two-thirds of them receive support in varying degrees from local councils.

The Institutes Association of South Australia Inc. acts as a co-ordinating authority and as a purchasing agency for affiliated Institutes, these, however, retain complete autonomy, being governed by a committee elected by members. The conduct of Institutes is regulated by the Libraries and Institutes Act, 1939-1977.

The borrowing facilities of Institutes are available to subscribers and the general public has access to, and the use of, reading facilities in the library. Many Institute libraries allow children to borrow books from the library without charge.

**Institute Libraries, South Australia  
At 31 December**

Particulars	1974	1975	1976	1977
Number of institutes .....	172	171	167	163
Subscribers .....	47 202	46 330	45 308	42 415
Number of volumes .....	738 024	737 054	731 354	718 283
Volumes circulated during year .....	1 654 259	1 654 818	1 384 509	1 308 001

**Other Libraries**

Particulars relating to the Barr Smith Library at the University of Adelaide (870 000 volumes, including 72 500 microformes, at the end of 1977), the Flinders University Library (380 000 volumes at the end of 1977) and the South Australian Institute of Technology Library (116 000 volumes at the end of 1977) are given on pages 191, 195 and 202 respectively. Other libraries include those of the Royal Society of South Australia (approximately 29 000 volumes), the South Australian Branch of the Royal Geographical Society of Australasia (approximately 16 000 volumes) and the Parliamentary Library (about 60 000 volumes).

**MUSEUMS**

**The South Australian Museum**

Founded in 1856 as part of the South Australian Institute, the South Australian Museum became a separate institution with its own board in 1940 under the provisions of the Museum Act, 1939. In 1972 it became a Division of the Department for the Environment, and in October 1977 the Museum was made a Division of the Education Department. A new South Australian Museum Act was proclaimed on 11 March 1976, in which the present-day functions of the Museum were defined.

Similar to other major museums in Australia and overseas, it makes and preserves collections, carries out research and acts as an education and information centre for primary, secondary and tertiary students, and for the public. Its main areas of interest are archaeology, history, ethnology, natural history and geology.

The Museum's first permanent building, the West Wing, was opened in 1884, the North Wing was completed in 1895 and the East Wing was added in 1915. Since then the Museum has expanded to occupy the historically and architecturally significant buildings of the Old Police Barracks, three floors of Goldsbrough House, an office/warehouse complex in Kent Town and a number of other annexes.

The South Australian Museum has a staff of sixty-seven with sixteen professional research workers responsible for the care of the collections and for carrying out research. Several of the collections of specimens and data are outstanding. The collection of Australian ethnological material is of world renown while those of New Guinea ethnological objects, minerals, insects and southern Australian animals are excellent.

The research of the scientific staff is primarily systematic, involving the naming, identification and classification of animals, minerals and artefacts, but considerable emphasis is placed also on their ecology, and interrelationships with the environment. With the current interest in, and need for knowledge concerning conservation and environmental deterioration, this work is of increasing importance. Results of the research work of staff members are published in the *Records of the South Australian Museum* and in scientific journals throughout the world. The Museum's Scientific Library houses more than 33 000 volumes.

Advice, based on their research results and on their specialised knowledge, is given by the scientific staff to many other research institutions and government departments.

The Museum has a general Information Service dealing with about 10 000 inquiries annually and approximately 40 000 school children pass through the Education Centre each year. With the appointment of more teachers and the development of a travelling education service, this service was extended to country areas in 1976.

Public entertainment and education involves the presentation of displays in galleries covering nearly 4 000 square metres. The Aboriginal display in the Stirling Gallery is currently being redesigned. Education booklets on a variety of subjects, mostly written by Museum staff and published by the Museum, are on sale at a nominal price. Postcards and note paper are also published and are sold throughout Australia.

A Museums Extension Service began operation in 1976. The purpose of this is to provide professional museological advice to rural museums to improve their ability to preserve, document and display folk cultural material and thereby encourage greater community interest in local history and provide an additional resource for local educational needs.

The scientific work of the Museum is supported by the general public, by the many field naturalists and other societies which meet at the Museum and by a number of distinguished scientists who are appointed as honorary associates. In particular, the Friends of the South Australian Museum have given considerable support since their foundation in 1964, including the purchase of many notable additions to the collections.

Plans are now being formulated for the construction of a new museum on the site presently occupied by the Bus and Tram Division of the State Transport Authority near Botanic Park at Hackney. With the Botanic Garden and Zoological Gardens in close proximity, the new Museum will form part of a fine natural science complex.

#### **Other Museums**

A number of historic residences serve as museums. In 1961 the 'Old Government House' at Belair was refurbished with relics of the colonial era and opened for public inspection. At 'Whalers Haven', Victor Harbor, a pioneer cottage has been restored and features many relics of early settlement with particular emphasis on the whaling industry. The home of the poet Adam Lindsay Gordon, 'Dingley Dell' at Port MacDonnell, is maintained as a historic house and Captain Charles Sturt's original home at Grange is open to the public. Items of historical interest are exhibited in old buildings in many of the early established country towns.

A railway museum has been established and maintained by a voluntary organisation, the Mile End Railway Museum. Locomotives and rollingstock are from the State Transport Authority—Rail Division, Australian National Railways, Silverton Tramway, BHP, BHAS and other private lines which have operated in South Australia. Included in the display are nineteen steam locomotives built between 1886 and 1954, two railcars, two diesels, one petrol locomotive and ten units of passenger and goods rollingstock dating from 1877, as well as a large selection of associated railway equipment. The Museum, at Railway Terrace, Mile End, is open to the public on the first and third Sundays of each month.

A pioneer art and motor museum is situated at Birdwood. Exhibits include vintage motor vehicles, pioneer domestic appliances and early agricultural machinery.

Various items of maritime association including pictures, models and fittings from early ships are displayed at the Nautical Museum at Port Adelaide.

A number of special museums are maintained at the University of Adelaide for the use of the staff and students and a Museum of Economic Botany is associated with the Botanic Garden.

### **The National Trust of South Australia**

The National Trust of South Australia was established by Act of Parliament in 1955. It encourages the preservation and restoration of buildings of architectural, historic or scientific interest, the protection of scenic beauty and the conservation of land, flora and fauna.

The Trust, which is administered by a council, has forty-nine branches spread throughout the State. Finance is provided by means of gifts, legacies, fund raising functions, subscriptions and a government grant.

Buildings of particular significance in South Australia are assessed on their architectural or historic merit and are categorised in accordance with the criterion adhered to by the Australian Council of National Trusts as either:

Classified, *i.e.* buildings having great historic significance or high architectural qualities, the preservation of which is essential to the heritage of the State; or

Recorded, *i.e.* buildings which contribute to the heritage of Australia and which should be recorded and their preservation encouraged.

Examples of the natural areas cared for are 'Wilabalangaloo' at Berri, 'Watiparinga' at Eden Hills, 'Roachdale' at Kersbrook and 'Engelbrook' at Bridgewater. The many beautiful or historic Trust properties include 'Collingrove' in the Barossa Valley, Beaumont House and the Marble Hill ruins and reserve. Marble Hill was officially opened on 15 February 1975 and magnificent views of the Adelaide Hills and Plains can be obtained from the many vantage points in the thirty-one hectares of park-like setting in which the building stands. Original plans of the building are on view, together with photographs of both the exterior and interior before the building was destroyed by fire on 2 January 1955. The original stables have been restored and converted for use as a cafe.

The Trust also owns the G. S. Sandison Reserve at Hallett Cove, an area of international scientific interest because of its glacial pavements.

In 1963 the paddle steamer *Marion* was purchased and refitted and now floats in the old graving dock at Mannum; while the Willunga Court House and Police Station, both built in the mid-nineteenth century, were restored in 1969. In the following year the Trust fully restored the Customs House at Robe and in 1971 played a prominent part in persuading the State Government to save from demolition the architecturally classic and beautiful ANZ Bank Building in King William Street which had been classified by the Trust. This building has been renamed Edmund Wright House and is now occupied by the South Australian Registrar of Births, Deaths and Marriages, and many marriage ceremonies are held there.

At December 1976, the National Trust of South Australia controlled forty-nine reserves totalling 1 184 hectares and some ninety-three restored buildings and other structures, forty-two of which are used as folk museums in various country centres.

The headquarters of the National Trust in South Australia is in the historic and beautiful residence of Ayers House, once the home of the seven times Premier of South Australia, Sir Henry Ayers.

### **Aboriginal and Historic Relics**

The protection of Aboriginal relics and of traces of the early settlement of the State is governed by the Aboriginal and Historic Relics Preservation Act, 1965. The administration of this Act is the responsibility of the Minister for the Environment.

Remnants of Aboriginal culture such as prehistoric camp-sites, ceremonial grounds, cave paintings, rock engravings and canoe trees are to be found in various parts of the State. Although many such relics have been destroyed in the period of European settlement, several remain which are of great interest to scholars and tourists. In addition

there are some areas of the State where such sites are of real significance to present-day Aboriginal communities. These relics are protected under the provisions of the Act.

Similarly there are many relics and sites associated with early European settlement which are protected by the Act. These include settlement sites; industrial sites, particularly those associated with the pastoral and mining industries; overland telegraph stations; military installations, marine sites, and historic shipwrecks.

A particular relic or series of relics may be protected by the Governor declaring the area in which it is found either a Prohibited Area or an Historic Reserve. Inspectors and Wardens are appointed to safeguard such areas and the Protector of Relics maintains a complete register of all prohibited areas and reserves, and also of unproclaimed known occurrences of Aboriginal and historic (including technological) relics.

A special article on Aboriginal relics together with a list of declared areas at 30 June 1969 was included on pages 201-8 of the *South Australian Year Book* 1969 and areas declared between 1 July 1969 and 31 October 1976 have been included in subsequent issues of the *South Australian Year Book*.

During the period 1 November 1976 to 31 October 1977, two Historic Reserves were declared, bringing the total of declared Historic Reserves to sixty-five while the number of Prohibited Areas remains at ten. The two areas declared were:

Loch Vennachar Historic Site of the wreck of the historic vessel *Loch Vennachar*  
Reserve lost near West Bay, Kangaroo Island, 1901.

*Historic Reserve*

Twelve Springs Historic Important Aboriginal archeological site.

Reserve

*Historic Reserve*

## ART GALLERIES

### The Art Gallery of South Australia

The National Gallery of South Australia was founded in 1881 as a part of the South Australian Institute which in 1884 became the Public Library, Museum and Art Gallery of South Australia. This institution was dissolved by Act of Parliament in 1940, and the Gallery became a government department under the Art Gallery Board. The name was changed to the Art Gallery of South Australia in 1968. The first portion of the present building, the Elder Wing, was completed in 1900, the Melrose Wing on the western side and the facade were added in 1936, and in 1962 a three-storey air-conditioned wing was built at the northern end.

The collections are broad in scope and include a representative selection of Australian and European paintings and sculpture. There are large collections of prints, drawings, silver, glass and ceramics (including an important section devoted to South-East Asia), as well as furniture, arms and armour, and coins and medals. The South Australian historical collection includes relics and pictorial material of the discovery, exploration and settlement of the colony.

In addition to the permanent collections, the Gallery has a full program of visiting international and interstate exhibitions.

The Gallery has received many bequests, the Elder, Morgan Thomas, David Murray, Ragless, Boxall, Mortlock and Koilhagen bequests together totalling over \$252 000. In addition the State Government makes an annual grant for the purchase of works of art.

The staff of professional and technical officers undertake the research and development, care and conservation of the collections and the preparation of exhibits for public education and enjoyment. Free guided tours of the collections are provided by education officers and volunteer gallery guides.

A regular program of film evenings, lectures and demonstrations is given and the Travelling Art Exhibition, a fully equipped van with illuminated portable screens, accompanied by a driver and a lecturer, tours country centres during school term. In 1977, forty-seven centres were visited and the exhibition was viewed by 25 183 adults and children. Another innovation is the introduction of 'Outlook', an art appreciation program taking original works of art into metropolitan schools and public places.

A society, The Friends of The Art Gallery of South Australia, was founded in 1969 for people interested in the fine arts and to create a body of people who would be informed about the activities of the Gallery. Membership stands at 1 832 and falls into five categories—Sustaining, Institutional, Family, Ordinary and Junior.

#### **Other Galleries**

South Australia's first regional gallery was opened at Naracoorte in 1968. South Australia's two leading art societies, the Royal SA Society of Arts (Australia's oldest art society which was founded in 1856) and the SA branch of the Contemporary Art Society of Australia Incorporated (founded in 1942) conduct exhibitions in their galleries. An exhibition area, known as 'The Gallery', has been provided by the Adelaide Festival Centre Trust. Its inaugural exhibition was staged to coincide with the official opening of the Playhouse on 26 October 1974. A continuous, changing exhibition is mounted on its own premises by the Adelaide Potters' Club, South Australia's longest established craft society.

The Jam Factory Workshops Incorporated, formerly the SA Craft Authority, was set up by the State Government in 1974 with administrative offices at St Peters in a large building known as the Jam Factory. The functions of the Workshops are generally to promote and encourage the development of craft industries in South Australia; to make grants or loans to craftsmen and associated industries; to provide workshops and workshop advisory services and to market the products of craft industries and to improve and extend the retail and wholesale markets. Groups already operating there include the Crafts Association of SA and the Experimental Art Foundation Incorporated (SA).

The first permanent gallery to mount regular fortnightly shows opened at John Martin's Emporium in the mid-1940s under the directorship of Stefan Heysen. The Bonython Art Gallery, which opened at North Adelaide in 1961, was the first establishment in Adelaide to be devoted solely to the business of fine art dealing. The Peel Street Art Gallery held its first exhibition in 1957; in 1962 this Gallery was removed to other premises nearby and its name was changed to the Osborne Art Gallery. The Llewellyn Galleries at Dulwich, which opened in 1967 but has now ceased operations was the first building in Adelaide to be architecturally designed and erected to function as a commercial exhibition gallery. Since then, many commercial galleries have been established throughout the State.

Outdoor exhibitions have been popular among amateur clubs, beginning with the Citizen's Art Group (now the Adelaide Art Society) in 1954. The Advertiser's annual open-air exhibition is supported by professionals and amateurs alike. The 1977 exhibition contained 970 exhibits selected from 856 entrants resulting in sales totalling \$35 889.

## **MUSIC AND DRAMA**

### **MUSIC**

Regular concerts are given by the Adelaide Symphony Orchestra, Adelaide String Quartet and University of Adelaide Wind Quintet, as well as by visiting artists and ensembles promoted by the Australian Broadcasting Commission and Musica Viva. Choral music is presented by three large choirs—Adelaide Choral Society, Adelaide Philharmonic and Harmony Choir, and by such chamber choruses as the Corinthian



Singers. The State Government's subsidised regional opera company, The State Opera of South Australia, stages regular productions throughout the year in Adelaide and South Australian country centres. School performances aimed at promoting interest in opera are a regular feature of the Company's activities. Outside Adelaide, concerts are given in a number of country and outer-suburban areas, including an annual series of autumn concerts at Crafers in the Adelaide Hills.

The Festival Centre provides formal and informal venues for a wide variety of performances, from rock concerts to grand opera, and the Rundle Mall is also being used for open-air community arts activities.

#### **Australian Broadcasting Commission**

In the metropolitan area the Adelaide Symphony Orchestra each year gives twenty-three orchestral subscription concerts and six youth orchestral subscription concerts, usually featuring overseas conductors and/or soloists. The Australian Broadcasting Commission (ABC) also presents a recital series of six performances by overseas artists. In addition there are at least six free orchestral concerts, a series of three Prom concerts, four family concerts and a number of non-subscription concerts each year.

During 1977 the Orchestra gave twenty-six free concerts for schoolchildren in the metropolitan area. Broken Hill had its own ABC subscription series of four concerts; one by the Adelaide Symphony Orchestra and three by international recital artists. In addition the Symphony Orchestra toured the country areas and during 1977 visited five other centres giving two free concerts for schoolchildren in each centre in addition to a public concert. The Orchestra also toured interstate, giving two concerts in the Sydney Opera House and one in the Canberra School of Music.

#### **Elder Conservatorium of Music**

The Elder Conservatorium of Music at the University of Adelaide provides a comprehensive course of training for students in courses leading to the degree of Bachelor of Music, and also caters for part-time students by providing instruction in the various branches of music as single studies.

The Elder Hall is the concert hall of the Conservatorium. It was built in 1900 and for many years was a general purpose hall. Since the 1950s it has been used mainly for musical purposes, including public performances. Free lunch hour concerts, open to the public, are given on Tuesdays and Thursdays during term time by staff and students of the Conservatorium.

During 1977 the Elder Hall was completely renovated internally at a cost of \$1m, this cost being met from money contributed to the University's Centenary Appeal Fund. The Hall is now a first-class concert hall seating 712 people, with a stage capable of accommodating an orchestra of 75 performers and a choir of 75 people. It is fully air-conditioned, and of excellent acoustical quality. A new organ, now under construction by Casavant Freres of Canada, is to be installed in 1979.

Particulars relating to the Elder Conservatorium at the University of Adelaide are given on page 191.

### **DRAMA**

The South Australian Theatre Company is the State theatre company of South Australia with its permanent home at the Playhouse in the Adelaide Festival Centre.

The Company presents two major seasons of plays each year, principally comprising the classics and new Australian work.

The Company also has Australia's largest Theatre-In-Education team, 'Magpie', which provides schools (in both metropolitan and country areas) with a team of actor/teachers

educating through entertaining students on a participatory level. Additionally, the Theatre-In-Education team presents plays designed to attract families and young people to the theatre at varying times throughout the year.

The main Company also presents rehearsed readings of new plays under the banner of its 'Roadshow' program which mounts productions that are easily transportable and on offer to community groups at no charge.

The Adelaide Festival Centre Trust administers the Festival Theatre, Playhouse, Space, Amphitheatre and Opera Theatre (formerly Her Majesty's Theatre) and is the State's largest entrepreneur of outside productions for these venues. The Festival Theatre attracts productions and performers to South Australia which otherwise might never be seen in South Australia.

The Association of Community Theatres was established in 1975 to provide a system of liaison and communication amongst its forty-five member groups. This organisation, which includes amateur and semi-professional groups, and colleges of advanced education, takes special interest in the promotion of South Australian playwrights.

### **The Adelaide Festival Centre**

The Adelaide Festival Centre is a \$20 million performing arts complex on a 2.5 hectare site located on the banks of the River Torrens near the centre of the city of Adelaide. The Centre comprises a multi-purpose concert hall and lyric theatre, two drama theatres and an open-air amphitheatre. Stage three of the Centre's building project, completed in 1977, comprises a two-level underground car park and 0.75 hectares of open plaza, featuring an overall sculptural design.

### *The Festival Theatre*

The \$7 million Adelaide Festival Theatre was the first completed auditorium of the Centre and was officially opened on 2 June 1973. Seating nearly 2 000 people on three levels and in a series of tiered boxes, the Theatre has been designed for a kaleidoscopic range of theatre activities, including orchestral concerts and recitals, large-scale opera, ballet and drama, films, musical comedy, variety and jazz concerts, conventions and conferences. The seats extend across the Theatre in continental style with access from large foyers along the sides of the auditorium.

Catering facilities in the Theatre include a restaurant seating 120 diners, a licensed bar-lounge and an outdoor cafe on the northern terrace overlooking Elder Park.

The Festival Centre Trustees have a policy of commissioning and purchasing works of art for the Centre which now has a collection valued at more than \$250 000.

### *The Drama Complex*

In October 1974 work was completed on the \$6.5 million drama complex alongside the Festival Theatre. The largest auditorium in this complex is The Playhouse, a 600-seat, two-level theatre which is designed for both proscenium and thrust-stage productions.

The Playhouse is the home of the South Australian Theatre Company and is served by a production workshop consisting of design studio, carpentry and paint shops, assembly areas, wardrobe, millinery and wigmaking sections and a photographic darkroom.

Alongside the Playhouse and beneath plaza level is The Space, a 320-seat experimental theatre. A completely flexible auditorium, The Space can be arranged in almost any variation of seating and acting areas, and incorporates electronic music facilities. It has been designed as an ideal venue for experimental performances and teaching workshops.

Where the Festival Theatre and Playhouse meet on the Elder Park side of the Festival Centre site, there is an open-air Amphitheatre which is formed by the natural slope of the site where the plaza steps down to Elder Park.

#### *The Centre's Activities*

Australian national touring companies, The Australian Opera and The Australian Ballet, give annual seasons in the Festival Theatre and the resident Adelaide Symphony Orchestra uses the Theatre for its annual orchestral and youth concert series as well as for special celebrity concerts by international artists and orchestras. The Adelaide Festival Centre Trust and principal Australian commercial entrepreneurs use the Theatre for a wide variety of other presentations.

#### **The Adelaide Festival of Arts**

In 1958, a small group of Adelaide citizens developed plans for the first Adelaide Festival of Arts, which was held in 1960. Further festivals have been held in March in years of even number from 1962.

The Adelaide Festival has achieved many artistic triumphs in its eighteen-year history and has been instrumental in bringing to Australia for the first time many notable overseas companies, performers and artists. It has seen the first performances of scores of major Australian productions and an increasing number of world premieres commissioned specially by or for the Festival. Notable world premieres have included Peter Maxwell Davies' music theatre piece for *The Fires of London*, *Miss Donnithorne's Maggot* (1974), South Australian composer Richard Meale's oboe concerto *Evocations* performed by Heinz Holliger and Collegium Musicum of Zurich (1974), Sir Robert Helpman's ballets, *The Display* (1964) and *Perisynthyon* (1974), Alex Buzo's *Coralie Landowne Says No* performed by Sydney's Nimrod Street Theatre (1974), and the Patrick White play *Night on Bald Mountain* (1966). First Australian performances have included the Janacek opera *The Excursions of Mr Broucek* (1974), Sir William Walton's *Troilus and Cressida* (1964), Benjamin Britten's *War Requiem* (1964) and his church parable *The Burning Fiery Furnace* (1970).

World famous writers who have been guests at Festival Writers Week include Yevgeny Yevtushenko, Edna O'Brien, Anthony Burgess, Allen Ginsberg, John Updike, Alan Moorhead, Angus Wilson and Nadine Gordimer.

The completion of the \$20 million Adelaide Festival Centre has caused a shift in the emphasis of the Festival of Arts. The regular appearances of leading overseas performers and companies at the Centre throughout the year has enabled the Festival to engage in activities considered more appropriate to arts festivals. These include the commissioning of new works, the encouragement of local companies and artists and the provision of a variety of programs to attract greater public interest and appreciation.

#### *'Come Out'*

In May 1975, the Festival administration, with \$30 000 in special grants from the State and Commonwealth Governments and a commercial sponsor (The Savings Bank of South Australia), staged 'Come Out', the first in a series of planned festivals of performing, creative and visual arts for young people. These will be staged in years of odd numbers, between the main Festivals of Arts.

The first 'Come Out' festival was held in the final week of the first school term and the first week of the May holidays (2 to 17 May 1975) and offered a total of fifty-one different arts performances, workshops, exhibitions and allied activities which were attended by a total of 56 000 children and students and 16 000 adults.

The second 'Come Out' festival was staged on 8-22 May 1977.

### BROADCASTING

Radio and television broadcasting falls within the jurisdiction of the Commonwealth Government and, pursuant to the *Broadcasting and Television Act 1942*, is one of the responsibilities of the Minister for Post and Telecommunications. Commonwealth bodies which are directly involved include the Postal and Telecommunications Department, the Australian Broadcasting Commission, the Australian Broadcasting Tribunal, the Australian Telecommunications Commission, and the Special Broadcasting Service.

Basically the Australian broadcasting and television system is comprised of the following types of stations:

- (1) national broadcasting and television stations funded by the Commonwealth Government;
- (2) commercial broadcasting and television stations operated by companies under licence;
- (3) public broadcasting and television stations operated by corporations under licence on a non-profit basis; and
- (4) stations operated under the aegis of the Special Broadcasting Service.

The responsibility for broadcasting planning, including all matters relating to the technical operation of stations, and for the investigation of interference to the transmission and reception of programs, rests with the Minister for Post and Telecommunications.

The Australian Broadcasting Tribunal came into being on 1 January 1977, and is responsible for certain of the functions previously performed by the Australian Broadcasting Control Board (abolished 31 December 1976), including the licensing and supervision of the operation (other than technical aspects) of all stations except national stations and special broadcasting stations. The Tribunal is required to conduct public inquiries into the granting of licences following the invitation of applications by the Minister; the renewal of licences; the setting of standards of broadcasting practices; alleged breaches of licence conditions; and such other matters as the Minister may direct. Subject to the conduct of such inquiries, the Tribunal is empowered to grant, renew, suspend or revoke licences and to determine program and advertising standards applicable to licensed stations.

### RADIO

There are at present twenty medium frequency radio stations operating in South Australia. In the metropolitan area there are two national, four commercial and one public station, while there are eight national and five commercial stations in country areas. The country or regional stations relay programs from their respective parent metropolitan stations in addition to providing programs to cater for local interests.

Commercial broadcasting stations are operated by companies under licences granted by the Australian Broadcasting Tribunal with technical operating conditions determined by the Minister for Post and Telecommunications. The stations obtain income from the broadcasting of advertisements.

The fee for a licence for a commercial broadcasting station is \$200 plus an amount based on the gross earnings from advertising during the preceding financial year, assessed on a sliding scale varying from 1 per cent for amounts up to \$0.5m to 4.5 per cent on amounts exceeding \$3.5m.

**Radio Stations**

The call signs and locations of stations are given in the following table: all call signs in South Australia are prefixed by the number '5'.

**Radio Stations: Medium Frequency, 31 December 1977**  
South Australia

National Stations		Commercial Stations		Public Stations	
Call Sign	Location	Call Sign	Location	Call Sign	Location
5AN	Adelaide	5AA	Adelaide	5UV	Adelaide
5CL	Adelaide	5AD	Adelaide		
5CK	Port Pirie	5DN	Adelaide		
5LC	Leigh Creek	5KA	Adelaide		
5LN	Port Lincoln	5AU	Port Augusta		
5MG	Mount Gambier	5MU	Murray Bridge		
5MV	Renmark	5PI	Crystal Brook		
5PA	Naracoorte	5RM	Renmark		
5SY	Streaky Bay	5SE	Mount Gambier		
5WM	Woomera				

**Radio Programs**

The distribution of types of program matter is set out in the following table.

**Composition of Radio Programs, 1976**  
All Stations, Adelaide<sup>(a)</sup>

Category	Commercial	National <sup>(b)</sup>	Public
	Per cent		
<b>Entertainment:</b>			
Light and contemporary music .....	57.3	20.6	25.1
Incidental matter .....	4.8	3.7	4.4
Variety .....	2.0	1.2	0.8
Drama .....	—	2.4	1.6
Classical music and the arts .....	0.1	43.5	32.9
<b>Information and services:</b>			
News .....	8.6	9.0	0.4
Sport .....	4.0	2.9	—
Information .....	2.1	7.2	18.8
Religious .....	0.4	1.0	—
Social and political .....	2.5	6.1	9.5
Family .....	1.2	0.3	—
Children's .....	—	0.9	—
Education .....	0.1	1.2	5.2
Foreign language .....	—	—	1.3
<b>Advertisements</b> .....	16.8	—	—
<b>Total</b> .....	100.0	100.0	100.0

(a) Percentage of transmission time (6 a.m. to 10.30 p.m.) in each category.

(b) Details shown are for 1975 all national metropolitan stations. Details for 1976 are not yet available.

## TELEVISION

**Television Stations**

At 30 June 1977 there were six commercial television stations, six national stations and two commercial television translator stations in operation in South Australia. A television translator station is a station of low power designed to receive signals of another station and re-transmit them on a different frequency. A translator station does not originate programs.

The following table shows the stations in service and the dates on which they commenced operations.

**Television Stations, 30 June 1977**  
**South Australia**

Call Sign and Channel	Location	Date Service Commenced
NATIONAL STATIONS		
ABS—2	Adelaide	March 1960
ABNS—1	Port Pirie	April 1965
ABGS—1	Mount Gambier	December 1965
ABRS—3	Loxton	January 1971
ABCS—7	Ceduna	July 1973
ABWS—7	Woomera	November 1973
ABLC—5	Leigh Creek	April 1977
COMMERCIAL STATIONS		
NWS—9	Adelaide	September 1959
ADS—7	Adelaide	October 1959
SAS—10	Adelaide	July 1965
SES—8	Mount Gambier	March 1966
GTS—4	Port Pirie	March 1968
RTS—5A	Renmark-Loxton	November 1976

Commercial television stations are operated by companies under licences granted by the Australian Broadcasting Tribunal with technical operating conditions determined by the Minister for Post and Telecommunications. The stations obtain income from the televising of advertisements. The fee for a licence for a commercial television station is \$200 plus an amount based on the gross earnings from advertising receipts during the preceding financial year, assessed on a sliding scale varying from 1 per cent for amounts up to \$0.5m to 4.5 per cent on amounts exceeding \$3.5m.

**Colour Television**

From 19 October 1974 to 28 February 1975 a restricted number of hours per week of colour television were transmitted for test purposes and on 1 March 1975 colour television was introduced in South Australia and is now used for most programs.

**Television Programs**

On commercial channels there is a considerable emphasis on drama and light entertainment, whereas the Australian Broadcasting Commission devotes more time to programs of an informative and educational nature. Statistics of Adelaide television programs are shown in the following table.

Composition of Television Programs, All Adelaide Stations, 1976<sup>(a)</sup>

Category	Commercial National <sup>(b)</sup>	
	Per cent	
Television drama	35.1	19.3
Cinema movies	17.6	
Cartoons	5.4	1.5
Light entertainment	9.6	7.2
Sport	7.2	15.3
News	3.2	6.6
Children's	6.3	21.4
Family	3.0	1.0
Information and documentary	2.2	4.1
Current affairs	0.9	6.7
Politics	—	0.2
Religion	0.8	1.7
The arts	—	11.3
Education	0.7	3.7
Advertisements	8.0	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

(a) Percentage of transmission time (6 a.m. to 12 midnight) in each category.

(b) Details shown are for 1975; details for 1976 are not yet available.

## SPECIAL BROADCASTING SERVICE

The *Broadcasting and Television Amendment Act 1977*, which was passed by Federal Parliament on 9 November 1977, makes provision for the establishment of the Special Broadcasting Service (SBS). The role of the new authority will be to produce special broadcasting programs which would not be appropriate for the Australian Broadcasting Commission or other established broadcasters to undertake. Initially the SBS will be responsible for the ethnic broadcasting service through stations 2EA Sydney and 3EA Melbourne. It is envisaged that the SBS may, at a later stage, assume responsibility for other special broadcasting and television services in Australia. New services by the SBS, however, may only be undertaken after Parliamentary approval is given and the necessary regulations promulgated. The SBS will be empowered to fund its operations by the broadcasting of sponsored programs, by charging for the provision of services and facilities, and by the sale of programs and rights or interests in programs. These avenues of funding are in addition to moneys appropriated annually from the Parliament to the SBS. The SBS will not, however, derive revenue by means of normal commercial advertising.

## PUBLIC BROADCASTING

The Broadcasting and Television Act makes provision for the grant of licences for the operation of a broadcasting or a television station for special purposes. However, fifteen stations have been licensed on an experimental basis under the provisions of the Wireless Telegraphy Act, and, of these, two are operated by music broadcasting societies in Sydney and Melbourne, while the remainder are associated with various tertiary educational institutions throughout Australia. Future licences of this type will be granted under the new provisions of the Broadcasting and Television Act which came into force on 1 January 1978.

The ABC's television service in South Australia includes ABS Channel 2, and five country stations. Program material for the South Australian country national television stations is prepared at ABS Channel 2, Adelaide, and transmitted to the country centres by a series of broad-band radio-telephone relay systems.

## FILMS

**South Australian Film Corporation**

The South Australian Film Corporation is constituted under the South Australian Film Corporation Act, 1972-1975. The Corporation has the sole right to produce, or arrange for the production of, films for or on behalf of the State Government.

The Corporation also may undertake film production on its own behalf or for other organisations. It produces its own feature films for cinema and television release and also enters into co-production and investment arrangements with other producers. Its productions so far included *Sunday Too Far Away*, *Picnic at Hanging Rock*, and *Storm Boy*, which have received Australian and overseas acclaim from audiences and critics, and achieved outstanding financial success.

The Corporation also produces many short films for commercial sponsors, in addition to a wide range of films for State Government departments and instrumentalities. Prints of these films are sold extensively throughout Australia and abroad. Several have won Australian and international awards for excellence.

Other functions of the Corporation include the distribution and exhibition of films, the provision of library and other services relating to films and research into the effectiveness of films generally.

The Corporation encourages feature film and television production by providing studio and sound mixing facilities for rental. Liaison services for producers based outside South Australia are also available.

## THE PRESS

The State's first newspaper, *The South Australian Gazette & Colonial Register*, was first printed in London in 1836, six months before colonisation. The second issue of this paper, which served both as the official government publication and as an unofficial reporter of the news, was produced in Adelaide twelve months later. *The South Australian Gazette* (renamed *The South Australian Government Gazette* in 1840) emerged as a separate organ in 1839 and the newspaper continued as *The Register*. In 1850 *The Register* became the first continuous daily paper.

In the next twenty years several more daily newspapers were introduced, and for many years there were two morning and two evening papers daily. However, since the mid-1920s the present system of three major newspapers—one morning daily, one evening daily and one weekend publication—has emerged.

*The Advertiser*, published each morning except Sunday, was first issued in 1858 as *The South Australian Advertiser* and absorbed *The Register* in 1931. It is distributed throughout the State, with about 30 per cent of its circulation in country districts.

*The News*, published each evening from Monday to Friday, was introduced in 1923 replacing two evening newspapers, *The Express & Telegraph* and *The Journal*, which traced back their origins to the 1860s. Almost 80 per cent of sales of *The News* are in Adelaide and suburbs.

*The Sunday Mail*, printed on Saturday evenings and distributed mainly on Sunday mornings, first appeared under this name in 1955 following a merger between *The Mail*, first printed in 1912, and the *Sunday Advertiser*, which was introduced in 1953. About 25 per cent of sales of the *Sunday Mail* are in country districts.

*The Stock Journal*, previously the *Adelaide Stock and Station Journal*, was established in 1904. It is published weekly and provides up-to-date information on stock and wool markets and the technical aspects of farming and property management.



To support these major State-wide newspapers, a strong provincial press has been built up. There are at present thirty country newspapers operating in the State with a combined circulation of over 106 000. Most of these are published weekly, although two appear bi-weekly and three tri-weekly. Of those still existing, *The Border Watch* (Mount Gambier) in 1861 and *The Bunyip* (Gawler) in 1863 were first to appear. Earlier publications are, however, recorded; *The Port Lincoln Herald*, for example, was printed in the early 1840s. There are also district papers containing items of local interest circulated in a number of suburbs of Adelaide.

## PARKS AND GARDENS

### Adelaide Botanic Garden

The Adelaide Botanic Garden, occupying about 20 hectares east of the Royal Adelaide Hospital, was established in 1855 and was opened to the public in 1857. Botanic Park, an area of about 30 hectares north of the Garden was acquired in 1874 and has now been developed as an arboretum.

Since 1860 powers of management have been vested in a Board of Governors of eight members who serve for a period of four years but who may be re-elected for further terms.

The Garden contains an extensive collection of about 6 000 species of plants. Important features are the collections of native plants from dryland regions, cacti and succulents, the class ground, glass house displays and the Wisteria arbor. The Museum of Economic Botany, opened in 1879, houses a comprehensive carpological collection, displays of plant products and educational displays.

In 1954 the State Herbarium was re-established within the Botanic Garden and a new herbarium building was completed and occupied in 1965. At present it contains about 250 000 specimens.

State-wide advisory services are available on all matters relating to ornamental horticulture.

Experimental tree plantations have been established at Giles Corner, Kulpara, Lameroo, Stansbury and Meningie to test hardiness of ornamental woody plants under natural rainfall.

In the mid-1960s the Wittunga Garden at Blackwood was donated by the Ashby Family to the Botanic Garden. This comprises approximately 15 hectares and has Australian and South African plants. This garden was opened officially in mid-September 1975 and is open daily from 10 a.m. to 4 p.m.

Mount Lofty Botanic Garden of approximately 80 hectares was established in 1960 and was opened to the public on 5 November 1977. Visiting days are Saturdays, Sundays, public holidays and Wednesdays from 10 a.m. to 4 p.m.

### Zoological Gardens

The Royal Zoological Society of South Australia was founded in 1878, and in 1883 approximately 8 hectares of Botanic Park were granted to the Society for the establishment of the Zoological Gardens. At the same time arrangements were made for the various exotic and Australian animals and birds previously housed in the Botanic Garden to be transferred to the Zoological Gardens.

The Zoological Gardens contains an excellent collection of mammals, birds and reptiles. Particular emphasis is given to Australian fauna and especially to native Australian birds. During 1976-77, 123 species and varieties of mammals, including a large collection of marsupials, and more than 250 different species of Australian and foreign birds were exhibited.

The many mammals, reptiles and birds are attractively displayed in cages and enclosures; the enclosures for some animals are moated yards freely open to public view. Two walk-through avaries, a Children's Zoo, where the animals can be handled and fed, and a nocturnal house for the display of animals which are more active during the night than the day, are features of the Gardens.

The revenue necessary for maintaining and developing the Gardens is obtained through an annual State Government grant, from gate receipts and sundry sources.

During 1976-77 about 403 000 persons visited the Zoological Gardens.

#### **National Parks and Wildlife Service**

The National Parks and Wildlife Act, 1972-1974, repealed several Acts and amalgamated the previous functions of, and areas controlled by, the National Parks Commission, National Pleasure Resorts, the Fauna and Flora Board and the fauna section of the Fisheries and Fauna Conservation Department to form the National Parks and Wildlife Service. The Service is a division of the Department for the Environment and its purpose is to establish and manage reserves for public benefit and enjoyment, and to conserve wildlife.

The Act also provides for the protection of native fauna and some species of native flora. The reserves are classified into the following types:

1. National Parks (parks of national significance);
2. Conservation Parks (primarily for conservation);
3. Recreation Parks (to allow for recreation without undue danger to natural areas);
4. Game Reserves (to enable management of wildlife).

At 30 June 1977 the reserves comprised 189 areas throughout the State and consisted of eight National Parks, 158 Conservation Parks, fifteen Recreation Parks and eight Game Reserves. The total area was over 3.9 million hectares, or 3.9 per cent of the State. Areas under Service control ranged from 0.4 hectares (Lipson Island Conservation Park) to 2 132 600 hectares (an unnamed conservation park in the north-west of the State).

The National Parks and Wildlife Service issues permits to keep and sell protected animals and is responsible for the issue of hunting permits in South Australia.

A description of some of the parks, recreation reserves and places of historical or scenic interest was included on page 217 of the *South Australian Year Book 1972*. Flora and fauna are discussed in Part 1.4 Natural Environment.

#### **Municipal Parks and Gardens**

The City of Adelaide is surrounded by 688 hectares of parklands, considerable areas of which are devoted to gardens (136 hectares), golf courses (100 hectares) and other recreational areas. The form of development and flexibility of areas permits varied usage by the public including equestrian activities, swimming, boating, ball games, picnicking, fetes, Christmas parties, art displays and pop concerts. Planting during the year 1976-77 included 3 890 trees and 1 276 shrubs.

Most suburban and country local government authorities maintain parks and gardens within their areas.

## **RECREATION AND SPORT**

#### **Division of Recreation and Sport**

The Department of Tourism, Recreation and Sport was established by the South Australian Government in October 1975, and comprised the new Division of Recreation and Sport and the Division of Tourism (incorporating the South Australian Government Tourist Bureau). In January 1977, an Administrative Division was established.

On 28 June 1976 the functions of the National Fitness Council of SA were amalgamated with those of the Division of Recreation and Sport. The staff and property of the Council were transferred to the Department.

In the area of recreation and sport the Department is involved in:

- capital assistance program for community recreation facilities;
- equipment grants for recreational and sporting equipment;
- advisory services for planning of recreation facilities;
- sports coaching scheme, providing grants for coaching and training;
- financial assistance towards travel to National sporting events;
- grants for the conduct of major sporting events in South Australia;
- vacation recreation programs;
- administration of recreation camps at Mylor and Parnanga and a Conference Centre at 'Graham's Castle', Goolwa;
- club administration courses;
- recreation for special needs groups including the handicapped and the elderly;
- maintenance and administration of walking tracks;
- administering the Regulations under the Lottery and Gaming Act, 1936-1976, pertaining to the licensing of small lotteries in the State;
- administering the provisions of the Racing Act, 1976, and Regulations thereto.

The Division of Tourism is involved in:

- the promotion and marketing in South Australia and interstate, which includes media advertising; brochure production and distribution; displays, promotions and public relations; operation of public information facilities and booking offices, and regional promotion;
- development of tourist attractions, facilities and services, which includes assistance to the private sector; tourist facility projects; advisory service to Government, and contribution to government resource management policies;
- research and planning which includes collection, analyses and interpretation of data; local, regional and State research service and specific research reports.

### SPORTING FACILITIES

In terms of attendance the most popular spectator sport is Australian Rules football; during the 1977 season the average attendance at the 110 minor round matches was 8 001 while the average at the six final matches was 30 159.

In addition, there were twenty-one matches in the National Football League 'Wills' Cup Series; fifteen of the matches were held in South Australia. Total attendance was 68 598, an average of 4 573 a match.

From 1974 the South Australian National Football League Inc. has used its headquarters ground, Football Park at West Lakes, for major games with the Adelaide Oval as a support oval for matches when Football Park is unavailable or when other matches have been programmed there. There was a record attendance of 66 897 at the Grand Final on 25 September 1976.

Adelaide Oval, occupying approximately 6 hectares of the north parklands, has been used for major cricket and Australian Rules football matches. The record attendances have been 62 543 on 2 October 1965 for Australian Rules football and 50 962 for Test cricket on 14 January 1933. In addition there are first-class suburban ovals at which major sports are played.

The Olympic Sports Field which features a synthetic 'tartan' track is the headquarters of the South Australian Amateur Athletic Association which is affiliated with the Amateur Athletic Union of Australia. Each Saturday from October to March inter-club contests are held at this arena with an approximate annual attendance of 100 000 competitors and spectators. The Olympic Sports Field is also used by the South Australian Women's Amateur Athletic Association which conducts competitions on Saturday afternoons.

The Apollo Stadium at Richmond is a multi-purpose air-conditioned building with seating for 4 390 spectators at which a weekly basketball competition is conducted. It is situated on a 2-hectare site and is the headquarters of the South Australian Amateur Basketball Association Inc. The stadium is also used by visiting entertainers. Other basketball stadiums are at Forestville, Bowden, Marion, Hillcrest, Colonel Light Gardens and Morphett Vale. Many school gymnasiums have basketball facilities and this sport is played in the open at various centres.

A number of indoor multi-purpose centres exist at Blackwood, Campbelltown, Elizabeth, Noarlunga, Woodville and Salisbury and in country areas such as Whyalla, Loxton, Kadina, Naracoorte and Tanunda. Others are currently under development at Marion and Ingle Farm.

The parklands of the City of Adelaide are used extensively for sporting purposes and during 1976-77, 407 sports permits were issued catering for eighteen different sports.

Sports grounds are distributed throughout suburban Adelaide, at approximately two to three kilometre intervals, and throughout country areas. In addition sports areas are available at most government and non-government schools.

#### **Race Courses**

There are four registered metropolitan courses; Morphettville, Cheltenham, Victoria Park (occupying approximately 23 hectares of the east parklands) and Oakbank. In addition there were, at 30 June 1977, thirty-five registered racing clubs and twenty-eight registered country courses. Picnic race meetings are held at a number of outlying centres.

#### **Trotting Tracks**

Metropolitan trotting in South Australia is conducted at Globe Derby Park, Bolivar, a modern and well-appointed track. There are twelve other courses in use in the State and seven of these (Gawler, Kadina, Kapunda, Mount Gambier, Murray Bridge, Port Augusta and Port Pirie) have facilities for the conduct of night trotting.

#### **Dog Racing**

Greyhound racing (with betting) was introduced into South Australia in May 1971 with meetings at Whyalla and Strathalbyn. Other tracks have been established at Angle Park, Barmera, Gawler and Port Pirie since that date. Meetings are held three to four times a week. Average attendance at Angle Park, the city track, is approximately 3 000. At present about 5 000 people own or train greyhounds in South Australia. The estimated greyhound population is 8 000 dogs.

#### **Golf Courses**

At 30 June 1977 there were eight suburban public courses, four 18-hole courses including one at National Park, Belair, and four par-3 links. There were also fourteen private courses operating within suburban Adelaide. In addition there are courses at many country centres. Five new nine-hole golf courses have been built or are under construction, including Regency Park and Marino.

**Motor Racing**

Adelaide International Raceway at Virginia was opened on 2 January 1972. It occupies an area of 65 hectares and contains two racing circuits of 2 and 3 kilometres respectively, and a drag racing strip. There is provision for 20 000 spectators and approximately fifty meetings are held each year.

A rallycross track was commissioned at Tailern Bend Raceway on 17 April 1977. The track has been leased by the Tailern Bend Racing Club to the South Australian Motor Racing Club which conducts rallycross meetings on an average of once every six weeks. The 1.2 kilometre track, which is a combination of bitumen and loose dirt, was laid in 1976 by the District Council of Meningie.

**Tennis Courts**

The South Australian Lawn Tennis Club's courts (thirty-three grass and eight hard) at Memorial Drive, North Adelaide occupy approximately 4 hectares of the north parklands. The centre court was the venue for Davis Cup matches in 1952, 1956, 1963, 1968, 1975 and 1978. At 31 December 1976 the parklands also contained approximately 220 other tennis courts. Courts associated with schools, churches and private clubs exist throughout the State.

**Lawn Bowling Clubs**

At 30 June 1977 there were 240 bowling clubs registered with the Royal South Australian Bowling Association—sixty-seven in and near Adelaide and 173 in country areas, including four at Broken Hill, New South Wales. The size of clubs varied from thirty-five rinks at Bordertown to as few as three rinks, with the two largest suburban clubs being Holdfast Bay and Lockleys, each with thirty-two rinks. There are also 234 bowling clubs registered with the South Australian Women's Bowling Association, sixty-three in the metropolitan area (including seven clubs exclusively for women) and 171 in the country.

**Swimming Facilities**

At 31 December 1976 there were eighty-one public swimming pools in South Australia, of which fifty-seven were in country centres. Of these only eight country and two metropolitan pools had been in use before 1950, recent activity having been stimulated by a State Government subsidy on pool construction. Of the eighty-one pools, seventy-four had treated water, the remainder were in lakes, dams, rivers or the sea, or utilised sea water. While mainly used for recreational and instructional purposes, the facilities provide a base for fifty-four swimming clubs providing instruction and competition in swimming, diving and water polo. These clubs have a total membership of 6 500.

Swimming pools are provided at sixty-eight government schools, twenty-eight of these being in country areas. Swimming facilities are also available at a number of non-government schools. The Education Department encourages school committees to build swimming pools by granting subsidies for their construction.

The Adelaide Swimming Centre in the north parklands, opened on 20 December 1969, is a complex of four pools, including a 50-metre eight-lane pool, a diving/water polo pool, both of which comply fully with international competition requirements, a 20 metre by 20 metre learner's pool and a toddler's pool. The Centre is contained in a 2-hectare grassed area with spectator accommodation for 2 000 people forming an amphitheatre arrangement surrounding the competitive pools.

A new swimming complex was opened at Marion on 24 January 1976. The complex comprises 50-metre, learner's and wader's pools with associated facilities and was constructed at a cost of approximately \$900 000 by the Marion City Council, with financial assistance from the Commonwealth and State Governments, through the Department of Tourism, Recreation and Sport.

On 2 May 1976, a 25-metre indoor heated pool was opened at Whyalla, as part of the \$1.3 million Whyalla Recreation and Leisure Centre. This pool is the second public 25-metre indoor heated pool to be built in South Australia; the first being at Mount Gambier.

The nature of Adelaide's foreshore and that of many country beaches, combined with the prevailing climate, provides ideal conditions for open sea summer bathing.

## LOTTERIES AND BETTING

### LOTTERIES

The State Lotteries Act, 1966-1975 provides for the promotion and control of lotteries by the Government of the State. In November 1966 a Lotteries Commission, consisting of a chairman and two other members, was appointed to administer the Act which came into operation on 8 December 1966 and the first draw was made in May 1967.

In accordance with Section 16 of the Act all moneys received by the Commission are paid into a Lotteries Fund from which moneys are made available to meet the expenses of the Commission and to pay prizes. The balance of the Lotteries Fund, which represents the surplus of income over expenditure and prize money not claimed for over six months, is transferred to the Hospitals Fund.

Up to 31 December 1977, \$102 056 542 was received from the sale of tickets, including X Lotto, of which \$62 171 860 was distributed in prize money, and approximately \$31.4 million had been transferred to the Hospitals Fund.

Originally only one lottery, a 50 cent series, was conducted but in July 1967 a Jackpot series with tickets at \$1 each, was introduced. In addition special lotteries have been conducted with tickets sold at \$2, \$3, \$4, \$5, \$10 or \$20 each. The last of the 50 cent lotteries was drawn on 2 July 1974 and on 3 July 1974 a 60 cent lottery was introduced. However, its popularity gradually declined and the 60 cent lottery was discontinued on 6 August 1976.

In April 1973, a new type of lottery called 'X Lotto' (Cross Lotto) was introduced. This scheme originated in Germany after the 1939-45 War, and is very similar to Football Pools except the subscriber selects numbers instead of teams.

Initially the popularity of X Lotto was not great but its popularity increased towards the end of 1974. In October, 1975, the percentage of prize money was increased from 60 per cent to 61 per cent. For the year ending 31 December 1977, \$10 770 687 was invested.

The Commission operates an account service by accepting deposits from persons wishing to invest in each lottery without the need to purchase tickets themselves. At 31 December 1977, 2 325 subscribers availed themselves of this service.

At 31 December 1977 there were 200 Lotteries Commission Agents appointed in South Australia. Of these, 139 were in the Adelaide and suburban areas; fifty-one in country areas and ten were subscriber (non-ticket selling) agents.

### BETTING

Legalised betting in South Australia is restricted to horse racing, trotting, dog racing and coursing. It is governed by the provisions of the Racing Act, 1976, which came into operation on 1 January 1977. Before 1 January 1977 legalised betting was governed by the provisions of the Lottery and Gaming Act, 1936-1978.

The Act makes provision for betting with the totalisator and with bookmakers at horse race, trotting and dog race meetings. The totalisator cannot be used at coursing meetings but bookmakers may operate at these meetings.

Details of on-course betting and betting in registered premises are given in the table below for the years 1974-75 to 1976-77.

**Betting: Amounts Invested with Bookmakers and On-Course Totalisators and Distribution of Commissions, Taxes and Fractions, South Australia**

Particulars	1974-75	1975-76	1976-77
<b>Amount invested:</b>			
Totalisator;			\$'000
Horse racing .....	9 156	11 105	12 793
Trotting .....	2 387	3 354	3 513
Dogs .....	2 186	2 570	3 128
<b>Total</b> .....	<b>13 729</b>	<b>17 029</b>	<b>19 434</b>
Bookmakers;			
On-course .....	120 771	149 140	170 406
Registered premises .....	3 613	3 566	3 985
<b>Total</b> .....	<b>124 384</b>	<b>152 706</b>	<b>174 391</b>
<b>Total amount invested</b> .....	<b>138 113</b>	<b>169 735</b>	<b>193 824</b>
<b>Distribution of commissions, taxes and fractions derived from betting transactions:</b>			
State Government;			\$'000
Totalisator tax and licences .....	692	866	963
Commission on bets .....	1 340	1 678	1 925
Stamp duty on betting tickets .....	141	147	146
Unclaimed bets .....	95	128	151
Totalisator unclaimed dividends .....	79	76	(b) 80
<b>Total paid to Consolidated Revenue</b> ....	<b>2 347</b>	<b>2 895</b>	<b>3 265</b>
Clubs;			
Commission on bets .....	1 250	1 640	1 874
Commission on totalisator takings .....	1 250	1 570	1 883
Totalisator fractions .....	(a) 75	166	178
<b>Total payable to clubs</b> .....	<b>2 575</b>	<b>3 377</b>	<b>3 936</b>
Charitable institutions;			
Totalisator fractions payable .....	(a) 57	—	—
Racecourses Development Board;			
Commission on totalisator takings .....	20	28	39
Hospitals Fund;			
Totalisator unclaimed dividends .....	—	—	(b) 17
<b>Total distribution</b> .....	<b>5 000</b>	<b>6 300</b>	<b>7 257</b>

(a) From 23 December 1974 totalisator fractions became payable to clubs instead of charitable institutions.

(b) Payable into Hospitals Fund from 1 January 1977.

Before December 1933 legalised betting was restricted to totalisator betting at registered race meetings. From 1933 to 1967 it was limited to 'on-course' totalisators and to betting with bookmakers who were licensed to bet on courses where meetings were held, and also (from January 1934 to February 1942) with bookmakers who were licensed to bet 'off-course' in specially registered premises.

As a war-time measure racing and betting in South Australia were banned from March 1942 until October 1943. Off-course betting facilities were not re-established until 1946, when they were restricted to country areas. Port Pirie is the only town where bookmakers now operate in registered premises.

In October 1966 provision was made for the setting up of the Totalizator Agency system of 'off-course' betting, and agencies have since been established in the metropolitan area and at numerous country towns. A Board consisting of a Chairman and seven other members representative of racing and trotting interests was appointed to administer the new system and the Totalizator Agency Board (TAB) Headquarters was established in Adelaide during December 1966. The Board was enlarged during 1970-71 to include a representative of the greyhound racing interests. The Board was changed in 1976 to comprise an independent Government appointed Chairman and Deputy Chairman plus a representative from the controlling body of each of the three codes of galloping, trotting and greyhounds. The TAB first operated on 29 March 1967 on a country race meeting while it operated for the first time on a metropolitan meeting on 1 April 1967.

Thirteen agencies were open on the first day of TAB operations. At 30 June 1977, 168 agencies were operating of which fifty-eight were sub-agencies operated in conjunction with other businesses. Further premises in the city, suburbs and country towns are being established progressively to provide a complete coverage of the whole State. In addition, a system of telephone betting is available to persons who have established accounts with the TAB. At 30 June 1977 the Board employed eighty-four permanent officers and 1 115 part-time staff.

For the year ended 30 June 1977 off-course investments totalled \$97 474 795 of which approximately 82 per cent was payable as dividends. The following amounts became payable to the South Australian Government (to be paid into the Hospitals Fund at the State Treasury) from the operations of the Board during that year:

	\$
Stamp duty .....	4 873 741
Fractions .....	799 393
Unclaimed dividends .....	410 238
Commission on NSW (Broken Hill) investments .....	3 900
	<hr/>
	\$6 087 272

In addition, for the year ended 30 June 1977, an amount of \$2 575 182 became available for distribution to racing, trotting and greyhound clubs under a scheme of distribution prepared by the Board and approved by the Chief Secretary. Since commencing operations in 1967 the Board has distributed a total of \$14 638 029 to participating clubs while in the same period, the South Australian Government has received \$30 982 050.

#### **Racecourses Development Board**

The Racecourses Development Board, established under the Lottery and Gaming Act, 1936-1978, and its existence was continued under the Racing Act, 1976, administers the Horse Racing Grounds Development Fund, the Trotting Grounds Development Fund and the Dog Racing Grounds Development Fund. These funds are financed by a proportion of investments on totalisators conducted by racing clubs or the Totalizator Agency Board and are to be applied by way of grants or loans to racing clubs for providing, erecting, improving or repairing public facilities. The Board is empowered also to borrow funds for these purposes.



## 6.5 HEALTH

### HISTORICAL

The first Health Act in South Australia was passed in 1873. This Act, which was modelled on earlier English legislation, established a Central Board of Health, and a number of town councils were constituted as local boards. The present Health Act dates from 1935. Administration continued under the authority of the Central Board of Health until 1949 when the Department of Public Health was formed to co-ordinate the work of the board and other health activities. The first hospital in South Australia was built in 1837. It was a small thatched hut situated on North Terrace and measured 6 metres by 4 metres. The foundation stone of the first Adelaide Hospital was laid in 1840. This building, which was demolished in 1938, contained two 12-bed wards and four smaller rooms. The first buildings of the present Royal Adelaide Hospital were erected in 1856-57. Hospitals in the country were established at Mount Gambier in 1869, Wallaroo and Port Lincoln in 1870, Port Augusta in 1875, and Port Pirie in 1890. The Port Adelaide Casualty Hospital was erected in 1882.

The State's first mental hospital, now demolished, was situated in Botanic Park. The Parkside Psychiatric Hospital (now Glenside Hospital) commenced operation in 1870 under the control of the Colonial Surgeon. The Enfield Receiving House and the Northfield Mental Hospital (now Hillcrest Hospital) were established in 1922 and 1929 respectively.

### ADMINISTRATION

The administration of health in South Australia is principally under the control of three main authorities: the South Australian Health Commission and Hospitals Department, and the Commonwealth Department of Health. Broadly the Health Commission concentrates on general health matters including the prevention of disease, the Hospitals Department on hospitalisation, and the Department of Health on health on a national basis including quarantine.

The Health Commission embraces the activities of the Central Board of Health, the Occupational Health Branch, the School Health Branch (including the Deafness Guidance Clinic), the Dental Health Branch, the Epidemiology Branch, the Food and Drugs Advisory Committee, the Radiological Advisory Committee, the Geriatrician, the Clean Air Committee, and also the public health aspects of the control of tuberculosis, including the Chest Clinic and the State X-ray health surveys. The Commission is responsible also for health education, including the drug education program sponsored by the Commonwealth Government, and for Aboriginal health in South Australia.

The Central Board of Health administers the Health, Food and Drugs, Narcotic and Psychotropic, Noxious Trades and Bakehouses Registration Acts. The Board also has responsibilities under the Local Government Act and the Cremation Act.

The Health Act and the Food and Drugs Act constitute every municipal or district council a local board of health or local authority for its area, except that in the metropolitan area, the Metropolitan County Board (representing twenty metropolitan corporations) is the local authority under the Food and Drugs Act. The Central Board of Health acts as a supervisory body over all the 131 local boards under the Health Act, the Food and Drugs Act and the Bakehouses Registration Act. It has concurrent jurisdiction with local boards. Outside the boundaries of local boards the Central Board is the administering authority.

The Hospitals Department administers government hospitals (general and mental), together with community health services, and deficit finances the operations of non-government recognised hospitals in South Australia.

Other State authorities concerned with the aspects of public health include the Engineering and Water Supply Department which is responsible for water supply and sewerage services, and the South Australian Meat Corporation which is responsible for the functioning of the metropolitan abattoirs and for the inspection of premises used for merchandising, storing or processing of meat.

The Commonwealth Government through the Departments of Health and Social Security is responsible for the administration of national health services in co-operation with State Health authorities and voluntary organisations. Under the *Quarantine Act 1908* the Department of Health is responsible for the various aspects of human, animal and plant quarantine.

The South Australian Branch of the Department of Veterans' Affairs administers the medical services provided for ex-service personnel whose disabilities are accepted as being attributable to war service.

### GENERAL HOSPITAL SERVICES

The control of hospitals in South Australia is vested in several authorities including the Hospitals Department, the Department of Veterans' Affairs, religious and charitable organisations, local community committees and private owners.

### RECOGNISED HOSPITALS

Recognised hospitals (formerly public hospitals) are those which have been approved under the Hospital Agreement between the State Government and the Commonwealth. This Agreement was subsequently renegotiated, with some amendments, effective from 1 October 1976. They are deficit financed by the State Government; the Commonwealth has agreed to meet up to 50 per cent of net operating costs in accordance with an agreed budget.

The Hospitals Department administers four recognised teaching hospitals in the metropolitan area, Royal Adelaide Hospital, The Queen Elizabeth Hospital, Modbury Hospital, and Flinders Medical Centre which opened early in 1976. The Department fully administers also the recognised hospitals at Port Pirie, Mount Gambier, Port Lincoln, Port Augusta, Wallaroo and Whyalla.

In addition there are sixty-five recognised hospitals in country areas and six (including Adelaide Children's Hospital and Queen Victoria Hospital) in the metropolitan area, conducted by local boards of management, which are deficit financed by the State Government and come under the general supervision of the Hospitals Department.

### Recognised Hospitals, South Australia

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
Hospitals .....	69	70	71	73	81
Staff (at end of year):					
Medical;					
Salaried .....	479	516	568	664	686
Sessional (a) .....	597	639	607	415	389
Nursing .....	6 733	7 041	7 600	7 780	8 316
Other .....	5 704	6 315	6 505	7 298	7 530
<b>Total .....</b>	<b>13 513</b>	<b>14 511</b>	<b>15 280</b>	<b>16 157</b>	<b>16 921</b>
<b>Patients:</b>					
Admitted and re-admitted .....	158 261	164 797	168 832	179 733	190 806
Average daily number resident .....	4 081	4 106	4 221	4 207	4 291

## Recognised Hospitals, South Australia (continued)

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
	\$'000				
Operating receipts:					
State Government aid .....	37 951	53 893	82 194	70 730	87 294
Commonwealth Government (b) ..	4 629	5 330	6 208	70 730	87 294
Fees .....	21 593	25 357	35 724	15 588	27 376
Other .....	460	675	804	1 230	4 096
<b>Total .....</b>	<b>64 633</b>	<b>85 255</b>	<b>124 930</b>	<b>158 278</b>	<b>206 060</b>
Operating payments:					
Salaries and wages .....	43 352	58 701	90 263	112 039	148 208
Other .....	19 899	24 825	33 467	46 239	57 852
<b>Total .....</b>	<b>63 251</b>	<b>83 526</b>	<b>123 730</b>	<b>158 278</b>	<b>206 060</b>
Capital payments:					
Buildings, equipment etc.:					
Government .....	9 570	13 864	19 741	25 696	30 639
Other .....	3 491	3 940	5 439	5 433	12 337
<b>Total .....</b>	<b>13 061</b>	<b>17 804</b>	<b>25 180</b>	<b>31 129</b>	<b>42 976</b>

(a) Includes visiting specialists paid on a sessional basis and honorary consultants, but not those paid on a modified fee for service basis.

(b) Before 1 July 1975, mainly hospital, pharmaceutical and tuberculosis benefits. After that date, 50 per cent of net operating costs.

## Recognised Hospitals: South Australia, 1976-77

Particulars	Royal Adelaide Hospital	Queen Elizabeth Hospital	Adelaide Children's Hospital	Other Recognised Hospitals	Total
Staff (at end of year):					
Medical:					
Salaried .....	269	166	86	165	686
Sessional (a) .....	163	80	46	100	389
Nursing .....	2 155	1 184	658	4 319	8 316
Others .....	2 219	1 315	724	3 272	7 530
In-patients:					
Admitted and re-admitted .....	34 109	28 052	17 028	111 617	190 806
Average daily number resident	875	524	238	2 654	4 291

(a) Includes visiting specialists paid on a sessional basis and honorary consultants, but not those paid on a modified fee for service basis.

## Royal Adelaide Hospital

The Royal Adelaide Hospital is a general teaching hospital controlled by a board of three members, with the Director-General of Medical Services as Chairman. The Hospital, which incorporates a department of dentistry, is a school of medical and dental clinical teaching, in conjunction with the University of Adelaide.

In addition to the main hospital there are wards at Northfield, a section of which is used to accommodate patients with infectious conditions, and a section of the Morris Hospital, Northfield is occupied by the Spinal Injuries Unit.

At 30 June 1977 there were 1 173 beds at the Hospital, excluding 111 at Northfield classified as nursing home beds. Construction of two new ward blocks at Northfield commenced during 1976.

#### **Queen Elizabeth Hospital**

The Queen Elizabeth Hospital at Woodville is a general, casualty and maternity hospital controlled by a board of management of three members. It is a teaching hospital affiliated with the University of Adelaide for the clinical teaching of undergraduate medical students. Opened in 1954 as a temporary 55-bed maternity hospital, it has been developed progressively to a major teaching hospital which, at 30 June 1977, had 731 beds available, including ten rehabilitation beds at the Mareeba Rehabilitation Centre, Woodville, which also incorporates a day treatment centre and an extensive domiciliary care service.

#### **Modbury Hospital**

The Modbury Hospital is a general teaching hospital comprising medical, surgical, maternity and children's wards, and casualty and out-patient services. It is controlled by a board of management of seven members.

The hospital complex was designed to provide facilities for 224 beds initially but is planned to extend to 450 beds by 1981. The hospital was officially opened on 16 February 1973, with 134 staffed beds. Since that time additional beds have become available progressively and at 30 June 1977, 214 beds were in use.

#### **Queen Victoria Hospital**

The Queen Victoria Hospital, founded by public subscription, was opened in 1902. It primarily provides facilities for midwifery, neo-natal paediatrics and gynaecology. It is a university teaching hospital and is controlled by a board of management. Accommodation at 30 June 1977 was 174 beds.

#### **Adelaide Children's Hospital**

The Adelaide Children's Hospital was founded by public subscription in 1876 and the first buildings were completed in 1879. In 1955, Estcourt House at Grange was added and is an integral part of the hospital although located some thirteen kilometres from the main hospital site. A continuing development program was commenced during 1975 to provide additional facilities and modern wards.

The Hospital is a general paediatric teaching hospital for children fourteen years and under and is a training school for nurses; the Department of Paediatrics of the University of Adelaide is situated at the hospital. It is controlled by a board of management and is a recognised hospital. Accommodation at 30 June was 356 beds.

#### **Flinders Medical Centre**

Opened in 1976, the Flinders Medical Centre represents a new concept of a general teaching hospital integrated with a university (Flinders University) for the clinical teaching of undergraduate medical students and for research.

Of an initial 320 beds, 308 were in use at 30 June 1977; the continuing commissioning of new facilities will increase the total available beds to 550. The Centre is controlled by a board of management of nine members.

### **COMMUNITY HEALTH AND DOMICILIARY CARE**

Commencing in late 1971, the Domiciliary Care Program, which is funded jointly by the State and Commonwealth Governments, provides health orientated support services at home so that the recipient is able to continue to live in a domiciliary situation, where

frequently, the only previous alternative was institutional care. This concept was greatly expanded in 1973-74 by the addition of the Community Health Program, which provided for a wider range of complimentary community health services, not necessarily of a domiciliary nature.

With the introduction of the Hospital Program from 1 July 1975, there has been a rationalisation of community health services, so that existing hospital facilities may be used, where appropriate, in lieu of the provision of separate facilities or projects.

The whole concept of community health care is one of continuing development as a viable alternative, in appropriate circumstances, to institutional health care.

#### REPATRIATION HOSPITALS

The Department of Veterans' Affairs maintains the Repatriation General Hospital at Daw Park. Originally known as Repatriation General Hospital, Springbank, it was built as a military hospital during the 1939-45 War, and came under the control of the Department in 1947. Medical, surgical and psychiatric in-patient and out-patient treatment is provided for eligible ex-service personnel, eligible dependants, serving members of the forces, and under certain conditions, for non-eligible ex-service personnel and civilians.

In 1974 the Daw Park Private Hospital adjacent to the Repatriation General Hospital, Daw Park was acquired and developed as a Rehabilitation Centre and Day Hospital. Within the Hospital's grounds is the Repatriation Artificial Limb and Appliance Centre which manufactures and supplies artificial limbs and other aids free of charge to all citizens who require them, regardless of whether they have a Repatriation entitlement or not. The average daily number of patients in the Repatriation General Hospital, Daw Park during 1976-77 was 235. At June 1977 there were 756 staff and 314 beds.

#### PRIVATE HOSPITALS AND NURSING HOMES

Details of all private institutions approved for payment of Commonwealth Government hospital or nursing home benefits are given in the following table.

##### Private Hospitals and Nursing Homes, South Australia

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
Number of hospitals .....	53	50	51	48	47
Number of nursing homes .....	127	129	127	124	124
Number of beds at end of year:					
Hospitals .....	2 137	1 929	2 026	2 068	2 041
Nursing homes .....	3 382	4 027	3 809	3 915	4 117

There are several large private hospitals in the metropolitan area including Calvary Hospital, the Memorial Hospital and St Andrew's Presbyterian Hospital, all of which are run by denominational bodies. Another large institution is the Home for Incurables at Fullarton which provides accommodation and nursing attention for persons suffering from chronic disease.

#### MENTAL HEALTH SERVICES

The Director of Mental Health Services is responsible for the management of public psychiatric services operating under the Mental Health Act, 1977. A division of the Hospitals Department, this Service controls four major institutions—Glenside Hospital, Enfield Hospital, Hillcrest Hospital and the Strathmont Centre—and in addition three hostels for accommodating discharged patients, two child guidance clinics, two community mental health centres and the St Corantyn Psychiatric Day Hospital.

In addition to the Enfield Hospital, there are separate 'short-term' receiving units at Glenside and Hillcrest Hospitals where treatment is directed towards early discharge. In general the duration of stay in these units is a few months terminating in either transfer as a 'long-term' patient or in discharge. A summary of the number of persons receiving Mental Health Services treatment in the years 1970-71 to 1974-75 follows.

#### Government Psychiatric Institutions, South Australia

Particulars	1970-71	1971-72	1972-73	1973-74	1974-75
<b>In-patients:</b>					
Admitted and re-admitted . . . . .	3 527	3 602	3 225	3 309	3 410
Discharged . . . . .	3 433	3 486	3 023	3 230	3 204
Deaths during year . . . . .	170	150	153	159	158
Remaining at end of year;					
Certified, males . . . . .	471	403	383	308	252
females . . . . .	396	336	346	327	201
Voluntary, males . . . . .	726	739	765	801	847
females . . . . .	600	681	714	687	774
<b>Total . . . . .</b>	<b>2 193</b>	<b>2 159</b>	<b>2 208</b>	<b>2 123</b>	<b>2 074</b>
<b>Out and day-patients:</b>					
Treated during year;					
Males . . . . .	2 149	2 109	2 245	2 534	2 590
Females . . . . .	2 356	2 281	2 174	2 697	2 623
<b>Persons . . . . .</b>	<b>4 505</b>	<b>4 390</b>	<b>4 419</b>	<b>5 231</b>	<b>5 213</b>

The number of in-patients remaining at the end of the year indicates a shift in emphasis from 'certified' to 'voluntary' over the period; certified patients comprised nearly 44 per cent in June 1970 compared with only 22 per cent in June 1975.

#### Out-patients and Day-patients Treated in Government Psychiatric Institutions Diagnosis and Number of Attendances, South Australia, 1974-75

Diagnosis	Number of Patients who Attended					Total Patients Treated
	1-4 Times	5-9 Times	10-15 Times	16-22 Times	23 or more Times	
	<b>MALES</b>					
Senile and pre-senile dementia . . . . .	15	4	—	1	2	22
Alcoholic psychosis . . . . .	3	1	1	—	4	9
Other organic psychoses . . . . .	9	2	3	1	3	18
Schizophrenia and paranoid states . . . . .	197	104	48	21	40	410
Depressive psychosis . . . . .	56	21	6	5	14	102
Other functional psychoses . . . . .	46	20	5	4	5	80
Depressive neurosis . . . . .	153	56	16	5	18	248
Other neuroses and psychosomatic disorders . . . . .	194	79	20	17	19	329
Alcoholism . . . . .	70	6	3	2	10	91
Drug addiction . . . . .	16	3	1	1	6	27
Other personality disorders . . . . .	250	55	22	19	29	375
Transient situational disturbances and behaviour disorders of childhood . . . . .	255	121	61	15	12	464
Non-psychotic mental disorders associated with physical condition . . . . .	37	14	1	1	6	59
Mental retardation . . . . .	229	6	3	1	3	242
Non-psychiatric diagnosis . . . . .	95	14	—	3	2	114
<b>Total . . . . .</b>	<b>1 625</b>	<b>506</b>	<b>190</b>	<b>96</b>	<b>173</b>	<b>2 590</b>

**Out-patients and Day-patients Treated in Government Psychiatric Institutions  
Diagnosis and Number of Attendances, South Australia, 1974-75 (continued)**

Diagnosis	Number of Patients who Attended					Total Patients Treated
	1-4 Times	5-9 Times	10-15 Times	16-22 Times	23 or more Times	
<b>FEMALES</b>						
Senile and pre-senile dementia	27	3	1	1	13	45
Alcoholic psychosis	4	1	2	—	—	7
Other organic psychoses	18	8	1	—	3	30
Schizophrenia and paranoid states	189	104	41	18	40	392
Depressive psychoses	84	54	15	8	22	183
Other functional psychoses	69	34	17	4	12	136
Depressive neurosis	328	92	44	18	70	552
Other neuroses and psychosomatic disorders	221	88	29	16	31	385
Alcoholism	19	1	2	2	3	27
Drug addiction	16	2	—	—	3	21
Other personality disorders	157	57	22	13	24	273
Transient situational disturbances and behaviour disorders of childhood	130	54	33	10	14	241
Non-psychotic mental disorders associated with physical condition	13	2	—	2	5	22
Mental retardation	190	5	1	1	1	198
Non-psychiatric diagnosis	90	16	1	2	2	111
<b>Total</b>	<b>1 555</b>	<b>521</b>	<b>209</b>	<b>95</b>	<b>243</b>	<b>2 623</b>

The next table shows that for both males and females admitted or re-admitted as in-patients during 1974-75 the most common diagnosis was 'schizophrenia and paranoid states'. Females out-numbered males by more than two to one in the diagnosis categories 'depressive psychosis' and 'depressive neurosis'.

**In-patients Admitted and Re-admitted to Government Psychiatric Institutions  
South Australia**

Diagnosis	1972-73		1973-74		1974-75	
	Males	Females	Males	Females	Males	Females
Senile and pre-senile dementia	46	80	56	96	60	96
Alcoholic psychosis	48	15	63	9	55	10
Other organic psychoses	45	48	32	34	23	22
Schizophrenia and paranoid states	410	380	479	345	455	389
Depressive psychosis	83	168	72	190	54	118
Other functional psychoses	80	108	92	144	139	210
Depressive neurosis	123	253	124	262	100	182
Other neuroses and psychosomatic disorders	37	54	50	50	58	111
Alcoholism	396	59	335	62	371	90
Drug addiction	16	21	31	27	43	32
Other personality disorders	199	185	178	183	185	142
Transient situational disturbances and behaviour disorders of childhood	25	33	27	20	33	34
Non-psychotic mental disorders associated with physical condition	24	13	29	16	28	8
Mental retardation	129	121	175	101	184	146
Non-psychiatric diagnosis	18	8	15	12	18	14
<b>Total</b>	<b>1 679</b>	<b>1 546</b>	<b>1 758</b>	<b>1 551</b>	<b>1 806</b>	<b>1 604</b>

In-patients discharged during 1974-75 are shown in the following table in relation to the period hospitalised and the condition treated.

**In-patients Discharged from Government Psychiatric Institutions  
Diagnosis and Period Resident, South Australia, 1974-75**

Diagnosis	Period Resident					Total Discharges
	Under 2 weeks	2 weeks and under 1 month	1 month and under 2 months	2 months and under 6 months	6 months and over	
<b>MALES</b>						
Senile and pre-senile dementia	5	4	5	2	11	27
Alcoholic psychosis	13	8	12	9	12	54
Other organic psychoses	3	4	3	3	12	25
Schizophrenia and paranoid states	71	71	87	123	87	439
Depressive psychosis	13	10	9	12	15	59
Other functional psychoses	19	17	24	43	13	116
Depressive neurosis	36	23	22	18	10	109
Other neuroses and psychosomatic disorders	22	14	3	6	4	49
Alcoholism	99	86	60	100	13	358
Drug addiction	14	13	5	14	—	46
Other personality disorders	58	48	26	29	15	176
Transient situational disturbances and behaviour disorders of childhood	8	3	5	9	2	27
Non-psychotic mental disorders associated with physical condition	3	7	6	7	6	29
Mental retardation	61	61	15	7	42	186
Non-psychiatric diagnosis	10	3	1	3	—	17
<b>Total</b>	<b>435</b>	<b>372</b>	<b>283</b>	<b>385</b>	<b>242</b>	<b>1 717</b>
<b>FEMALES</b>						
Senile and pre-senile dementia	6	3	12	17	30	68
Alcoholic psychosis	3	1	1	3	5	13
Other organic psychoses	4	3	5	6	8	26
Schizophrenic and paranoid states	49	55	67	109	125	405
Depressive psychosis	17	15	25	44	25	126
Other functional psychoses	39	42	40	52	16	189
Depressive neurosis	46	27	36	47	25	181
Other neuroses and psychosomatic disorders	26	30	12	27	5	100
Alcoholism	23	22	11	33	4	93
Drug addiction	15	4	2	8	1	30
Other personality disorders	44	27	26	34	14	145
Transient situational disturbances and behaviour disorders of childhood	8	5	4	9	2	28
Non-psychotic mental disorders associated with physical condition	1	—	3	3	2	9
Mental retardation	25	61	14	7	49	156
Non-psychiatric diagnosis	3	3	3	3	—	12
<b>Total</b>	<b>309</b>	<b>298</b>	<b>261</b>	<b>402</b>	<b>311</b>	<b>1 581</b>

### ALCOHOL AND DRUG ADDICTS TREATMENT BOARD

The treatment of those addicted to alcohol and other drugs in South Australia is the responsibility of the Alcohol and Drug Addicts (Treatment) Board under the provisions of the Alcohol and Drug Addicts (Treatment) Act, 1961-1967.

The Board controls the following facilities for the treatment of alcoholism and other addictions:

- Administrative Headquarters and Information Centre—Currie Street, Adelaide;
- Elura Clinic, North Adelaide—Assessment clinic and out-patients centre;
- St Anthony's Hospital, Joslin—A specialised hospital;
- St Christopher's, Joslin—A walk-in centre for drug addicts;
- Osmond Terrace Regional Referral Clinic, Norwood—A detoxification and observation unit.

An alcoholism service is also provided by the Board to patients at the Flinders Medical Centre and to clinics at Whyalla and Port Pirie.



The efforts and operations of various church and voluntary organisations are co-ordinated by the Board with its own services. These organisations are assisted financially by the South Australian Government.

In addition to the facilities controlled by the Alcohol and Drug Addicts Treatment Board, the Hospitals Department provides beds in some psychiatric and general hospitals for the treatment of addicted patients. Education on the various aspects of drug dependence is organised by the Health Commission with other bodies participating as required. The costs of these services are met by the Departments concerned.

## MATERNAL AND CHILD WELFARE

### MOTHERS AND BABIES HEALTH ASSOCIATION

The Mothers and Babies Health Association, a voluntary body supported by government subsidy and public subscriptions, was established in 1909 and conducts maternal and infant welfare work throughout the State. At 320 centres, triple certificated sisters teach management skills to parents of babies and young children, and centres conduct group or individual sessions by appointment for the management of problems in the older child up to the age of five years. The Association also conducts a twenty-four hour telephone advisory service and a correspondence service for remote and isolated families. Physiotherapeutic and family management ante-natal classes are conducted, and many eight-session parentcraft courses are conducted centrally and regionally throughout each year. There is an extensive school-lecturing service on parentcraft, and advice on playgroups is provided by staff playgroup advisers.

The Association, through its Torrens House mothercraft hospital, provides the only training for mothercraft nurses and infant welfare sisters in South Australia. Torrens House has forty-two beds and admits mothers with new-born babies for assistance in management and also treats babies and children up to the age of five years for various behavioural disorders. A day hospital and a model child-care centre are further facilities for placement and training.

Babies awaiting adoption and a social work service for single mothers, multi-problem families, and families-at-risk for child maltreatment, are further services provided.

Pamphlets and books on a wide range of topics of interest to parents are provided through the Association.

### SCHOOL HEALTH AND DENTAL SERVICES

The medical inspection of school children was first introduced into schools in 1913 and since 1951, these inspections have been the responsibility of a branch of the Department of Public Health. In January 1978, the staff and functions of the Department of Public Health, including the School Health Branch, were transferred to the South Australian Health Commission.

The medical assessment program aims to detect health impediments which are likely to affect the progress of children at school and to provide advice on appropriate management. No treatment is carried out by the Branch. All government and non-government schools are visited, usually annually. Students in Year 1 in primary schools are medically assessed by a doctor and a sister. In addition, vision and hearing are tested by a school nurse in Years 4, 6 and 8. The activities of the Branch are being progressively extended in an endeavour to meet the total health needs of school children, including physiological and social needs. The role of the School Health Nurse has been extended into the community and the staff work in close collaboration with other health and welfare workers, teaching staff and parents.

School Health nursing staff have been appointed to Priority Project Schools, Child-Parent Resource Centres and Community Health Centres. These nurses are responsible to the School Health Branch, but are seconded to the respective establishments as staff members.

With the establishment of a pre-school system by the Education Department, the School Health Branch has established a service to pre-schools, under the direction of a medical officer experienced in developmental paediatrics.

During 1977, 76 217 children were examined by medical officers or screened by nurses in 330 metropolitan and country schools.

There were 4 108 children examined at the Deafness Guidance Clinic, including 2 163 examined for the first time in 1977; 1 057 of those examined in 1977 were referred to doctors or hospitals for treatment.

An assessment clinic, under the direction of a paediatrician, began in 1971 for children with learning and behavioural problems.

The total of ninety staff of the School Health Branch at the end of 1977 included twenty medical officers, fifty-five school nurses, three audiometrists and one social worker.

Dentists using mobile vans and dentists and therapists working in 69 static clinics and the School of Dental Therapy provided dental care to 80 989 children.

The field staff of the Branch at the end of 1977 included 20 dental officers and 143 dental therapists.

#### COMMUNICABLE DISEASES

Under the Health Act, 1935-1976, certain diseases have been designated as 'infectious' and others as 'notifiable'. It is required that cases of infectious and notifiable diseases be reported to the local board of health, which in turn advises the Central Board of Health, and that cases of tuberculosis, gonorrhoea and syphilis be notified directly to the Central Board. It should be noted that the figures in the following table refer to cases notified and this may not reflect the actual number of occurrences of the disease in the population.

Communicable Disease: Cases Notified, South Australia

Disease	1973	1974	1975	1976	1977
Encephalitis	1	8	1	—	8
Gonorrhoea	1 492	2 091	2 114	1 855	1 921
Hepatitis A	319	193	203	235	262
Hepatitis B	—	—	—	—	107
Malaria	15	17	24	22	16
Meningococcal infection	10	5	4	10	5
Paratyphoid	2	3	1	—	—
Rubella	311	40	73	23	17
Salmonella infection	239	159	243	234	230
Scarlet fever	20	15	16	24	—
Shigella	126	31	37	85	76
Syphilis	178	257	305	484	360
Trachoma	1	—	—	—	—
Tuberculosis	124	113	101	96	105
Typhoid fever	2	1	2	2	—
Other diseases	19	30	69	122	18

The Health Commission maintains a venereal diseases investigation clinic at 275 North Terrace, Adelaide.

### Anti-tuberculosis Campaign

The Health Commission chest clinic has complete facilities for investigation, diagnosis and treatment of individuals with tuberculosis. In addition suspected cases are investigated and contacts are advised of precautionary measures and are periodically re-examined. The chest clinic has a static X-ray unit available to individuals and to which any doctor can refer patients for routine chest X-rays. In addition there are mobile units which are used for chest X-ray surveys in metropolitan and country areas.

The tuberculosis campaign in South Australia has been successful in lowering the incidence of the disease to a level of 8.00 per 100 000 of mean population. Compulsory surveys were introduced in March 1952 and have been a valuable means of detecting active cases of tuberculosis. However, with the low incidence of the disease the yield from these surveys has been progressively reduced and accordingly the frequency of the surveys has altered and become more selective.

The very low incidence of tuberculosis in the younger age groups means that it is no longer necessary to examine this group and accordingly the lower age limit for attendance at compulsory mass surveys has been raised to thirty years.

Children in Year 9 at most government and non-government schools throughout South Australia are given a tuberculin test, and where appropriate the children are given BCG vaccination.

### Prevention of Poliomyelitis

In the 1950s South Australia was affected by an intense poliomyelitis epidemic which began in 1949 and continued for several years, reaching a peak in 1951 when 1 491 cases with 62 deaths were registered. From 1956, when mass immunisation against poliomyelitis with Salk vaccine was begun, the incidence of the disease declined. The last indigenous case of poliomyelitis in South Australia was recorded in 1963. Since then, one case, originating in the Northern Territory and treated in Adelaide was reported in 1970 and towards the end of 1974 a child with suspected poliomyelitis was investigated at the Adelaide Children's Hospital.

The oral (Sabin) poliomyelitis vaccine was first introduced in July 1967, and is now the only vaccine used against poliomyelitis in this State. It is distributed by the South Australian Health Commission to Local Boards of Health and private medical practitioners. The Health Commission also organises poliomyelitis immunisation in areas without local government and conducts a clinic at the State Immunization Centre, Norwood.

#### Poliomyelitis, South Australia

Period	Cases Notified	Deaths
1950-54 .....	3 747	117
1955-59 .....	331	11
1960-64 .....	82	5
1965-69 .....	—	—
1970-74 .....	2	—
1975-78 .....	—	—

### ABORTION

Until December 1969 the law relating to abortions was included in Sections 81 and 82 of the Criminal Law Consolidation Act, 1935-1966. These Sections prohibited abortions under any circumstances. However, it was possible for legally qualified medical

practitioners to perform abortions in a limited number of cases, at their discretion, under Common Law provisions. No separate statistics of such operations were recorded.

In December 1969 this Act was amended by the Criminal Law Consolidation Act Amendment Act, 1969 which was assented to on 8 January 1970. The amendment inserted a new section (Section 82a) which provided for certain exceptions to the prohibitions in Sections 81 and 82. These exceptions allow for termination of the pregnancy where:

- (1) it is necessary to save life, or prevent grave injury to the woman's physical or mental health; or
- (2) the continued pregnancy would involve greater risk to the mental or physical health of the woman, or there was a substantial risk that the child would suffer from such physical or mental abnormalities as to be seriously handicapped.

To qualify under these grounds, a woman must have resided in South Australia for a period of at least two months before the termination of her pregnancy

Under the amended Act (the Criminal Law Consolidation Act, 1935-1978), a legally qualified medical practitioner may perform an operation to terminate a pregnancy, provided that he and another legally qualified medical practitioner are both of the opinion that one of the above grounds is met. There is provision for one legally qualified medical practitioner to terminate the pregnancy without recourse to a second opinion where it is immediately necessary to save the life, or to prevent grave injury to the physical or mental health of the pregnant woman. All operations must be performed in hospitals prescribed under regulations to the Act.

The following tables give details of abortions notified in recent years. The incidence of abortions notified per 1 000 live births registered was 141.3 in 1974, 145.9 in 1975, and 169.9 in 1976.

#### Abortions Notified: Grounds on Which Granted, South Australia

Grounds	1975		1976	
	Number	Per Cent	Number	Per Cent
Assault .....	6	0.2	4	0.1
Potential damage to foetus .....	51	1.8	54	1.7
Specified medical disorders .....	96	3.3	47	1.5
Specified psychiatric disorders .....	2 763	94.7	3 114	96.7
<b>Total .....</b>	<b>2 916</b>	<b>100.0</b>	<b>3 219</b>	<b>100.0</b>

#### Abortions Notified: Marital Status, South Australia

Marital Status	1975		1976	
	Number	Per Cent	Number	Per Cent
Single .....	1 455	49.9	1 665	51.7
Married .....	1 106	37.9	1 204	37.4
Widowed .....	27	0.9	17	0.5
Divorced/separated .....	308	10.6	314	9.8
Not stated .....	20	0.7	19	0.6
<b>Total .....</b>	<b>2 916</b>	<b>100.0</b>	<b>3 219</b>	<b>100.0</b>

## Abortions Notified: Age Distribution, South Australia

Age Group	1972	1973	1974	1975	1976
			Number		
Under 16 .....	76	125	89	91	144
16-19 .....	670	743	717	709	880
20-24 .....	665	686	744	768	841
25-29 .....	459	483	490	526	605
30-34 .....	329	348	353	334	348
35-39 .....	269	255	260	291	221
40-44 .....	160	145	151	136	123
45 and over .....	24	17	18	23	13
Not stated .....	20	31	30	38	44
<b>Total .....</b>	<b>2 672</b>	<b>2 833</b>	<b>2 852</b>	<b>2 916</b>	<b>3 219</b>

## Abortions Notified: Type of Termination, South Australia

Type of Termination	1972	1973	1974	1975	1976
			Number		
Vacuum aspiration .....	1 072	1 744	2 214	2 432	2 478
Dilation and curettage .....	1 344	923	501	339	583
Hysterectomy .....	26	19	15	16	12
Hysterotomy—abdominal .....	174	90	40	43	32
Hysterotomy—vaginal .....	4	—	2	3	1
Other .....	49	56	78	77	112
Not stated .....	3	1	2	6	1
<b>Total .....</b>	<b>2 672</b>	<b>2 833</b>	<b>2 852</b>	<b>2 916</b>	<b>3 219</b>

## OTHER HEALTH SERVICES

## Blood Transfusion Service

The Red Cross Blood Transfusion Service collects and processes blood for the routine and emergency needs of all hospitals in South Australia. Blood donations are given at the Service's centre in Adelaide, at a mobile unit visiting metropolitan and country centres, and at regional centres. In 1977 over 95 000 individual donations were received.

The Service maintains blood banks at the Royal Adelaide Hospital, Queen Elizabeth Hospital and the Flinders Medical Centre, and a reference laboratory which, in addition to performing the necessary tests on donor blood, carries out investigations for hospitals and medical practitioners. There are subsidiary blood banks at the Repatriation General Hospital, Modbury Hospital and the Lyell McEwin Hospital, Elizabeth, and regional blood transfusion centres have been established at Mount Gambier, Whyalla, Berri, Port Lincoln, Port Augusta and Wallaroo.

The cost of maintaining the Blood Transfusion Service is met by the State Government (60 per cent), the Commonwealth Government (35 per cent) and the Red Cross Society (5 per cent).

## Home Nursing

The Royal District Nursing Society of South Australia Incorporated, through its forty-eight branches in metropolitan and country districts, provides nursing facilities to those in need of home nursing. The services of the fully trained nursing staff are provided free of

charge to those unable to afford a fee, and to others according to their means. During 1976-77 a total of 442 662 visits were made by 183 full-time nurses. The Society also maintains a hospital at Marree and a medical centre at Iron Knob.

The Society obtains its revenue from State and Commonwealth Government aid (81 per cent of total revenue in 1976-77); branch contributions, including payments from patients, local government and other sources (18 per cent); and legacies and donations (1 per cent).

#### **Aerial Medical Services**

The Royal Flying Doctor Service (RFDS) of Australia is a non-profit organisation and provides medical, dental, ophthalmic School of the Air and telegram services in remote areas of Australia. The Royal Flying Doctor Service of Australia (SA and NT Section) Inc. of the RFDS operates over an area of approximately 2 124 000 square kilometres in South Australia and the Northern Territory; it administers control stations at Port Augusta, and Alice Springs in the Northern Territory, two aircraft being based at Port Augusta and one at Alice Springs. For the year ended 30 June 1977 these aircraft flew a total of 312 824 kilometres in transporting 649 patients to hospital and treating 3 999 patients at outback clinics. A further 283 patients received dental treatment from Adelaide dentists on regular monthly visits. Doctors gave 1 754 radio consultations to outback residents and 47 039 telegrams were transmitted from 578 licensed, fixed and portable outstations.

No flying charges are made to patients and the Service relies on donations, bequests and similar sources for approximately 30 per cent of the finance required and 70 per cent from State and Commonwealth Government grants.

#### **Ambulance Services**

The St John Council for South Australia Inc. provides a full-time ambulance service in the metropolitan area manned by the St John Ambulance Brigade. The Council also has administrative oversight over ambulance operations in country areas and in most cases the vehicles are manned by the Brigade. In the metropolitan area during 1977 St John ambulances travelled 2 280 657 kilometres and carried 191 837 patients. Country ambulances travelled 2 075 188 kilometres and transported 38 975 patients. Three aerial ambulances, based at Whyalla and at Adelaide, flew 2 354 hours and carried 1 338 patients in 1977. These aircraft are fitted out on the same basis as road ambulances and all the equipment throughout the State is interchangeable. A mobile radio communication system operates throughout the State on standard frequencies.

Common training programs are based on a Manual of Casualty Care and Transport published by the St John organisation in Adelaide. The establishment of a branch of Medic Alert International, a United States organisation, has facilitated the identification of people suffering from diseases and allergies which are not readily apparent. This knowledge is of assistance to both ambulance and hospital staffs in handling and treating patients.

#### **Voluntary Agencies**

There are many other voluntary bodies operating in South Australia and doing health work of a special nature. Their activities cover such fields as care of the handicapped, hospital services, care of mother and baby, care of the aged and the provision of convalescent facilities.

#### **CREMATORIUMS AND CEMETERIES**

The first crematorium in South Australia, the Adelaide Crematorium, was erected by the Cremation Society of South Australia, presented to the State Government in 1903 and subsequently was closed in November 1959. Cremations are currently conducted at two

cemeteries in the State. The Centennial Park Crematorium was erected in 1956 and is operated by the Centennial Park Cemetery Trust. A second crematorium, constructed by the Enfield General Cemetery Trust, commenced operations in December 1969. There were 3 927 cremations in South Australia during 1977.

Cemeteries in South Australia are divided into three main groups: those under the control of the State Government or local government authorities, those under church control and those under the control of trusts. In each of the above groups the cemeteries are financed by the usual charges for burials and by the leasing of land for burial purposes. With church and trust cemeteries, the cost of maintenance is often derived from interest accruing from invested capital funds.

### MEDICAL PERSONNEL

The following table lists registrations with the Medical, Dental, Pharmaceutical, Physiotherapy, Chiropractors, and Nurses Boards of South Australia, and with the Board of Optical Registration.

**Professional Medical Personnel, South Australia**  
Number Registered at 31 December

Profession	1972	1973	1974	1975	1976
Medical practitioners (a) . . . . .	3 054	3 154	3 348	3 767	4 531
Dentists . . . . .	442	477	521	564	598
Pharmaceutical chemists . . . . .	903	1 017	969	904	973
Opticians . . . . .	94	96	95	95	101
General nurses (b) . . . . .	11 201	11 923	12 717	13 863	14 976
Enrolled nurses . . . . .	2 740	3 406	3 641	4 419	5 884
Midwives . . . . .	4 265	4 470	4 787	5 196	5 653
Psychiatric nurses . . . . .	830	865	955	1 067	1 197
Mental deficiency nurses . . . . .	464	483	519	578	619
Infant welfare nurses . . . . .	629	657	690	699	747
Mothercraft nurses . . . . .	175	198	220	257	292
Infectious diseases nurses . . . . .	34	33	34	36	37
Dental nurses . . . . .	142	156	169	200	224
Physiotherapists . . . . .	498	524	565	601	631
Chiropractors (c) . . . . .	152	150	144	149	140

(a) Includes personnel not practising in South Australia. Date of registration is 31 January in the following year.

(b) General nurses may also be registered and included as midwives, psychiatric nurses, mental deficiency nurses, etc.

(c) Date of registration is 1 July.

The figures for registered medical practitioners show the number of persons registered to practise medicine in South Australia and not the number actually practising, which is estimated at approximately two-thirds of those registered. Since the 1939-45 War there has been a considerable re-organisation of general practice in medicine with a movement away from single practices to partnership and group practice arrangements.

### MEDICAL RESEARCH

#### The Institute of Medical and Veterinary Science

Details of this organisation are given under the heading of Scientific Organisations on page 216.

### **The Anti-Cancer Foundation**

The forerunner of the Foundation, the Anti-Cancer Campaign Committee, was formed within the University of Adelaide in 1928. The Committee's early activities were largely devoted to establishing and developing the Radiotherapy Department of the Royal Adelaide Hospital. As demand for these facilities grew the hospital assumed responsibility for routine treatment and the Committee concentrated its activities on cancer research. In 1962 the Committee was re-organised and became the Anti-Cancer Foundation of the University of Adelaide.

Early research was of a clinical nature, but more recently the Foundation has subsidised cancer research projects within the Institute of Medical and Veterinary Science, the Flinders University of South Australia, the University of Adelaide, the Queen Elizabeth Hospital and the Royal Adelaide Hospital.

An education program is being conducted to encourage the public to seek early medical advice and prompt treatment. Social workers assist with problems associated with cancer patients being cared for at home by relatives. The Foundation has established 'James A. Martin House' a well-equipped hostel to accommodate country patients receiving treatment at the Royal Adelaide Hospital.

The income of the Foundation is derived from gifts and bequests, government grants and subsidies, and from direct public appeals. The Foundation has formed standing committees in the country districts of South Australia and the Northern Territory to assist in the expansion of its anti-cancer activities.

### **The National Heart Foundation**

The National Heart Foundation of Australia and its South Australian Division was established in 1959. Its aims are research into the causes of heart and arterial diseases, the rehabilitation of patients suffering from heart and arterial diseases, and the education of doctors and the general public in all aspects of cardio-vascular problems with particular emphasis on prevention and risk factors. The National Heart Campaign of 1961 raised \$5 124 000 for the work of the Foundation, of which \$662 000 was contributed in South Australia. An appeal for further funds which was made during 1969 raised \$268 000 in South Australia. Since then, the Heart Fund Continuing Support Program has been established with the aim of providing regular annual donations to support the three-part program. In 1977, the total amount raised by the Heart Fund Program was \$340 494.

The campaign funds are being spent on research (66 per cent), education (20 per cent) and rehabilitation (14 per cent). Research funds, distributed at the national level, support projects in various departments at the University of Adelaide, at Flinders University, and at the Institute of Medical and Veterinary Science, the Royal Adelaide Hospital and the Adelaide Children's Hospital. Research funds are also used in providing local and overseas fellowships and travel grants.

The National Heart Foundation Centre, Adelaide was established by the South Australian Division in 1963 for the rehabilitation of patients suffering from the effects of heart disease. The South Australian Division is also involved in professional education of medical practitioners and paramedical staff. An increasing emphasis is placed on community education in order to make the public aware of the symptoms of heart attack and what to do if one occurs, and to stress the risk factors which increase the chances of having a heart attack.

## **STATE GOVERNMENT EXPENDITURE ON PUBLIC HEALTH**

The following table shows the net expenditure by the State Government from Consolidated Revenue Account on various aspects of health which is defined as excluding



sewerage, drainage and water supply. The figures include both the cost of maintaining State Government activities and subsidies paid to other organisations active in this field. For further details see Part 11.3 State Government Finance.

**Receipts and Outlay on Health, South Australia<sup>(a)</sup>**  
**1976-77**

Purpose	Outlay (b)			Receipts (b)	
	Purchases of Goods and Services	Current Grants to Private Non-profit Organisations	Less Charges for Goods and Services Supplied	Total (Including Other)	Total (c)
	\$'000				
General administration, regulation and research .....	12 755	45	229	12 715	150
Hospital and clinical services:					
Mental health .....	29 854	1 488	3 444	28 252	—
Other hospital and clinical services .....	173 216	3 822	24 261	173 666	101 479
Other health services:					
Preventive services .....	1 173	107	—	1 302	104
Maternal and infant health .....	19	2 209	—	2 473	—
Domiciliary care .....	708	—	89	685	1 388
Health of school children .....	3 645	—	—	3 672	1 836
Community health facilities .....	4 298	—	102	4 196	3 625
Ambulance services .....	—	865	—	979	—
Other .....	1 961	2 540	—	6 249	511
<b>Total .....</b>	<b>227 629</b>	<b>11 076</b>	<b>28 125</b>	<b>234 189</b>	<b>109 093</b>

(a) Consolidated Revenue Account only: excludes operations of subsidised hospitals.

(b) Charges for goods and services supplied have been excluded from receipts and deducted in calculating outlay.

(c) Mainly grants from Commonwealth Government.

(d) Includes \$1 120 000 transferred to Institute of Medical and Veterinary Science.

## 6.6 SOCIAL WELFARE

The Commonwealth and State Governments and a large number of voluntary agencies provide social welfare services for the population. The Commonwealth Government is concerned largely with providing fixed monetary pensions and benefits and repatriation services. It also provides, either directly or through State and local government authorities and voluntary agencies, for a wide range of welfare services for people with special needs. State agencies operate in the field of child welfare and distribute emergency relief in circumstances where Commonwealth Government assistance is not available. The voluntary agencies, many of which receive government aid, provide a wide range of services in various fields of social welfare.

### COMMONWEALTH GOVERNMENT PENSIONS AND BENEFITS

#### EXPENDITURE

The following table sets out Commonwealth Government expenditure in South Australia on social welfare, which includes expenditure under the Social Services Act, other Acts, National Health Service and disability and service pensions. The figures shown do not include administration costs.

Commonwealth Government Expenditure on Social Welfare, South Australia<sup>(a)</sup>

Type of Benefit	1972-73	1973-74	1974-75	1975-76	1976-77
	\$'000				
<b>Social Services Act:</b>					
Age and invalid pensions .....	101 625	131 771	184 218	234 266	273 814
Widows pensions .....	14 364	18 403	23 873	30 143	32 339
Family allowances (b) .....	22 780	20 098	20 237	22 896	87 491
Maternity allowance .....	661	618	627	597	522
Unemployment benefits .....	5 107	6 143	20 475	36 002	48 097
Sickness benefits .....	2 226	3 633	4 855	6 971	8 574
Supporting mother's benefit .....	—	4 838	9 293	15 210	18 591
Other .....	1 467	1 952	3 196	5 270	6 465
<b>Total .....</b>	<b>148 230</b>	<b>187 456</b>	<b>266 772</b>	<b>351 355</b>	<b>475 893</b>
<b>Delivered Meals Subsidy Act .....</b>	<b>78</b>	<b>166</b>	<b>172</b>	<b>203</b>	<b>276</b>
<b>Aged or Disabled Persons Homes Act</b>					
(c) .....	3 608	4 221	6 733	4 838	4 170
Aged Persons Hostels Act (d) .....	106	865	753	591	1 274
States Grants (Home Care) Act .....	181	226	942	1 388	1 147
States Grants (Deserted Wives) Act .....	776	1 534	1 045	1 509	1 879
National Health Service (e) .....	57 851	66 005	82 399	223 151	177 894
Disability pensions (f) .....	18 450	21 010	26 641	27 971	31 042
Service pensions (f) .....	7 467	10 340	15 133	21 406	28 667
<b>Total payments .....</b>	<b>236 747</b>	<b>291 823</b>	<b>400 590</b>	<b>632 412</b>	<b>722 242</b>

(a) Where applicable the amounts shown include payments for supplementary assistance, allowances and additional pensions for children.

(b) From 15 June 1976 child endowment superseded by family allowance. Until 1976 payments were made to claimants' bank accounts every twelve weeks. Since then payments are four-weekly.

(c) Includes Personal Care Subsidy (\$1 474 000 in 1976-77).

(d) Commenced September 1972.

(e) Includes Northern Territory for some items (see page 269).

(f) Includes Northern Territory.

## COMMONWEALTH SOCIAL SECURITY

Brief details of Commonwealth Government pensions and benefits are given in this section; however, in discussing the eligibility of persons for the various payments, all the necessary qualifications and exceptions to the general rule have not been delineated.

**Age and Invalid Pensions**

Age pensions are payable to men aged sixty-five and over and women aged sixty and over, who have lived in Australia continuously for a period of ten years.

Invalid pensions are payable to persons aged sixteen years and over who are permanently incapacitated to an extent of at least 85 per cent, or are permanently blind. Where the incapacity or blindness occurred outside of Australia, other than during a temporary absence, ten years continuous residence is necessary.

If a person subject to the ten year qualification for either pension has completed five years but not ten years continuous residence, but has lived in Australia for periods which, in total exceed ten years, he may be eligible. Residence in New Zealand, the United

Kingdom or an Australian external Territory (except Norfolk Island) may be treated as residence in Australia. Absences from Australia may, in certain circumstances, be treated as residence.

**Age, Invalid and Wife Pensions, South Australia**  
**Number of Pensioners**

At 30 June	Age Pensioners			Invalid Pensioners			Wife Pensioners
	Males	Females	Total	Males	Females	Total	Total
1973.....	27 745	63 250	90 995	7 441	5 914	13 355	3 740
1974.....	31 510	69 792	101 302	8 425	6 390	14 815	4 529
1975.....	33 875	73 404	107 279	9 703	6 645	16 348	4 972
1976.....	36 027	76 890	112 917	10 667	6 645	17 312	5 646
1977.....	37 709	80 187	117 896	11 835	6 742	18 577	6 417

From November 1977, for both age and invalid pensions, the maximum rate for an unmarried pensioner, or for a married pensioner whose husband or wife was not receiving an age or invalid pension, a tuberculosis allowance or a service pension, was \$49.30 a week. Where married pensioner couples are living apart for an indefinite period because of the illness or infirmity of either of both, each receives a pension at the single rate. The maximum married rate for a couple both being pensioners was \$41.10 a week each. A wife's pension is payable, subject to an income test, at the married rate to an age or invalid pensioner's wife who does not qualify for an age, invalid or repatriation service pension in her own right.

An additional pension up to \$7.50 a week is payable for all children under sixteen years or who are full-time students. An unmarried age or invalid pensioner having the custody, care and control of a child under sixteen years or who is a full-time student is paid a guardian's allowance of \$4 a week in addition to the pension. The guardian's allowance is increased to \$6 a week if there is a child under six years, or if there is an invalid child under sixteen years requiring full-time care and attention.

Up to \$5 a week extra may be paid to a single pensioner or to a married couple (\$2.50 each) who pay rent or lodging. For single and married persons the maximum rate of supplementary assistance is reduced by the amount by which the pensioners' income exceeds \$1 a week.

Age, invalid and wife's pensions, unless the pensioner is seventy years of age or over, or permanently blind, are subject to an income test. Additional allowances are generally subject to an income test regardless of age. Under the income test, a full pension is paid if the annual income does not exceed \$1 040 (for a single pensioner) or \$1 794 (for a pensioner couple). If the income exceeds \$1 040 (or \$1 794), the annual rate of pension is reduced by half the excess.

Certain types of income are exempted. The main exemptions are: gifts or allowances from children, parents, brothers or sisters; benefits from friendly societies; family allowances or other payments for children; Commonwealth Government health benefits and amounts received from registered benefit organisations.

#### **Widows Pensions**

Widows pensions are paid to widows and other women who satisfy certain conditions; there is a test on income.

There are three classes of pensions:

- Class A, a widow with at least one dependent child who is a child of the widow or a child who entered her care before she became a widow;
- Class B, a widow of at least fifty years of age who has no child or, if she has a child, the child does not qualify her for a Class A pension and a widow of at least forty-five years of age whose Class A pension ceases because she no longer has a qualifying child;
- Class C, a widow under fifty years of age who has no child and is in necessitous circumstances within twenty-six weeks of her husband's death.

For Classes A and B the term 'widow' includes a deserted wife who has been deserted at least six months, a divorcee, a woman whose husband has been in prison at least six months and a woman whose husband is in a mental hospital.

For all classes the term 'widow' may also include a woman who was the common law wife of a man for at least three years immediately before his death. 'Child' includes a full-time student over the age of sixteen.

A residential qualification is not required if a couple were permanent residents when the husband died or if an event occurs—such as divorce—which qualifies a woman as a 'widow'. In other circumstances five years continuous residence immediately preceding a lodgement of claim or ten years residence at any time is required. Certain absences are not considered as breaking continuity of residence, and residence in New Zealand, the United Kingdom or an Australian external Territory (except Norfolk Island) counts as residence in Australia. The income test operates similarly to that for age pensions.

**Widows Pensions, South Australia  
Number of Pensioners At 30 June**

Class	1973	1974	1975	1976	1977
A .....	5 910	6 297	6 154	5 956	6 220
B .....	5 111	5 448	5 662	5 978	6 390
C .....	2	8	6	10	8
<b>Total .....</b>	<b>11 023</b>	<b>11 753</b>	<b>11 822</b>	<b>11 944</b>	<b>12 618</b>

From November 1977, the maximum rates of pension were: Class A widows, \$49.30 a week, plus a mother's allowance of \$4 a week (\$6 if there is an invalid child or a child under six years), plus \$7.50 a week for each child under sixteen years or a full-time dependent student; for Class B widows, \$49.30 a week; for Class C widows, \$49.30 a week.

An additional payment of up to \$5 a week may be paid to a widow pensioner who pays for rent or lodging, and whose income is under \$6 a week. In the case of a Class A widow the income limit may be increased by up to \$6 a week for each child.

#### **Supporting Mother's Benefit**

A supporting mother's benefit is payable to an unmarried mother, a mother who is a deserted *de facto* wife, a *de facto* wife of a prisoner or a separated wife, from a date six months after the event which gives rise to eligibility (e.g. the birth of a child or separation). The rates, income test and other conditions are the same as for a Class A widows pension.

**Portability**

Pensions may be received in any country, subject to the following conditions:

- (1) the pension must be granted before departure from Australia;
- (2) normal residential requirements must be satisfied;
- (3) payment can only be made if the pensioner has left Australia on or after 8 May 1973.

**Persons Living Overseas**

Pensions may be granted to persons living outside Australia subject to the following conditions:

- (1) the claimant had lived thirty years in Australia and was of age-pension age or within five years of that age at the time of departure from Australia. This residential qualification does not apply to a claimant who became permanently incapacitated for work (or permanently blind) or widowed in Australia;
- (2) the claimant left Australia before 8 May 1973;
- (3) the claimant is in special need of financial assistance.

In addition, the claimant is required to satisfy the ordinary conditions for grant of pension in Australia, except that of living in Australia.

**Family Allowances**

Persons resident in Australia who have the custody, care and control of one or more children under the age of sixteen are eligible for family allowance (formerly known as child endowment); approved institutions of which children are inmates are similarly eligible. Family allowance is also paid for full-time students between the ages of sixteen and twenty-five years. There is no income test on family allowances, but one year's residence in Australia is required if the mother and child were not born in Australia; this requirement is waived if the Department of Social Security is satisfied that they are likely to remain in Australia permanently.

At 31 December 1977 family allowance was paid at the rate of \$3.50 a week for the first eligible child; \$5 for the second; \$6 for the third; \$6 for the fourth; \$7 for the fifth and each subsequent child. Family allowance of \$5 a week is paid for each child in an institution.

**Family Allowances, South Australia**

At 30 June	Families		Institutions		Total Number of Children		
	Number of Families (a)	Number of Children		Approved Insti- tutions		Number of Children	
		Under 16	Students (b)			Under 16	Students (b)
1973.....	172 453	361 539	24 068	67	1 203	120	386 930
1974.....	174 976	361 853	23 361	67	1 745	116	387 075
1975.....	178 978	364 047	25 625	68	1 045	150	390 867
1976.....	179 187	358 746	28 100	70	1 072	102	388 020
1977.....	188 229	379 275		54	831		380 106

(a) Before 1977 excludes those families with student children aged 16 and over only.

(b) Until June 1976 student endowment was payable for student children aged 16 to 21 years. With the introduction of the family allowance scheme the age range for student children was extended to 25 years.

**Maternity Allowances**

Any woman, permanently resident in Australia, who gives birth to a child in Australia, is entitled to a maternity allowance. The amount payable depends on the number of

existing children under sixteen years of age, and special allowance is made for multiple births. Maternity allowances are not subject to an income test.

At 31 December 1977 a mother with no other children under sixteen years of age was entitled to an allowance of \$30; where there were one or two such children the rate was \$32, and where there were three or more such children \$35. An extra amount of \$10 is paid for each additional child in multiple births.

**Maternity Allowances, South Australia**  
(Claims granted during year)

Category	1972-73	1973-74	1974-75	1975-76	1976-77
<b>Single births:</b>					
No other children under 16 .....	8 576	8 105	8 433	7 909	7 333
One or two children under 16 .....	10 266	9 678	10 012	9 686	8 955
Three or more children under 16 ..	1 984	1 604	1 414	1 259	1 043
<b>Multiple births:</b>					
Twins .....	175	204	180	197	163
Triplets .....	1	4	2	2	1
Quadruplets .....	—	1	—	—	—
Total .....	21 002	19 596	20 041	19 053	17 495

#### **Handicapped Child's Allowance**

A handicapped child's allowance was introduced in December 1974. The allowance is payable at the rate of \$15 a week to the parent or guardian of a child under sixteen years of age who is severely or substantially handicapped physically or mentally and requires constant care and attention in the family home.

#### **Double Orphans Pension**

A pension of \$11 a week is payable to the guardian of a child under sixteen years or a full-time student between the ages of sixteen and twenty-five years who has both parents dead or one dead and the other missing. The benefit is also payable in respect of either an adopted child or a child whose sole surviving parent is a long-term inmate of a prison or mental hospital.

If an orphan child is being cared for by an approved charitable or religious institution the pension may be paid to the institution.

#### **Unemployment and Sickness Benefits**

Unemployment and sickness benefits are paid to persons who suffer temporary loss of regular earnings because of unemployment, sickness or accident. There is a means test on income but not on property. Persons eligible must be between sixteen and sixty-four years of age (fifty-nine for women) with either twelve months residence or the intention to reside permanently in Australia. A person receiving an alternative social security pension is ineligible for unemployment and sickness benefits.

To qualify for unemployment benefit a person must (a) be unemployed and be able to show that unemployment was not because of his being a direct participant in a strike, (b) be able and willing to undertake suitable work, and (c) have taken reasonable steps to secure work, including registration with the Commonwealth Employment Service.

The amount of income which a person may receive and still qualify for the maximum rate of benefit is \$6 a week for an adult or married person under twenty-one, and \$3 a week for a single person under twenty-one with at least one parent residing in Australia.

The benefit is reduced by any amount in excess of these figures. For unemployment and sickness benefit, the income of the claimant's husband or wife is taken into account. In the case of sickness benefit, income received by a claimant's wife is not included for income test purposes but may determine whether additional benefit is payable for her, and if so, the amount. Special conditions apply where the wife receives an age, invalid or service pension.

From November 1977 the maximum weekly amounts for sickness and unemployment benefits were \$49.30 for a single person aged eighteen and over and \$82.20 for a married couple plus \$7.50 for each child. The rate for single persons aged over sixteen years but under eighteen years is \$36 a week.

There is a waiting period of seven days during which unemployment or sickness benefit is not payable, but this waiting period is not required more than once in any period of thirteen weeks.

#### Unemployment and Sickness Benefits, South Australia

Year	Unemployment		Sickness		Special (a)	
	Number of Benefits Granted	Average Number on Benefit (b)	Number of Benefits Granted	Average Number on Benefit (b)	Number of Benefits Granted	Average Number on Benefit (b)
1972-73 ..	31 111	4 423	7 585	1 388	1 042	283
1973-74 ..	19 926	3 244	8 639	1 571	988	313
1974-75 ..	61 944	10 557	9 311	1 978	1 125	373
1975-76 ..	80 535	15 010	13 273	2 224	2 458	469
1976-77 ..	72 008	16 147	14 101	2 256	2 383	534

(a) Excludes special benefits to migrants in accommodation centres.

(b) Average number at the end of each week.

#### Supplementary Assistance Allowance

Supplementary assistance is payable, subject to an income test, to an age, invalid, wife or widow pensioner, or a woman receiving a supporting mother's benefit if he or she pays rent or lodging and has little or no income apart from the pension or benefit. A similar payment, known as supplementary allowance, of up to \$5 a week may be made to a sickness beneficiary who has received benefit for a continuous period of six weeks.

#### Special Benefits

A special benefit may be granted to a person not normally qualified for unemployment or sickness benefit or any other social service pension or allowance, or a service pension, if he is unable to earn a sufficient livelihood for himself and his dependants. The maximum rate of payment is the same as for unemployment or sickness benefit, whichever is appropriate.

#### Rehabilitation

The Commonwealth Rehabilitation Service assists people who are unable to work because of long-term disability or who have had to give up their employment because of sickness or injury. It aims at helping disabled people to reach their maximum physical, mental and social usefulness and to prepare them for suitable employment.

In recognising the need for rehabilitation assistance of a social/vocational nature to be made more freely available, amendments to Part III of the Social Services Act came into operation with effect from 10 November 1977.

The effect of the changes has been to widen the categories of persons who may be provided with Commonwealth Rehabilitation Service treatment and training free of charge. There has been no alteration to the traditional categories of persons which the service has been able to accept *i.e.* pensioners, beneficiaries, etc. However, it is now possible for the Service to accept, without charge, handicapped persons from within the broad working age group who are neither pensioners nor beneficiaries but who would, in spite of residual handicaps, have reasonable prospects, with rehabilitation assistance, of either returning to gainful or sheltered employment or increasing their capacity to lead an independent life at home.

The Commonwealth Rehabilitation Service provides direct services through its centres and regional units. The facilities are designed and staffed to meet the diverse needs of disabled people.

In centres, skilled case work teams, including occupational and speech therapists, physiotherapists, nursing sisters, social workers, psychologists and vocational counsellors are working under medical supervision and using modern methods and equipment to help the disabled in achieving maximum recovery.

#### Rehabilitation, South Australia

Year	Number Accepted for Rehabilitation	Number Placed in Employment	Expenditure (a)
			\$
1972-73 .....	301	201	542 492
1973-74 .....	258	203	709 355
1974-75 .....	319	171	982 168
1975-76 .....	323	133	1 296 422
1976-77 .....	266	147	1 418 289

(a) Excludes capital expenditure on sites and buildings, and administrative cost of the Rehabilitation Service.

#### Funeral Benefits

A funeral benefit of up to \$20 is payable to any person liable for the funeral costs of a deceased age or invalid pensioner. A higher benefit of up to \$40 is payable to an age, invalid, wife or widow pensioner, or a person in receipt of supporting parent's benefit, liable for the funeral cost of a deceased spouse, child or another such pensioner or beneficiary. For these benefits 'pensioner' means a person who satisfies the Commonwealth Government pensioner 'fringe' benefits income test. 'Deceased pensioner' also refers to a person who satisfied those conditions before his death.

During 1976-77, 4 822 claims for funeral benefits were granted in South Australia.

#### Homes for the Aged

The *Aged or Disabled Persons Homes Act 1954* provides that grants may be made to certain organisations towards the capital cost of erecting or purchasing approved homes for aged or disabled people. Religious, charitable, ex-servicemen's organisations and local government bodies as well as any other approved organisation are eligible. Grants are made on the basis of \$2 for each \$1 (excluding government assistance and borrowed money, except that borrowed by local government bodies) raised by an organisation. The maximum subsidy limits under the Act are \$11 130 for a single unit and \$12 910 for a double unit, plus a maximum of \$1 920 a unit for land.



At 30 June 1977, 648 grants had been approved in South Australia since the inception of the scheme in 1954. The amount granted, \$46 060 884, was associated with the accommodation of 10 831 persons. Since October 1969, a personal care subsidy has been provided in terms of this Act, to eligible organisations providing personal care services in hostel-type accommodation for persons of eighty years of age and over. In 1974, the subsidy was increased to \$15 per week, and the cover extended to persons who, though not yet eighty years of age, required personal care services.

In 1976-77 expenditure under this Act in South Australia totalled \$4 170 215; of this amount \$2 696 075 was for capital grants and \$1 474 140 for personal care subsidies.

The *Aged Persons Hostel Act 1972* is designed to encourage the provision of hostel accommodation for the aged. Subject to certain conditions, the Commonwealth meets the cost of providing additional hostel accommodation by eligible organisations up to a maximum of \$16 700 a person. The Commonwealth also pays an additional grant of up to \$2 400 a person for the purchase of land; a further \$250 a person is available for furnishings.

The *States Grants (Home Care) Act 1969*, which is administered by the Department of Social Security, provides for financial assistance to the States to assist them in developing senior citizens' centres and a range of home care services providing housekeeping or other domestic assistance for aged persons in their homes. Payments to South Australia up to 30 June 1977 amounted to \$1 463 387 for senior citizens' centres, \$104 463 towards the salaries of welfare officers employed in connection with senior citizens' centres and \$2 473 389 for home care services.

#### **Delivered Meals Service**

Under the *Delivered Meals Subsidy Act 1970*, financial assistance is provided to organisations to establish, maintain, expand and improve 'meals on wheels' services. These organisations must be non-profit charitable, benevolent or welfare bodies not controlled by the Commonwealth or State Governments. The basic rate of subsidy is 30 cents for each meal with which an approved vitamin C supplement is provided and 25 cents for all other eligible meals.

At 30 June 1977, approvals had been given to twenty-one metropolitan and fifty-three country meals services in South Australia which had served a total of 4 969 931 meals since the scheme's inception. The total amount of subsidy paid was \$1 023 932.

#### **Homeless Persons' Assistance**

The *Homeless Persons' Assistance Act 1974* provides for assistance to non-profit organisations and local government bodies which provide accommodation, food and social welfare services for homeless men and women.

The Act enables grants to be made to eligible organisations to meet the cost of purchasing, constructing, altering or renting buildings to be used as homeless persons assistance centres, as well as to meet the cost of purchasing and installing furniture and equipment for such centres. Grants also meet half the salary of a social welfare worker employed at a centre, and help to meet the cost of providing food and accommodation for homeless persons at an approved centre, or of meals provided at such centres for non-residents. The rate of the food and accommodation subsidy has been prescribed at 75 cents per day and the rate of meals subsidy at 25 cents per meal.

Up to 30 June 1977 grants totalling \$168 200 had been made to eligible organisations in South Australia.

#### **Handicapped Persons Assistance**

Under the *Handicapped Persons Assistance Act 1974*, financial assistance is provided by the Commonwealth Government to eligible organisations conducting sheltered

workshops, training centres, activity therapy centres and residential accommodation for handicapped persons. Subsidy is also available towards the cost of rehabilitation facilities (including holiday homes) which are ancillary to or provided together with an approved program of training, activity therapy, sheltered employment or residential accommodation. All capital and equipment subsidies are paid at a rate of \$4 for every \$1 raised from non-government sources. A subsidy covering 50 per cent of actual salaries may be paid toward the cost of salaries of most staff. A higher rate of 100 per cent may be paid during an initial period in the case of some new enterprises. Since October 1970, a training fee of \$500 has been paid to sheltered workshop organisations for each handicapped person who remains in normal employment for twelve months following at least six months training by the organisation.

During the year ended 30 June 1977, expenditure totalling \$5 570 000 was approved under the Act to be paid to eligible organisations in South Australia.

#### **Handicapped Children's Benefit**

A benefit is payable by the Commonwealth Government for each physically or mentally handicapped child who is under sixteen years of age and resides in an approved home conducted by a charitable organisation. From November 1976, the rate of benefit has been \$5 per day. In 1976-77, expenditure by the Commonwealth Government on handicapped children's benefits in South Australia was \$229 274. At 30 June 1977, 224 eligible handicapped children were accommodated in seven approved homes in South Australia.

#### **Reciprocal Agreements**

*New Zealand.* An agreement exists between the Governments of Australia and New Zealand for reciprocity in social services. The arrangements cover age, invalid, wives and widows pensions, family allowances, and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence. Residence in one country may be treated as residence in the other country in relation to entitlement to benefits in which a residential qualification applies. Persons from one country taking up permanent residence in other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country. Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

*Britain.* A reciprocal agreement on social services exists between Britain and Australia. Under the current agreement residence in one country may be treated as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies. Australians going to Britain for permanent residence are treated in Britain as if national insurance contributions had been paid while in Australia, so that they can qualify for various National Insurance benefits. There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

#### **Deserted Wives Assistance**

The *State Grants (Deserted Wives) Act 1968* provides for assistance to be given by the Commonwealth Government to the States in respect of aid for needy mothers with children, where there is no breadwinner and the mothers are not eligible for benefits under the Social Services Act. Broadly these include deserted wives and deserted *de facto* wives during the first six months of desertion; wives and *de facto* wives of prisoners during the first six months of the husband's imprisonment; and other separated wives and unmarried mothers during the first six months after the birth of a child or separation.

#### **Telephone Rental Concessions**

The Department of Social Security with the Australian Telecommunications Commission provides telephone rental concessions to qualified pensioners in the form of a one-third reduction in annual rental charges.

### The Telephone Interpreter Service

A Telephone Interpreter Service is operating through the Department of Social Security as an adjunct to migrant welfare services. It acts as a multi-lingual information service both to migrants, especially those with queries regarding government services, and to professional people experiencing language problems with a patient or client.

## NATIONAL HEALTH SERVICES

### Expenditure

The following table shows Commonwealth Government expenditure in South Australia from the National Welfare Fund, the Health Insurance Fund and under the *States Grants (Hospital Operating Costs) Act 1976*, on the various aspects of the national health services. The amounts shown are the direct costs of these benefits and services and do not include the administrative costs.

#### National Health Services Expenditure, South Australia

Type of Benefit	Year First Paid	1973-74	1974-75	1975-76	1976-77
\$'000					
National Welfare Fund:					
Hospital and nursing home benefits (a) (b) . . . . .	1946	21 994	31 126	(c) 21 344	(c) 16 088
Medical benefits (b) . . . . .	1953	17 969	20 370	(d) 6 942	(d) 65
Pensioner medical service . . . . .	1951	3 845	5 109	(d) 539	—
Deficit financing of nursing homes (e) . . . . .	1975	—	—	9 513	13 191
Domiciliary nursing care (f) (g) . . . . .	1973	632	770	852	912
Pharmaceutical benefits (g) . . . . .	1948	13 118	16 082	13 106	9 949
Pensioner pharmaceutical benefits (g) . . . . .	1951	6 294	7 400	9 884	10 086
Anti-tuberculosis campaign . . . . .	1947	1 041	1 106	655	559
Milk for school children . . . . .	1951	699	—	—	—
Other . . . . .	—	413	436	769	1 348
Health Insurance Fund:					
Medical benefits (g) (h) . . . . .	1975	—	—	57 380	46 507
Hospital benefits (i) . . . . .	1975	—	—	74 600	73 615
Health program grants . . . . .	1975	—	—	1 998	1 771
States Grants (Hospital Operating Costs) Act (j) . . . . .	1976	—	—	25 569	3 803
Total . . . . .		66 005	82 399	223 151	177 894

(a) Includes Northern Territory for nursing home benefits and payments.

(b) Includes benefits and payments for Northern Territory residents insured with South Australian hospital and medical organisations. There are no organisations registered in the Northern Territory.

(c) Includes benefit payments for hospitalisation before 1 April 1976.

(d) Payments for medical services rendered before 1 July 1975.

(e) Commenced 1 January 1975.

(f) Commenced March 1973.

(g) Includes Northern Territory.

(h) Includes advances to cash payment centres.

(i) Excludes payments in respect of recognised hospitals made between 26 May 1976 and 1 October 1976.

(j) Includes payments made to recognised hospitals for the period between 26 May 1976 and 1 October 1976.

### Medibank

On 1 July 1975 the Australian health insurance program, Medibank, came into operation replacing the previous voluntary health insurance arrangements, the Subsidised Health Benefits Plan and the Pensioner Medical Service.

Following a comprehensive review of Medibank, the Commonwealth Government decided to modify the operations of the health insurance program with effect from 1 October 1976. As a result of the modifications, Medibank no longer automatically covers all residents of Australia. All residents may elect to have Medibank coverage, but must insure privately if they elect otherwise. The operations of the Medibank arrangements are subject to ongoing review, and a number of further changes have been introduced at various stages since the major modifications from 1 October 1976.

Since 1 October 1976 there have been three main choices of health insurance available.

- (1) Standard Medibank. The benefits are basically 85 per cent of Schedule fees charged by doctors or the Schedule fee less \$5 whichever is the greater, and free shared-ward accommodation in recognised (*i.e.* public) hospitals with free medical care provided by doctors engaged by the hospitals. The 85 per cent coverage also applies to consultations by participating optometrists and certain services by approved dentists in the operating theatres of approved hospitals.

The Health Insurance Commission (a statutory authority constituted by an Act of Parliament) administers standard Medibank.

- (2) Standard Medibank plus basic 'hospital-only' insurance. This provides all the benefits of standard Medibank plus choice of doctor in hospital. The 'hospital-only' insurance coverage is available from private hospital benefits organisations including Medibank (Private) (administered by the Health Insurance Commission).

Contribution rates payable for basic 'hospital-only' insurance are subsidised by the Commonwealth Government and are generally lower than the rates payable by privately insured persons. The subsidy is designed to assist lower income earners.

- (3) Basic private health insurance. This provides basic hospital and medical benefits, and is available from private health benefits organisations including Medibank (Private).

In addition to basic private health insurance and basic 'hospital-only' insurance, private health benefits organisations offer coverage against the gap between medical benefits and schedule fees, fees charged for single room accommodation in recognised hospitals, costs for private hospital accommodation and various ancillary services.

### Levy on Income

The program now provides for a health insurance levy equivalent to 2.5 per cent of personal taxable income, with maximum levy payment of \$300 per annum (family) and \$150 per annum for a person without dependants. Those on the lowest incomes, most pensioners, certain Defence personnel and Repatriation beneficiaries, and those who take private insurance for both the basic medical and basic hospital benefits are exempt from the levy. Privately insured persons are required to make a declaration for taxation purposes in order to gain exemption from the levy. The responsibility for the administration of the levy rests with the Commissioner of Taxation.

### Hospital Cost-sharing Agreement

The original hospital cost-sharing arrangements between the Commonwealth and the South Australian Governments commenced on 1 July 1975. These arrangements were superseded by a new Agreement which has operated from 1 October 1976.

Under the new Agreement the Commonwealth meets 50 per cent of the net operating costs of recognised (formerly public) hospitals and central services in accordance with an annual budget formulated by a State Health State Standing Committee, comprising representatives of the Commonwealth and South Australian Governments, and approved by the respective Commonwealth and State Health Ministers. The Committee keeps the budgets under review and where necessary makes recommendations to the Ministers for variations to the approved budgets.

Since 1 July 1975 the Commonwealth Government has made payments to approved private hospitals of \$16 per day for each occupied bed.

The following table gives details of Commonwealth Government hospital benefit payments from 1973-74 to 1976-77.

### Hospital Benefits, South Australia

Type of Benefit	1973-74	1974-75	1975-76	1976-77
AMOUNT PAID (\$'000)				
National Welfare Fund:				
Hospitals;				
Insured patients (a) .....	2 683	2 800	(b)2 018	(b)25
Uninsured patients .....	43	39	(c)3	—
Special Account Advance and Deficit payments (a) (d) .....	5 949	9 248	6 453	(e)2 733
Subsidised Health Benefits Plan payments (a) .....	1 550	2 222	(f)712	30
Patients treated without charge .....	12	15	(c)2	—
Pensioner patients .....	1 912	1 879	(f)194	—
Nursing home patients(g) .....	9 778	14 699	11 769	13 179
Other nursing home payments(h) .....	68	224	193	122
<b>Total National Welfare Fund ....</b>	<b>21 994</b>	<b>31 126</b>	<b>21 344</b>	<b>16 089</b>
Health Insurance Fund:				
Hospitals;				
\$16 per day payments to private hospitals .....	—	—	7 730	7 789
Payments to recognised hospitals (i) .....	—	—	66 798	65 591
Section 34 payments to private hospitals .....	—	—	72	236
<b>Total Health Insurance Fund ....</b>	<b>—</b>	<b>—</b>	<b>74 600</b>	<b>73 616</b>

(a) Includes benefits and payments for Northern Territory residents insured with South Australian organisations.

(b) Hospitalisation before 1 April 1976.

(c) Hospitalisation in all hospitals before 1 July 1975 and in private hospitals for uninsured patients and patients treated without charge between 1 July 1975 and 1 April 1976.

(d) Reimbursements to registered hospital benefits organisations for losses incurred on chronic or pre-existing ailments and long-term illness.

(e) Hospitalisation before 1 October 1976.

(f) Hospitalisation before 1 July 1975.

(g) Includes Northern Territory.

(h) Includes payments for Northern Territory residents insured with South Australian organisations and covers Subsidised Health Benefits Plan fund benefit reimbursements and Special Special Advance and Deficit payments payable from 1 January 1973.

(i) Excludes payments under the *States Grants (Hospital Operating Costs) Act*.

Section 34 of the *Health Insurance Act 1973* allows the Minister to grant approval to non-profit private hospitals to provide care and treatment without charge to patients in free standard ward accommodation. A supplementary Commonwealth benefit is payable on an occupied-bed-day basis in respect of such hospital patients. This benefit is additional to the \$16 daily bed payments. The rate of supplementary Commonwealth benefit is determined on the basis of information on actual operating costs as advised by the hospital. The hospital then claims payment directly from the Health Insurance Commission. Payments of \$236 000 were made to South Australian hospitals in 1976-77 under this Section.

#### **Nursing Home Benefits**

Commonwealth Government nursing home benefits are paid direct to nursing homes on behalf of nursing home patients, the amount of benefit paid in respect of individual patients being deducted from the nursing home account payable by the patient.

Under the revised nursing home benefits arrangements which came into effect on 1 October 1977, the previously existing 'Ordinary Nursing Home Care Benefit' and 'Additional Benefit' have been combined to form a single benefit. As from that date there have been two forms of nursing home benefit payable by the Commonwealth Government as follows:

- (a) The basic benefit is payable by the Commonwealth Government at the rate of \$17.40 a day, in respect of all qualified nursing home patients other than those patients who are members of a registered hospital benefits organisation and receive this benefit from their organisation.
- (b) The extensive care benefit is payable at the rate of \$6 a day, in addition to the basic benefit, in respect of patients who need and receive 'extensive care' as defined in the National Health Act. As in the case of the basic benefit the extensive care benefit is payable by the Commonwealth Government only in respect of qualified patients who are not insured with a registered hospital benefits organisation and by the hospital benefits organisations in respect of their members.

Under the authority of the *Nursing Homes Assistance Act 1974*, the Commonwealth Government meets the operating deficits of certain religious and charitable nursing homes which enter into an agreement with the Government for this purpose.

#### **Domiciliary Nursing Care Benefit**

The domiciliary nursing care benefit of \$2 a day was introduced in March 1973. The benefit is designed to help meet the cost of home nursing and other professional care for aged people who are chronically ill but are being cared for in the home environment. The benefit can be paid to any person who provides continuous care for a patient in a private home which is the residence of the person and the patient.

Patients must be sixty-five years of age or more, have a certificate from their doctor stating that they have a continuing need for nursing care by a registered nurse and they must be receiving this care by a registered nurse on a regular basis involving at least two visits each week.

Provisions exist whereby, in certain circumstances, the normal requirement for two visits a week by a registered nurse may be relaxed. Such circumstances relate to areas remote from visiting nursing services or where a visiting nurse has certified as to the competence of the caring person in providing the necessary care with a lower frequency of visits being provided by a registered nurse.

While the benefit is directed towards the care of aged persons in a domicile which is the home of both the aged person and the person providing the care, the benefit does extend to include patients and beneficiaries living in certain aged persons complexes.

### Medical Benefits

Following the introduction of Medibank under the *Health Insurance Act 1973*, from 1 July 1975 all persons in Australia became eligible for medical benefits amounting to eighty-five per cent of the Schedule fee with the patient paying a maximum of \$5 for any medical service where the Schedule fee was charged for medical treatment provided by medical practitioners in private practice, optometrical consultations given by participating optometrists and some medical services carried out by approved dentists in the operating theatres of approved hospitals.

This basic entitlement continued virtually unchanged for all Australian residents with the modifications to Medibank from 1 October 1976; however, since that date coverage has been provided by either Standard Medibank or a registered private fund, including Medibank (Private).

Schedule fees are determined periodically by independent medical fees inquiries. These fees, however, are not binding on doctors. In the event of a doctor charging in excess of the Schedule fee, the patient has to bear the excess amount which is not recoverable by health insurance. Private benefit organisations offer insurance to cover the 'gap' between the basic benefit paid and the Schedule fee. New Schedule fees for 1978 based on the determination of the 1977 Medical Fees Enquiry come into operation from 1 January 1978.

Before 1 October 1976, doctors who chose to 'bulk-bill' Medibank were required to accept benefits payable for services as payment in full for those services. However, from 1 October 1976, doctors may, in addition to 'bulk-billing', charge patients an amount not exceeding the 'gap' between a schedule fee and benefits payable.

From 1 August 1977, bulk-billing for pathology services was restricted to services to eligible pensioners and their dependants.

Interim changes were introduced in relation to the Schedule fees and benefits payable for pathology services from 1 October 1976. These were superseded from 1 August 1977. A completely new Schedule of items of service and fees for pathology services was one of the principal changes. Another important change was the introduction of the 'Approved Pathology Practitioner Scheme', under which providers of pathology services had to give an undertaking to abide by a code of conduct, if they wished medical benefits to be payable for most pathology services. Such approval was not necessary where medical practitioners performed a specified range of simple pathology tests on patients of their own practice. Other changes, introducing requests in writing for pathology services, placed the onus on the practitioner ordering pathology that services were necessary for the medical care of their patients, and provided a higher level of fees and benefits for referred work performed by specialist pathologists for patients in the community (*i.e.*, not in recognised hospitals).

### Medical Benefit Exclusions

Medical benefit is not payable in respect of a professional service that is a medical examination for the purposes of life insurance, superannuation or provident account schemes, or admission to membership of a friendly society.

Unless the Minister for Health otherwise directs, medical benefit is not payable in respect of a professional service where:

- (1) the service has been rendered by or on behalf of or under an arrangement with the Commonwealth, a State or a local governing body, or an authority established by a law of the Commonwealth, a State or an internal Territory;
- (2) the medical expenses were incurred by the employer of the person to whom the service was rendered; or

- (3) the person to whom that service was rendered was employed in an industrial undertaking and that service was rendered to him for purposes connected with the operation of that undertaking.

Medical benefit is not payable where the service was rendered in the course of carrying out a mass immunisation.

#### *New Arrivals to Australia*

Immigrants who intended to live permanently in Australia are covered by the health insurance system just as other residents are. However, on arrival, they need to decide on the type of cover they want and they are required to pay the levy unless they choose to insure privately. A leaflet is issued overseas to intending visitors advising the situation and the desirability of taking out some form of insurance before departure.

Visitors to Australia are not eligible for standard Medibank benefits and, while in Australia, are responsible for their own health care costs.

Provision exists, however, under Section 6 of the Health Insurance Act, for visitors to be regarded as residents of Australia for the period of their stay. Only genuine hardship cases will be considered and, generally, individual applications must be made to the Health Insurance Commission.

Special arrangements apply for foreign students to be regarded as eligible for Standard Medibank benefits while in Australia.

#### **Hospital Benefits Reinsurance Arrangements**

Hospital insurance special account arrangements, under which the Commonwealth formerly reimbursed hospital benefits organisations for the cost of providing insurance cover for people who would otherwise be uninsurable because of chronic illness, etc., were replaced by reinsurance arrangements from 1 October 1976. Under the arrangements, the Commonwealth Government is continuing to subsidise benefits payments for such people through a Trust Fund which is administered by Trustees appointed by the Minister. The Commonwealth subsidy is limited to an amount appropriated by Parliament each year, and the remaining benefits liability for these people is shared equitably between the hospital benefits organisations according to claims experience of total membership.

#### **Health Program Grants**

Health program grants were introduced on 1 July 1975 as part of the Medibank program, and were primarily intended as a means of financing medical services provided in Australia by doctors employed on a salaried or sessional basis.

With the introduction of the new Medibank arrangements effective from 1 October 1976, the health program grant arrangements were reviewed within the context of the overall review of Medibank. The basic principle underlying the new Medibank arrangements is that the cost of medical services to privately insured persons should be met by the private medical benefits funds. This resulted in health program grant policy being changed to conform with this principle. Payments to organisations in receipt of a health program grant are generally now only given in respect of patients who are covered by Standard Medibank. Consequently the number of organisations approved under the health program grants arrangements has been substantially reduced. The grants no longer apply to those industrial organisations which provide personal health services for their employees.

The amount paid to approved organisations in South Australia during the 1976-77 financial year was \$1 771 000.



### Medical Services to Eligible Pensioners

With the termination of the Pensioner Medical Service on Medibank's introduction on 1 July 1975, 'eligible pensioners' i.e. pensioners issued with Pensioner Health Benefits (formerly PMS) cards, and their dependants became entitled to the full range of medical services, including those of private specialists and consultant physicians.

The Health Insurance Act reflects Government policy that pensioners receive these services without direct charge. Under Section 23 of the Act, the Minister for Health requests all medical practitioners in Australia to give an undertaking to 'direct-bill' Medibank for eligible pensioners who are not privately insured for basic medical and hospital benefits, thereby enabling them and their dependants to receive these services at no direct cost.

With the implementation of modifications to Medibank from 1 October 1976, the Government decided that all pensioners entitled to Pensioner Health Benefits would receive relief from the Medibank levy. Further, the Government, from 25 November 1976, amended the eligibility test for Pensioner Health Benefits to bring it into line with the new pension income test, effectively increasing the number of pensioners eligible for these benefits. This latter group of persons also receive relief from the levy. As well as seeking undertakings from doctors, the Government expects that doctors will accept benefits in full payment for services provided to eligible pensioners with Pensioner Health Benefits Cards, even where they have private insurance, and that generally doctors will not seek any 'gap' payment from a pensioner.

Eligible pensioners are still entitled, under the Pharmaceutical Benefits Scheme, to receive a wide range of medicines free of cost.

### Pharmaceutical Benefits

Under the Pharmaceutical Benefits Scheme certain medicines, when prescribed by a doctor, are made available to the general public upon the payment of \$2. Eligible pensioners are supplied free of cost. The drugs and medicinal preparations available as pharmaceutical benefits are determined on the advice of the Pharmaceutical Benefits Advisory Committee which also recommends the maximum quantities that can be prescribed. Pharmaceutical benefits are normally obtained through registered pharmacists.

#### Pharmaceutical Benefits, South Australia<sup>(a)</sup>

Year	Number of Benefit Prescriptions	Cost of Benefit Prescriptions			Additional Cost to Common- wealth Government (b)
		Total Cost	Patients Contributions	Net Cost Common- wealth Government	
	'000			\$'000	
1971-72 ...	4 345	11 080	3 164	7 916	2 183
1972-73 ...	4 378	11 977	4 328	7 649	3 018
1973-74 ...	5 254	14 572	5 207	9 365	3 684
1974-75 ...	5 992	17 302	5 941	11 361	4 630
1975-76 ...	5 854	21 286	8 297	12 988	1 709

(a) Excludes pensioner benefits. Includes Northern Territory.

(b) Payments to hospitals and miscellaneous services.

### Anti-tuberculosis Campaign

The national campaign to eradicate tuberculosis operated from 1948 to 1976. Under the terms of the arrangements, the Commonwealth Government paid for all capital expenditure on tuberculosis projects and equipment, and reimbursed the State the proportion of maintenance expenditure incurred in the diagnosis, treatment and control of tuberculosis in excess of that amount borne by the State in 1947-48.

The Commonwealth Government pays allowances to people suffering from tuberculosis to encourage them to give up work and undergo treatment. The allowances paid to persons suffering from tuberculosis are subject to an income test.

At 31 December 1977 the maximum income permitted before allowances were affected was \$20 per week for a single person and \$17.25 for each married person.

#### Anti-tuberculosis Campaign, South Australia

Commonwealth Government Expenditure	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Allowances paid to sufferers . . . . .	67	48	38	54	53
Maintenance expenditure (a) . . . . .	811	988	1 114	685	(b) 498
Capital expenditure . . . . .	243	395	31	30	—
<b>Total . . . . .</b>	<b>1 121</b>	<b>1 430</b>	<b>1 183</b>	<b>769</b>	<b>551</b>

(a) Includes administrative expenses not paid from National Welfare Fund.

(b) Half-year only.

At 31 December 1977, the allowance payable to a married person and his or her spouse was \$42.85 a week each. In addition, an amount of \$7.50 a week was paid for each dependent child who was under sixteen years of age or undergoing full-time education. This amount was apportioned evenly between the sufferer and the spouse. A single person without dependants, if not hospitalised, received \$52.55 a week or, if receiving hospital treatment free of charge, \$49.30 a week. Widows or widowers with dependent children either under sixteen years of age or undergoing full-time education received \$53.30 a week, plus \$7.50 a week for each dependent child plus a mothers or guardians allowance of \$4 a week. An additional mothers or guardians allowances of \$2 a week was also paid where there was a dependent child under six years of age or a dependent invalid child requiring full-time care.

### REPATRIATION BENEFITS

#### Disability Pensions

Disability pensions are paid by way of compensation to ex-servicemen and women who suffer incapacity because of war service, to their eligible dependents, and to the dependents of those whose death is related to service. There are four main classes of disability pensions.

The special (TPI) rate (\$94.40 a week from 3 November 1977) is payable to those who are deemed totally and permanently incapacitated.

The intermediate rate (\$65.00 a week from 3 November 1977) is payable to an ex-serviceman who, because of the severity of his war-caused incapacity, can work only part-time or intermittently and in consequence is unable to earn a living wage.

The general rate is payable to those who suffered war-caused disabilities but still retained some earning capacity. The pension payable depends on the degree of incapacity,

the maximum from 3 November 1977 being \$35.65 a week. Pensions are also payable for a wife and each child under sixteen years of age under both special and general pensions. Student children also qualify.

The widows rate is payable to widows of ex-servicemen who died as a result of war service, and to any children under sixteen years of age. An additional domestic allowance is payable to certain classes of widows. From 3 November 1977 the widows rate was \$49.30 a week and the domestic allowance \$12.

#### Disability Pensions, South Australia<sup>(a)</sup>

##### Pensions in Force at End of Year

Year	Incapacitated Ex-Servicemen	Dependants of		Total	Expenditure
		Incapacitated Ex-Serviceman	Deceased Ex-Servicemen		
					Number
1972-73 ..	19 423	25 345	5 048	49 816	18 405
1973-74 ..	19 138	24 413	4 986	48 537	21 010
1974-75 ..	18 726	23 545	4 866	47 137	26 583
1975-76 ..	18 246	22 406	4 762	45 414	27 971
1976-77 ..	17 910	21 340	4 676	43 926	31 042

(a) Includes Northern Territory.

#### Service Pensions

Service pensions are payable to ex-servicemen who served in a theatre of war and have reached the age of sixty years (fifty-five for women) or who are permanently unemployable or suffering from pulmonary tuberculosis. The service pension is equivalent in amount to the social services age and invalid pensions and is subject to the same income test. It also confers eligibility for a full range of medical and dental treatment. The dependants of service pensioners may continue to receive their appropriate allowance upon the death of the pensioner. All service pensioners aged seventy years and over have received the pension free of the income test from 8 May 1975.

#### Service Pensions, South Australia<sup>(a)</sup>

##### Pensions in Force at End of Year

Year	Ex-Servicemen	Dependants of		Total	Expenditure
		Pensioner Ex-Servicemen	Deceased Pensioners		
					Number
1972-73 .....	6 929	2 444	456	9 829	7 467
1973-74 .....	7 753	2 849	383	10 985	10 340
1974-75 .....	8 241	3 384	368	11 993	15 133
1975-76 .....	9 373	4 404	345	14 122	21 406
1976-77 .....	10 674	5 568	324	16 566	28 667

(a) Includes Northern Territory.

### Medical Services

The Department of Veterans' Affairs provides hospital treatment, general practitioner services, specialist facilities, pharmaceutical benefits, dental treatment, and nursing home benefits for eligible persons. A comprehensive rehabilitation and social worker service is also available. Medical treatment is provided for all service-related disabilities, pulmonary tuberculosis, and all forms of malignant cancers. Treatment for all non-service-related disabilities is made available to veterans receiving a disability pension at or above the 100 per cent general rate, veterans of the Boer and 1914-18 Wars; veterans who are ex-prisoners of war, veterans in receipt of service pensions (subject to income being within the limits governing the provision of free medical treatment and other fringe benefits), widows, and certain dependants of deceased male veterans whose deaths have been accepted as related to service.

In-patient and out-patient treatment is provided at the Repatriation General Hospital, Daw Park. Facilities at the Out-patient Department include radiological, pathological, physiotherapy, and chiropody services in addition to medical specialist examinations.

The Repatriation Artificial Limb and Appliance Centre, as well as attending to repatriation needs, provides appliances and services for other government departments and provides artificial limbs free of charge to all disabled members of the community.

#### Department of Veterans' Affairs: Medical Services, South Australia<sup>(a)</sup>

Year	In-patients: Total Treated		Out-patients: Number of Visits		Pharmaceutical Benefits
	Daw Park	Other Hospitals	Daw Park	Visits to or by Medical Officer	
			Number		\$
1972-73 .....	5 251	840	73 650	209 872	1 514 849
1973-74 .....	5 839	882	74 999	180 257	1 571 946
1974-75 .....	6 107	935	76 849	189 087	1 699 990
1975-76 .....	5 794	897	76 197	187 901	2 300 005
1976-77 .....	5 738	270	76 847	174 023	2 344 959

(a) Includes Northern Territory.

### Education and Training

Assistance in education and training is provided, through the Department of Veterans' Affairs for children of ex-servicemen whose death, blindness or total and permanent incapacity is accepted as service-related. The Soldiers' Children Education Board guides and supervises the progress of children receiving such assistance.

### Other Services

Other assistance, through the Department of Veterans' Affairs, includes gift cars for certain disabled ex-servicemen, aids for blinded ex-servicemen and business re-establishment loans. Funeral grants of up to \$100 are paid on the death of certain ex-servicemen and dependants.

### ABORIGINAL ADVANCEMENT

By agreement with the South Australian Government on 1 December 1973 the Commonwealth Government assumed responsibility in relation to Aboriginal affairs policy, planning, financial administration, information and co-ordination. These functions are administered in South Australia by officers of the Department of Aboriginal Affairs in

Adelaide and Port Augusta. The transfer of responsibilities, however, did not include the Aboriginal Reserves in South Australia which were to be managed and controlled by the Minister of Community Welfare until such time as these communities elected to take over responsibility for running their own affairs. Most Reserves have now assumed such control.

The policy of the Commonwealth Government is that, wherever possible, Aboriginal people should avail themselves of the normal facilities provided for the total community, for example, welfare, health and education, and the State or Commonwealth Government departments responsible for these functions will continue to provide such services. Where special additional programs are needed for Aboriginal people the Commonwealth Government will provide the finance to enable these to be carried out through the appropriate Government or voluntary agency, with the co-ordination of arrangements being handled by the Regional Director of the Department of Aboriginal Affairs. Funds are also made available direct to Aboriginal organisations and communities within the State for programs designed to develop Aboriginal self-management and achievement.

The following table shows funding by the Department of Aboriginal Affairs on various aspects of Aboriginal advancement.

#### Department of Aboriginal Affairs: Funding, South Australia

Particulars	1975-76	1976-77
Direct Funds:	\$	\$
Housing .....	2 413 705	962 287
Health .....	85 000	255 174
Education .....	590 877	637 000
Welfare .....	247 130	224 215
Community councils .....	1 771 653	1 752 201
Recreation .....	91 000	29 000
Legal Aid .....	358 600	410 000
Employment .....	270 093	305 927
Enterprises .....	1 444 746	206 517
Total .....	7 272 804	4 782 321
State Grants:		
Department for Community Welfare .....	265 000	446 140
Education Department .....	1 009 000	1 172 000
South Australian Housing Trust .....	2 968 000	2 800 000
Department of Further Education .....	140 000	284 860
Department of Public Health .....	1 097 000	1 151 000
Total .....	5 479 000	5 854 000

Specific needs in education were met with the establishment, in 1973, of both the Aboriginal Community College, as part of Torrens College of Advanced Education, and the Aboriginal Task Force at the South Australian Institute of Technology. The College provides remedial work-orientated training and self-development courses for Aborigines who have had difficulty in maintaining work continuity. The Task Force is a community development training program which provides trained staff for Government departments handling aspects of Aboriginal Affairs and for Aboriginal communities themselves.

The Aboriginal Housing Board is a predominantly Aboriginal body which makes policy and gives direction to the South Australian Housing Trust in relation to houses for Aboriginal tenants. The Trust acts as agent for the Board in purchasing, maintenance and rent collection.

The State Government, in 1974, set up the South Australian Aboriginal Advancement Committee to co-ordinate and overview all activities of State Departments providing a service to Aborigines. The Committee meets regularly and has a full-time interim executive officer.

## STATE WELFARE SERVICES

### EXPENDITURE

The following table shows receipts and outlay by the State Government from Consolidated Revenue Account on various aspects of social security and welfare. For further details of the classifications in the table see Part 11.3 State Government Finance.

#### Receipts and Outlay on Social Security and Welfare, South Australia, 1976-77<sup>(a)</sup>

Purpose	Outlay (b)					Receipts (b)
	Purchases of Goods and Services	Current Grants to Private Non-profit Organisations	Less Charges for Goods and Services Supplied	Cash Benefits to Persons	Total (Incl. Other)	Total (c)
	\$'000					
General administration, regulation and research .....	8 337	34	143	548	8 994	100
Care of and assistance to:						
Aged persons .....	1 714	28	740	7 611	9 090	246
Incapacitated and handicapped persons .....	—	747	—	22	774	—
Unemployed and sick persons .....	1	—	—	165	7 166	—
Ex-servicemen .....	—	2	—	153	155	—
Widowed and deserted spouses .....	—	—	—	4 255	4 255	1 885
Families and children (d) .....	2 900	665	39	887	4 494	—
Other social security and welfare services:						
Services to Aborigines n.e.c. (e) .....	669	—	75	—	673	30
Other .....	87	329	4	40	522	815
<b>Total .....</b>	<b>13 708</b>	<b>1 805</b>	<b>1 001</b>	<b>13 681</b>	<b>36 123</b>	<b>3 076</b>

(a) Consolidated Revenue Account only.

(b) Charges for goods and services supplied have been excluded from receipts and deducted in calculating outlay.

(c) Mainly grants from Commonwealth Government.

(d) Excludes reformatory institutions.

(e) Includes only programs designed to meet specific needs of persons of Aboriginal descent.

## COMMUNITY WELFARE

The first official activity for the social welfare of children and adults was taken soon after colonisation. The early State immigration authorities cared for new arrivals, and sometimes immigrants were accommodated temporarily in tents on the parklands. A more permanent solution of the problems of the destitute came with the first Destitute Persons Relief Act in 1842. In 1849 a Destitute Board was formally appointed and assumed responsibility for the welfare of both children and adults. In 1886 a State Children's Council was formed to deal with children, while the Destitute Board continued with its other work. The Children's Welfare and Public Relief Board was created by the

Maintenance Act, 1926 to do the work of both these earlier authorities. The Chairman of the Board was the permanent head of the Children's Welfare and Public Relief Department.

In 1965 a new portfolio of Minister of Social Welfare was created. Subsequently the Children's Welfare and Public Relief Board was abolished under the Social Welfare Act, 1926-1965, and its powers and functions vested in the Minister of Social Welfare, a body corporate under the Act. The Department then became the Department of Social Welfare and the Social Welfare Advisory Council was set up to advise the Minister on any question regarding social welfare. On 1 July 1970 this Department was amalgamated with the Department of Aboriginal Affairs to form the Department of Social Welfare and Aboriginal Affairs.

The Social Welfare Act, 1926-1971, the Aboriginal Affairs Act, 1962-1968 and the Children's Protection Act, 1936-1969 were replaced by the Community Welfare Act, 1972 which became operative on 1 July 1972. Under this Act the Department became the Department for Community Welfare with the objectives of promoting the general well-being of the community, encouraging the welfare of the family as the basis of community welfare, promoting co-ordination of services and collaboration among various agencies and promoting research, education and training in community welfare.

This Act provides for the establishment of community welfare centres at selected locations throughout the State and the full range of the Department's services is available from these centres. District offices have been established at Adelaide, Amata, Berri, Brighton, Campbelltown, Ceduna, Christies Beach, Coober Pedy, Elizabeth, Enfield, Glenelg, Indulkana, Kadina, Leigh Creek, Maitland, Mitcham, Modbury, Mount Gambier, Murray Bridge, Norwood, Nuriootpa, Port Adelaide, Port Augusta, Port Lincoln, Port Pirie, Salisbury, 'The Parks' area, Woodville and Whyalla, and branch offices at Clare, Hindmarsh, Maitland, Marion, Millicent, Naracoorte, Oodnadatta, Peterborough, Renmark, Stirling and Thebarton.

The decentralisation program has led to a new sense of involvement in the community and its many welfare needs. There is greater flexibility and opportunity to support local efforts to provide new services for youth, the aged, single parents and others in need.

Community Councils for Social Development involve local people in providing better welfare services for their own communities. Departmental support is given to the Councils through the Community Development Branch.

The Department has developed and extended its ties with the Commonwealth Government and other State Government departments and with local government and voluntary bodies. A Community Welfare Grants Advisory Committee, established in 1972, recommends grants to assist voluntary community welfare organisations with both capital and operating costs.

A special Youth Services Unit gives advice and guidance to organisations seeking to develop youth programs and facilities and administers the Duke of Edinburgh's Award Scheme in South Australia.

A special 24-hour emergency service in the Adelaide metropolitan area helps in personal and family crises. This service works in close co-operation with the Police Department. Crisis Care workers especially trained to help people under stress, provide on-the-spot assistance to individuals and families, and cars fitted with two-way radios and radio telephones ensure prompt attention, where necessary.

A Budget Advice service operates from eighteen district offices to help people manage their budgets, re-arrange debts and plan their spending.

Job hunters clubs provide a focal point for unemployed young people to meet others who are employed, to share mutual problems, to make contact with people who can give

guidance and support and have the opportunity to become involved in personal development and self-help activities. The clubs operate at fourteen locations throughout the State where there are large concentrations of unemployed young people.

### Care and Supervision of Children

Under the Juvenile Courts Act, 1971-1975 the emphasis is on the welfare and rehabilitation of young offenders, together with the adequate protection of the community.

Any child up to the age of eighteen may be dealt with as neglected or uncontrolled and those up to the school leaving age may be charged with truancy. Offenders dealt with are between the ages of ten and eighteen years. The Juvenile Court may place the child under the care and control of the Minister of Community Welfare or on a bond. He may be placed under the supervision of a Departmental officer or may be obliged to attend at a youth project centre as a condition of the bond. Either of these court orders results in Departmental help for the child for the period set by the Court.

Some children under the care and control of the Minister are placed in Departmental homes or centres for care, treatment and training. Many are placed with their parents or with foster parents, or in other substitute care under the supervision of a community welfare worker.

The Department for Community Welfare has established a special treatment services branch with the following functions:

- (1) the development of community based treatment projects including the Youth Project Centre at Magill and the Norwood Project Centre;
- (2) the oversight and development of Juvenile Aid Panels;
- (3) assistance for juveniles appearing before the Courts;
- (4) special residential care for;
  - (a) offenders who cannot be satisfactorily maintained by the community,
  - (b) offenders on remand from Court and sometimes needing assessment,
  - (c) children who have been neglected or whose foster placement has broken down.

The Youth Project Centre, Magill, provides intensive non-residential treatment facilities for young offenders. The Norwood Project Centre helps children who are referred with learning and behavioural difficulties. The Northern Suburbs Project Team operates 'The Parks' area, including Angle Park, Mansfield Park, Ferryden Park, Thebarton and Croydon.

Juvenile Aid Panels provide a non-judicial setting to deal with certain children under sixteen years, alleged to have committed an offence, or be uncontrolled or habitual truants. A community welfare worker from the Department for Community Welfare and either a senior police officer (in most cases) or a justice of the peace constitute a panel. Panels may warn or counsel children or parents. They may request the child or his parents to co-operate in a rehabilitative program for the child. Panels have power to refer a child to a Juvenile Court and the child or his parents may ask for such a referral.

### *Juvenile Court Services*

Officers from the Department for Community Welfare appear in all major Juvenile Courts to present reports and help Courts to reach a decision in the best interests of the child.



Juvenile Courts officers also represent the Department in the prosecution of neglected and uncontrolled charges when necessary. They protect the interests of children under the guardianship of the Minister when these children appear in court.

#### Residential Care

At 30 June 1977 the Department was operating thirty-seven residential care homes and centres. The large number of family homes, cottage homes, hostels and training centres allows a wide range of choice in selecting the environment most appropriate to the needs of each individual.

Details of the number of children committed to the care and control of the Minister of Community Welfare are given in the following table.

**Children Placed under Care and Control for the First Time  
Year Ended 30 June 1977**

Particulars	Males	Females	Total	Percentage of Total
	Number			Per cent
From the Juvenile Courts:				
Offenders .....	78	22	100	38.1
Neglected .....	28	16	44	16.7
Uncontrolled .....	2	2	4	1.5
Habitually absent from school .....	7	2	9	3.4
In default of fine .....	45	1	46	17.5
Admitted under Community Welfare Act (Child is in danger of becoming neglected or uncontrolled):				
Neglected .....	13	14	27	10.3
Uncontrolled .....	5	—	5	1.9
Transfer of control (Interstate) .....	17	11	28	10.6
<b>Total .....</b>	<b>195</b>	<b>68</b>	<b>263</b>	<b>100.0</b>

NOTE: In addition to the above, there were 370 children (193 boys and 177 girls) admitted to the temporary care and control of the Minister of Community Welfare during the year; 359 of these (196 boys and 163 girls) were released when the short-term need for assistance had ceased.

At 30 June 1977, there were 1 819 (2 013 in 1976) State children under the care and control of the Minister of Community Welfare of which 227 (247 in 1976) children were in departmental institutions and 1 592 (1 766 in 1976) children were not in institutions.

The homes and centres under the control of the Department include McNally Training Centre for older youths, who have been committed for residential training or assessment by a Juvenile Court following an offence, and Brookway Park, which provides residential training or assessment for boys between ten and fifteen years, most of whom have been committed by a Juvenile Court following an offence. Vaughan House provides remand and assessment facilities for girls, generally from twelve to eighteen years.

Lochiel Park is a training centre for boys, generally between the ages of fourteen and eighteen years, who are mentally retarded and under care and control of the Minister. In addition, cottage and family homes provide a family-like atmosphere for small groups of boys and girls.

In addition, there were 619 children placed on bonds requiring supervision by Departmental officers during 1976-77 and the total number of such children at 30 June 1977 was 672 (585 boys and 87 girls).

The importance of keeping a child in his own home whenever possible cannot be over-emphasised and children are placed out of Departmental homes and centres as soon as possible. Review boards consider the social background of each child under care and control and make recommendations regarding action to be taken for the child's benefit and welfare.

When a child is returned to his own home from an alternative placement, support is continued to the whole family through counselling, motivation of self-help programs, and through the full utilisation of appropriate resources throughout the Department and the community. The same services of a community welfare worker are available to all children under care and control or on bonds with supervision as well as to other families in the community seeking help.

Other responsibilities of the Department's welfare workers include the investigation of allegations that children are neglected, ill-treated or uncontrolled, and the counselling of youths and children voluntarily referred to Departmental officers. Departmental welfare workers are also appointed as attendance officers under the Education Act to assist in the prevention of school truancy. Medical and other specialists including psychologists are employed within the Department.

#### **Licensing of Foster Parents and Children's Homes**

Under the Community Welfare Act, 1972-1976 every foster parent caring for a child under the age of fifteen years must be approved by the Director-General of Community Welfare, who is responsible for each child's welfare. Departmental officers visit such homes regularly.

Consultant and licensing services are provided in the areas of Child Care, Family Day Care and Non-Statutory Children's Homes. Family Day Care Co-ordinators are working in fourteen districts. At Mansfield Park and Ferryden Park there are joint Department for Community Welfare/Education Department projects combining Family Day Care with pre-school and child-parent programs, while at Campbelltown, Brompton, Nangwarry and Thebarton both Departments in co-operation with local groups, operate Child Care, Resource Centre and Pre-school facilities.

#### **Adoptions**

South Australia has had an Adoption of Children Act since 1925, the current legislation being the Adoption of Children Act, 1966-1978. Under this Act the interests of the children are considered paramount. The right to place children for adoption is restricted to the Director-General of Community Welfare or to private adoption agencies which the Director-General has approved. The adoptive parents, who must be approved by the Director-General, become the legal parents after the adoption order is made by an Adoption Court (usually about six months after placement).

Adoptions made in other Australian States are recognised in South Australia; similarly South Australian adoptions are recognised in the other States. A more detailed account of the South Australian legislation was included on pages 221-4 of the *South Australian Year Book* 1968.

There are two types of adoptions:

(1) adoptions where a child surrendered by its natural parent(s) is placed with approved adoptive parents and the identity of either party is kept secret. These are covered by Regulation 46 of the Act.

(2) adoptions where the identity of one or both parties is disclosed, mainly the adoption of children by step-parents but also including adoptions by relatives, foster parents and children from other countries (inter-country adoptions). These adoptions are covered by Regulation 47 and 49 of the Act.

The following table refers to all types of adoption where the Court order has been finalised during the financial years shown.

#### Number of Adoptions, South Australia

Age of Child (a)	1972-73	1973-74	1974-75	1975-76	1976-77
Under one year . . . . .	426	352	271	227	195
One year and under two . . . . .	46	37	47	73	42
Two years and under six . . . . .	75	68	112	96	216
Six years and under thirteen . . . . .	71	59	92	100	160
Thirteen years and under sixteen . . . . .	17	10	11	15	24
Sixteen years and over . . . . .	14	32	18	38	21
<b>Total . . . . .</b>	<b>649</b>	<b>558</b>	<b>551</b>	<b>549</b>	<b>658</b>

(a) At date of adoption order.

The next table gives, for the two types of adoption, the number of adoption orders granted, the number of applications and the number of children placed during the financial year. The number of children placed does not include children adopted by step-parents or relatives *i.e.* those situations where an agency has not actively arranged the placement of the child.

#### Adoptions, South Australia

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
<b>Number of adoptions granted:</b>					
Identity not disclosed (Reg. 46)	467	394	323	305	222
Particular person—identity known (Regs. 47 and 49) . . . . .	182	164	228	244	436
<b>Total . . . . .</b>	<b>649</b>	<b>558</b>	<b>551</b>	<b>549</b>	<b>658</b>
<b>Number of applications received:</b>					
Identity not disclosed (Reg. 46)	830	755	639	476	326
Particular person—identity known (Regs. 47 and 49) . . . . .	218	239	291	305	340
Inter-country (Reg. 47) . . . . .	26	53	366	220	161
<b>Total . . . . .</b>	<b>1 074</b>	<b>1 047</b>	<b>1 296</b>	<b>1 001</b>	<b>827</b>
<b>Number of children placed (a):</b>					
Australian born . . . . .	443	396	275	239	189
Inter-country . . . . .	3	33	138	60	60
<b>Total . . . . .</b>	<b>446</b>	<b>429</b>	<b>413</b>	<b>299</b>	<b>249</b>

(a) The average waiting time for a child to be placed varies from year to year depending on the number of applicants and the number of children surrendered.

### Legal Services

Prosecutions for neglected, ill-treated and uncontrolled children are carried out by officers of the Department for Community Welfare who may also appear in Court where State children are involved. The Department assists by providing reports on the social background of children whose cases are considered by the Courts.

The Department provides a free legal service to deserted wives and other persons with maintenance, matrimonial and domestic problems. Officers interview and advise wives and husbands and negotiate with other parties and solicitors for settlements.

When necessary the officers institute legal proceedings and appear in Court on behalf of those seeking assistance to obtain Orders for separation, custody of children, access and maintenance. The Department does not take action for divorce. Some 2 300 maintenance payments are collected and paid weekly to deserted wives by the Department. Assistance is given to unmarried mothers in affiliation cases.

### Financial Assistance

The Director-General for Community Welfare may, subject to any directions of the Minister, provide assistance to families or individuals in need. The assistance may be provided in the form of money or commodities or the provision of other services which will promote the welfare of the family or individual.

During 1976-77 financial assistance was issued to 13 409 applicants, representing 33 587 persons. The gross cost of assistance issued was \$6 326 414.

The Department provides residential care in a home at Magill for aged people in special need, most of whom are pensioners. The daily average occupancy of the Magill home was 125 during 1976-77.

### Rates Remission Scheme

A remission of rates and taxes scheme for pensioners and others able to demonstrate exceptional circumstances of hardship is operated by the State Government. The scheme provides for a remission of up to 60 per cent of the cost of water and sewerage rates, land tax and council rates charged on dwellings, including flats and units owned and occupied by eligible applicants. Pensioners receive a direct remission from the rating authority on application. Applications from non-pensioners are processed by the Department and in 1976-77, 1 026 claims totalling \$30 676 were approved. The total cost of remissions by all authorities was met by the Department and totalled \$5 963 013 for 1976-77 in the following categories:

	\$
Land tax .....	353 494
Water, sewerage .....	2 782 514
Local government .....	2 827 005

### Aboriginal Reserves

The Aboriginal Lands Trust was established by the South Australian Government in 1966 to hold the permanent freehold titles of existing Aboriginal Reserves, together with the titles to other land which would be purchased in future years for the use of Aboriginal people.

The Trust carries out its work on behalf of all Aboriginal people in South Australia and is completely independent of the Government.

During 1976-77, fourteen of the sixteen remaining areas of Crown Land proclaimed as 'land for the use and benefit of Aboriginal people' were transferred to the Trust. The Trust now holds fee simple title to 35 former Aboriginal Reserves, comprising a land area of 474 428 hectares. Of the 35 former Reserves, the ten areas comprising the major

Aboriginal land areas in South Australia have been perpetually leased by the Trust at no cost to incorporated Aboriginal Community Councils elected by the respective local communities.

Of the other 25 Aboriginal areas vested in the Trust, eleven have been leased to Aboriginal individuals or groups for periods up to 25 years, depending on the needs and wishes of the lessee.

Currently, policy of the Trust is to act essentially as a land title holding body only and to lease its land and assets to Aboriginal communities, organisations and individuals without interference in the running or use of those properties.

The South Australian Government established the Pitjantjatjara Land Rights Working Party in April 1977, to consider the feasibility of granting freehold titles for land in the North West Reserve and adjacent areas to Aboriginals. The Working Party has still to present its recommendations to the Government.

At present there are six major communities in the area and seven 'homeland' communities, smaller groups who have chosen to return to traditional lands away from the larger communities. It is expected more homeland communities will be established progressively.

Communities incorporated under the Association Incorporation Act have an elected council. Advisory and/or managerial staff are appointed according to the degree of control and management responsibility accepted by the community. The Department for Community Welfare still supplies electrical and water supply services at Indulkana and Amata.

#### PRIVATE WELFARE SERVICES

There are numerous charitable and benevolent organisations working within South Australia. A large proportion of these derive revenue from regular donations, subscriptions and income from bequests; nearly all derive revenue from special functions. A number also receive Commonwealth, State or local government grants. The Collections for Charitable Purposes Act, 1939-1947, requires the registration of charitable organisations before they may actively solicit funds.

Organisations which have a wide range of activities include the Australian Red Cross Society, Marriage Guidance Council, Service to Youth Council, the welfare bureaux and missions of the various churches, and organisations catering for ex-servicemen and their dependants. Most of these agencies maintain full-time staff and generally employ professional social workers. Other organisations cater for more specific needs, covering a wide range of physical and sociological disabilities. This includes the care of physically and mentally handicapped persons such as crippled children, the blind, deaf-mutes and alcoholics; also of specific groups such as aged persons, Aborigines and migrants. Many of these organisations depend largely or entirely on voluntary aid.

For details of the numerous bodies concerned with social welfare, reference should be made to the *Directory of Social Resources* published jointly by the South Australian Council of Social Services and the South Australian Health Commission. For those in need, the Citizens Advice Bureau advises on how to benefit from and how to use wisely the many services provided by the Commonwealth and State Governments and the various voluntary organisations.

#### REGISTERED MEDICAL AND HOSPITAL BENEFIT ORGANISATIONS

In 1953 Australia introduced a system of voluntary health insurance supervised and financially supported by the Commonwealth Government. Before the introduction of Medibank under the *Health Insurance Act 1973*, medical benefits and full hospital benefits

were payable to members of a registered benefits organisation. In most cases both medical and hospital benefits were provided by the one organisation. By paying regular contributions members became entitled to refunds covering the major part of medical and hospital expenses. The Commonwealth benefit was combined with the fund benefit in a single payment made by the registered organisation.

From 1 July 1975 all persons in South Australia became entitled to medical benefits at the same level as that previously paid by private benefit organisations and to free accommodation and treatment at recognised hospitals. Private benefit organisations, however, offered insurance to cover the 'gap' between the medical benefit paid by Standard Medibank and the Schedule fee for medical treatment. 'Gap' insurance was not available under the previous insurance system. This insurance was usually offered as a package comprising also benefits cover for a range of ancillary health services. Hospital benefits organisations continued to offer insurance to those persons who wished to be treated in a private hospital or as private in-patients in a recognised hospital.

The Commonwealth Government's amendments to the health insurance legislation resulted in significant structural changes to private health insurance arrangements from 1 October 1976. The status of private insurance altered considerably with the shift of the financing of health care for more than half the population to the private sector.

The changes introduced the concept of 'basic' medical and hospital benefits tables and 'supplementary' benefits tables to be provided by registered organisations. Benefits provided under the basic medical benefits table are equivalent to those provided under Standard Medibank. Supplementary medical benefits tables may provide the additional cover necessary to meet the full amount of the Schedule fees, dental benefits and benefits to cover paramedical services such as physiotherapy. The benefits provided under the basic hospital benefits table are aligned to fees charged in recognised (*i.e.* public) hospitals for shared ward accommodation. Supplementary hospital benefits tables provide the extra benefit cover needed when people seek private room accommodation in a recognised hospital or accommodation in a private hospital.

The contributions (premiums) payable to hospital benefits organisations depend on the scale of fund benefits required. Contribution rates to medical and hospital organisations may vary slightly between funds, and single and family rates are available.

#### Registered Medical Organisations, South Australia

Particulars	Unit	Nine Months Ended 30 June 1977 (a)
<b>Basic benefits table:</b>		
Registered organisations (b) (c) .....	No.	6
Membership (c) .....	'000	318
Estimated persons covered (c) .....	'000	842
Number of schedule services (d) .....	'000	2 508
Cost of schedule services (d) .....	\$'000	33 782
Fund benefit paid .....	\$'000	28 861
Gap insurance benefit paid .....	\$'000	3 352
Ancillary fund benefit paid .....	\$'000	2 180

(a) Benefit payments by registered medical benefit organisations for medical services received after the introduction of the modified health insurance arrangements on 1 October 1976. (b) Medical benefit organisations whose State of registration under the *National Health Act* is South Australia. (c) At 30 June 1977. (d) Schedule services are services performed by registered medical practitioners, participating optometrists and approved dentists, which are included in the medical benefits schedule, *i.e.*, Schedule 1 of the *Health Insurance Act*.

## Registered Hospital Organisations, South Australia

Particulars	Unit	Nine Months Ended 30 June 1977 (a)
Registered organisations (b) (c) .....	No.	9
Membership (c) .....	'000	366
Estimated persons covered (c) .....	'000	945
Basic benefits table:		
Hospital benefit days (d) .....	'000	564
Nursing home benefit days .....	'000	92
Professional service days (e) .....	'000	82
Outpatient services (f) .....	'000	(g)
Hospital benefit paid (d) .....	\$'000	22 290
Nursing home benefit paid .....	\$'000	945
Professional service benefit paid (e) .....	\$'000	1 658
Outpatient benefit paid (f) .....	\$'000	1
Supplementary fund benefit paid .....	\$'000	4 509
Ancillary fund benefit paid .....	\$'000	209

(a) Benefit payments by registered hospital benefit organisations for hospital and nursing home services received after the introduction of the modified health insurance arrangements on 1 October 1976.

(b) Hospital benefit organisations whose State of registration under the *National Health Act* is South Australia.

(c) At 30 June 1977.

(d) Hospital benefits are paid under basic benefits tables at the rate of \$40 per day, or the daily fee charged, whichever is the lesser, for hospitalisation in approved hospitals.

(e) Where a privately insured person in a South Australian recognised hospital receives medical services exclusively from medical practitioners employed by, or under arrangements made by, the hospital, a professional service charge of \$20 per day is raised. This charge is met by professional service benefit, and is additional to the daily bed charges raised.

(f) Outpatient benefit is payable in respect of charges raised for outpatient services by approved hospitals, and is equal to the fee actually charged, or the fee charged by recognised hospitals in the State of service, whichever is the lesser. South Australian recognised hospitals did not raise charges for outpatient services during the nine months ended 30 June 1977.

(g) Less than 500 services.

## FRIENDLY SOCIETIES

Friendly Societies are mutual organisations paying medical, hospital and other benefits to members and dependants in time of need. These societies are required to register under the Friendly Societies Act, 1919-1975. The Act is administered by the Chief Secretary through the Public Actuary who approves the table of contributions, the level of benefits and generally sees that the societies' rules and practices are in accordance with the law. A number of Friendly Societies are registered to pay Commonwealth Government medical and hospital benefits (see previous section), while others re-insure such benefits through a society created for this purpose.

Other benefits offered by some of the societies include sickness, funeral, dental, optical, pharmaceutical and physiotherapy benefits. Small loans and endowment assurance is also available. The Friendly Societies Act requires that separate funds be maintained for each of these benefits and members may contribute for all or for only a selection of benefits. However, a person is considered to be a full benefit member only if he contributes for sick pay and funeral benefits regardless of contributions for other benefits.

The level of benefits paid varies between societies, with sickness benefits generally on a declining scale as the period of illness lengthens. The Friendly Societies Act limits to \$4 000 any payment for endowment or funeral benefits and to \$21 any weekly payment to members for sickness or superannuation.

## Friendly Societies, South Australia

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
Number of registered societies (a) . . . . .	13	13	12	12	11
Number of members (a) (b) . . . . .	50 077	50 664	50 779	49 888	48 057
Revenue (c):			\$'000		
Contributions and levies . . . . .	11 744	12 198	15 023	21 626	18 805
Interest, dividends and rent . . . . .	1 243	1 311	1 496	2 000	2 242
Other . . . . .	1 961	2 726	3 120	5 179	5 015
<b>Total revenue . . . . .</b>	<b>14 947</b>	<b>16 235</b>	<b>19 638</b>	<b>28 805</b>	<b>26 062</b>
Expenditure (c):					
Sick pay . . . . .	173	173	158	156	150
Medical attendance and medicine . . . . .	3 878	4 401	4 981	7 435	4 472
Sums payable at death . . . . .	145	142	143	150	167
Hospital benefits . . . . .	7 198	8 432	10 045	14 567	11 597
Administration . . . . .	1 641	1 793	2 149	2 883	3 317
Other . . . . .	690	613	571	644	2 508
<b>Total expenditure . . . . .</b>	<b>13 726</b>	<b>15 554</b>	<b>18 047</b>	<b>25 835</b>	<b>22 211</b>
<b>Total funds . . . . .</b>	<b>22 184</b>	<b>22 865</b>	<b>24 456</b>	<b>27 426</b>	<b>31 277</b>

(a) At 30 June. (b) Full benefit members; does not include those who contribute for medical and hospital benefits only. (c) Receipts and payments of Commonwealth Government medical and hospital benefit subsidies excluded.

The Friendly Society Medical Association operates thirty-one pharmacies in the metropolitan area and one at Port Pirie where medicines are dispensed for Friendly Society members at concession prices. The Mount Gambier United Friendly Societies' Dispensary Incorporated operates a shop at Mount Gambier.

The Friendly Societies Act also prescribes the nature of assets which societies may hold. Their most important investment is in property mortgages and in particular in housing loans to members. They may also invest in government securities.

## 6.7 MARRIAGE

Registration of marriage has been compulsory in South Australia since 1842 when Acts 'for regulating Marriages in the Province of South Australia' and 'for registering Births, Deaths and Marriages in the Province of South Australia' were passed. The present legislation relating to marriages is the Commonwealth *Marriage Act* 1961 which came into full operation on 1 September 1963 superseding, in South Australia, the *Marriage Act*, 1936-1957.



The Principal Registrar of Births, Deaths and Marriages in South Australia carries out the statutory duties under the Act and has supervision over ministers of religion (as regards their duties under the Marriage Act), the District Registrars appointed to the twenty-two registration districts, and other persons authorised to perform marriages.

After a marriage the celebrant is required to forward the official certificate of marriage to the Principal Registrar who maintains at his office a register of all marriages celebrated in South Australia. In addition, a copy of the marriage certificate is forwarded by the office of the Principal Registrar to the District Registrar who maintains a register of the marriages celebrated in his district.

The total marriages and marriage rates for selected years from 1846 are shown in the Statistical Summary, Appendix A. Particulars relating to first marriages, remarriages and crude marriage rates for the last five years are shown in the following table. The crude marriage rate rose throughout the sixties from 6.99 in 1960 to 9.38 in 1970, gradually declined to a level of 8.72 in 1974 and fell substantially to 7.86 in 1975. The 1976 rate of 8.64 serves to highlight the effect of the Family Law Act with relation to the greatly increased number of divorced persons re-marrying. The crude marriage rate does not take into account changes over time in the age distribution of the population. Influences underlying the increase during the sixties include the upsurge of births immediately following the 1939-45 War, together with the effects of post-war immigration.

#### Previous Marital Status of Persons Marrying, South Australia

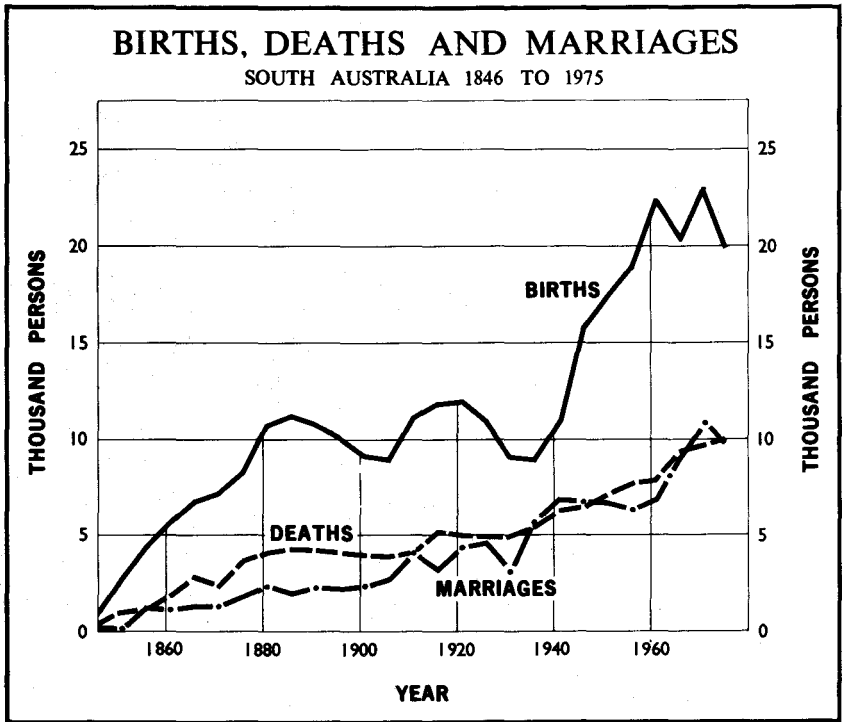
Year	Bridegrooms			Brides			Total Marriages	Rate (a)
	Bachelor	Widower	Divorced	Spinster	Widow	Divorced		
1972.....	9 779	323	727	9 798	359	672	10 829	9.01
1973.....	9 649	309	848	9 716	349	741	10 806	8.87
1974.....	9 538	353	878	9 560	388	821	10 769	8.72
1975.....	8 504	297	1 042	8 571	336	936	9 843	7.86
1976.....	8 515	391	1 996	8 659	459	1 784	10 902	8.64

(a) Per 1 000 of mean population.

Since 1970 the absolute number of both brides and bridegrooms marrying for the first time has declined, the total for 1975 representing a marked decrease to a level which was maintained in 1976. However, over the period 1970 to 1975 the number of divorced persons remarrying rose substantially, bridegrooms by 65 per cent and brides by 66 per cent. Between 1975 and 1976 the increase in numbers of divorced persons re-marrying was 91.6 per cent for bridegrooms and 90.6 per cent for brides.

#### Age at Marriage and Previous Marital Status, South Australia, 1976

Age	Previous Marital Status							
	Bridegrooms				Brides			
	Bachelor	Widower	Divorced	Total	Spinster	Widow	Divorced	Total
Under 21 years .....	1 627	—	—	1 627	4 533	4	12	4 549
21-24 years .....	4 219	2	77	4 298	2 901	12	204	3 117
25-29 years .....	1 928	11	480	2 419	869	37	480	1 386
30-34 years .....	422	14	405	841	202	28	384	614
35-39 years .....	144	19	307	470	67	33	235	335
40-44 years .....	52	29	227	308	33	38	182	253
45 years and over.....	123	316	500	939	54	307	287	648
All ages.....	8 515	391	1 996	10 902	8 659	459	1 784	10 902



During 1976 the median age (that age at which one half of the total number of persons are below the age and the other half exceed it) of persons marrying for the first time was 23.2 years for bachelors and 20.9 years for spinsters, a difference of 2.3 years. The following table shows median ages for last five years of all persons marrying, classified by marital status at the time of marriage.

**Median Age at Marriage and Previous Marital Status, South Australia**

Year	Median Age of Bridegrooms (Years)				Median Age of Brides (Years)			
	Bachelor	Widower	Divorced	Total	Spinster	Widow	Divorced	Total
1972..	23.0	58.5	38.0	23.4	20.8	52.4	33.3	21.1
1973..	22.9	58.3	36.4	23.4	20.7	51.6	33.4	21.1
1974..	22.9	59.4	35.4	23.4	20.7	53.1	33.6	21.1
1975..	22.9	59.3	35.2	23.6	20.7	52.8	32.0	21.2
1976..	23.2	58.2	35.5	24.4	20.9	50.9	32.3	21.8

The following table highlights the tendency for brides to marry bridegrooms older than themselves. Although the age difference has narrowed over the past decade, this

phenomenon, together with the greater life expectancy of females compared to males as shown in the table on page 142, tends to perpetuate the predominance of aged widows over widowers within community and welfare institutions.

### Relative Age Differences of Parties to Marriage, South Australia

Elder Partner of Marriage	Number of Marriages			Proportion of Total Marriages		
	1974	1975	1976	1974	1975	1976
	Per cent					
<b>Bridegroom:</b>						
8 years or more .....	946	952	1 347	8.8	9.7	12.4
7 years .....	348	337	364	3.2	3.4	3.3
6 years .....	489	489	482	4.5	5.0	4.4
5 years .....	667	615	689	6.2	6.3	6.3
4 years .....	968	889	947	9.0	9.0	8.7
3 years .....	1 356	1 233	1 239	12.6	12.5	11.4
2 years .....	1 661	1 508	1 547	15.4	15.3	14.2
1 year .....	1 606	1 467	1 513	14.9	14.9	13.9
<b>Bride:</b>						
1 year .....	624	524	618	5.8	5.3	5.7
2 years .....	329	279	322	3.1	2.8	3.0
3 years .....	202	173	206	1.9	1.8	1.9
4 years .....	104	120	166	1.0	1.2	1.5
5 years or more .....	259	236	392	2.4	2.4	3.6
No age difference .....	1 210	1 021	1 070	11.2	10.4	9.8
<b>Total .....</b>	<b>10 769</b>	<b>9 843</b>	<b>10 902</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### MARRIAGE RITES

The number of marriages performed by civil officers in South Australia during the decade from 1960 to 1969 accounted for 10.9 per cent of all marriages but reached a record level of 30.3 per cent in 1976. The increase in civil ceremonies during the 1970s is evident from the following table, and can partly be accounted for by the improved facilities now provided at the office of the Principal Registrar of Births, Deaths and Marriages.

### Marriages: Marriage Rites, South Australia

Rites	Number of Authorised Celebrants January 1976	Number of Marriages			Proportion of Total Marriages		
		1974	1975	1976	1974	1975	1976
	Per cent						
<b>Denomination:</b>							
Baptist .....	70	260	234	289	2.4	2.4	2.7
Catholic .....	243	2 138	1 833	1 824	19.9	18.6	16.7
Church of England .....	200	1 796	1 587	1 468	16.7	16.1	13.5
Churches of Christ .....	66	289	263	278	2.7	2.7	2.5
Congregational .....	47	262	238	288	2.4	2.4	2.6
Lutheran .....	140	607	570	584	5.6	5.8	5.4
Methodist .....	211	2 240	1 934	2 083	20.8	19.6	19.1
Orthodox .....	20	164	148	166	1.5	1.5	1.5
Presbyterian .....	34	295	283	266	2.7	2.9	2.4
Salvation Army .....	38	68	55	57	0.6	0.6	0.5
Seventh Day Adventist .....	21	30	19	27	0.3	0.2	0.2
Other denominations .....	177	255	295	273	2.4	3.0	2.5
<b>Total .....</b>	<b>1 267</b>	<b>8 404</b>	<b>7 459</b>	<b>7 603</b>	<b>78.0</b>	<b>75.8</b>	<b>69.7</b>
<b>Civil Ceremonies .....</b>	<b>37</b>	<b>2 365</b>	<b>2 384</b>	<b>3 299</b>	<b>22.0</b>	<b>24.2</b>	<b>30.3</b>
<b>Grand Total .....</b>	<b>1 304</b>	<b>10 769</b>	<b>9 843</b>	<b>10 902</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## MARRIAGE OF MINORS

The *Marriage Act* 1961 stipulates the marriageable age to be eighteen years or over for a male and sixteen years or over for a female. Under exceptional circumstances a judge or magistrate can, upon application by a party who has not attained marriageable age but who is at least sixteen in the case of a male or fourteen in the case of a female, authorise him or her to marry a particular person who is of marriageable age.

Before 1 July 1973 prior consent had to be obtained from either both parents, one parent, a guardian or guardians, or other prescribed authority, according to the circumstances, where a party to a marriage was under twenty-one years. From 1 July 1973 the age of majority for purposes of the *Marriage Act* was reduced to eighteen years.

The proportion of persons marrying under 21 years of age has changed significantly since details were first recorded in 1903. In that year 2.7 per cent of males and 19.2 per cent of females marrying were under twenty-one years of age. Over the years the proportion of males has ranged from a low of 2.6 per cent in 1916 to a high of 18.3 per cent in 1974. The corresponding proportions for females were 14.7 and 49.3 per cent recorded in 1919 and 1974 respectively. These proportions fell in 1976 to 14.9 per cent for males and 41.7 per cent for females.

Figures relating to the marriages of persons under twenty-one years of age for the five years to 1976 are shown in the following table.

**Marriages of Persons Under 21 Years of Age, South Australia**

Year	Age in Years							Total Under 21	Percentage of Total Marriages
	Under 15	15	16	17	18	19	20		
<b>BRIDEGRROOMS</b>									
1972.....	—	—	8	26	241	524	1 002	1 801	16.6
1973.....	—	—	4	24	257	554	1 091	1 930	17.9
1974.....	—	—	7	27	282	567	1 085	1 968	18.3
1975.....	—	—	2	23	217	553	973	1 768	18.0
1976.....	—	—	7	17	198	480	925	1 627	14.9
<b>BRIDES</b>									
1972.....	1	15	221	514	1 077	1 578	1 780	5 186	47.9
1973.....	3	8	215	487	1 220	1 682	1 690	5 305	49.1
1974.....	1	12	195	463	1 249	1 635	1 757	5 312	49.3
1975.....	1	8	154	448	1 113	1 530	1 459	4 713	47.9
1976.....	—	8	141	343	1 083	1 410	1 564	4 549	41.7

## 6.8 DIVORCE

The Supreme Court of South Australia had exclusive jurisdiction in divorce under the *Matrimonial Causes Act*, 1858 from 1 January 1859. Uniform legislation throughout Australia on dissolution of marriage and other matrimonial causes was provided for under the *Matrimonial Causes Act* 1959 from 1 February 1961. Jurisdiction to hear and determine causes under the Act was vested in the Supreme Courts of the States and Territories. The South Australian Registry of the Family Court of Australia commenced operations under the *Family Law Act* 1975 on 5 January 1976. The Supreme Court had concurrent jurisdiction to deal with outstanding applications presented before that date, until 31 May 1976.

The jurisdiction of the Supreme Court provided for petitions for nullity of marriage, judicial separation, restitution of conjugal rights and jactitation of marriage in addition to the most common petition for dissolution of marriage (commonly known as divorce).

Fluctuations from year to year in the number of decrees granted and petitions filed may be independent of each other because of variations in the number of actions outstanding at the end of each year.

### Family Court (SA Registry)

Matrimonial causes within the jurisdiction of the Court include dissolution of marriage, maintenance, custody, property settlement, enforcement and injunction proceedings. The hearing of applications for dissolution commenced on 1 March 1976. The hearing of other matrimonial causes commenced earlier.

Under the provisions of the *Family Law Act* the sole ground for dissolution of marriage is irretrievable breakdown, established by twelve months separation. Prospective applicants are encouraged to seek help from marriage counsellors attached to the Family Court or from voluntary marriage guidance organisations.

Maintenance entitlement is determined largely by the needs of the applicant and the capacity of the respondent to pay. Any transfer or settlement of property is also taken into consideration.

In custody proceedings the welfare of the child is regarded as paramount. The Court can order that a child be separately represented in matters affecting his custody or maintenance. Both parties are considered liable for his maintenance according to their respective financial resources. If the proceedings are contested, both parties may be referred to a welfare officer, and the Court may then require a report on the child's circumstances.

In settling disputes over matrimonial property the Court takes into account any maintenance order and the effective contribution of each party to that property.

### Petitions Filed

Particulars of petitions filed during the five years to 1975 are shown in the following table. In each of these years petitions for dissolution lodged by wives outnumbered those lodged by husbands, a pattern which prevailed for over fifty years.

**Dissolution of Marriage and other Matrimonial Causes  
Petitions Filed, South Australia**

Year	Dissolution of Marriage			Nullity of Marriage	Judicial Separation	Total Petitions (a)
	By Husbands	By Wives	Total			
1971.....	622	1 026	1 648	5	9	1 668
1972.....	727	1 250	1 977	6	6	1 997
1973.....	809	1 326	2 135	7	12	2 159
1974.....	855	1 405	2 260	3	6	2 272
1975.....	697	1 226	1 923	5	2	1 930

(a) Includes petitions filed for dissolution or nullity; 1971, 2; 1972, 4; 1973, 5; 1974, 2 and petitions lodged for dissolution or judicial separation: 1971, 4; 1972, 4; 1974, 1.

In 1975 there were 1 923 petitions filed for dissolution of marriage compared with 2 260 in 1974 and 2 135 in 1973. This decrease possibly was attributable to the pending introduction (on 5 January 1976) of the *Family Law Act* 1975 which now provides a sole ground for dissolution of marriage—irretrievable breakdown, established by twelve months separation.

Preliminary figures for 1976 indicate that there were 6 260 decrees absolute for dissolution of marriage; of these, 4 853 were made under the *Matrimonial Causes Act* and 1 407 under the *Family Law Act*. Decrees absolute in 1977 were approximately 4 300. Under the *Family Law Act* the period before a decree *nisi* may become absolute is one month, whereas under the *Matrimonial Causes Act* the minimum period was three months.

### Decrees Granted

The following table shows the number of decrees absolute granted for dissolution and nullity of marriage and decrees granted for judicial separation. A further table shows details of the grounds on which final decrees have been granted for the years 1971 to 1975.

#### Dissolution of Marriage and other Matrimonial Causes Decrees Absolute Granted, South Australia

Period	Dissolution of Marriage			Nullity of Marriage	Judicial Separation
	To Husbands	To Wives	Total		
<b>Annual Average:</b>					
1951-55 .....	262.8	350.0	612.8	4.6	1.2
1956-60 .....	244.2	294.2	538.4	7.6	1.6
1961-65 .....	334.6	446.8	781.4	4.6	0.6
1966-70 .....	363.8	599.2	963.0	5.8	1.8
1971-75 .....	568.0	922.8	1 490.8	5.2	1.8
<b>Year:</b>					
1971 .....	473	791	1 264	8	3
1972 .....	479	756	1 235	4	2
1973 .....	585	997	1 582	6	—
1974 .....	605	956	1 561	4	1
1975 .....	698	1 114	1 812	4	3

#### Dissolution of Marriage: Grounds on which Final Decrees were Granted South Australia

Ground	1971	1972	1973	1974	1975		
					To Husband	To Wife	Total
DISSOLUTION OF MARRIAGE							
<b>Single grounds:</b>							
Desertion .....	437	430	489	515	216	381	597
Adultery .....	446	459	634	641	392	408	800
Separation .....	160	149	182	171	79	103	182
Cruelty .....	174	161	237	196	5	184	189
Drunkenness .....	27	18	22	26	2	16	18
Other single grounds .....	4	2	5	3	2	6	8
<b>Dual grounds:</b>							
Desertion and;							
Adultery .....	2	2	4	—	1	2	3
Separation .....	3	2	1	2	1	3	4
Cruelty .....	1	—	1	2	—	1	1
Drunkenness .....	—	1	1	—	—	—	—
Cruelty and;							
Drunkenness .....	9	11	5	5	—	10	10
Drug intoxication .....	1	—	—	—	—	—	—
Other dual grounds .....	—	—	1	—	—	—	—
<b>Total</b> .....	<b>1 264</b>	<b>1 235</b>	<b>1 582</b>	<b>1 561</b>	<b>698</b>	<b>1 114</b>	<b>1 812</b>

**Dissolution of Marriage: Grounds on which Final Decrees were Granted  
South Australia (continued)**

Ground	1971	1972	1973	1974	1975		
					To Husband	To Wife	Total
NULLITY OF MARRIAGE							
Bigamy	3	1	1	—	—	—	—
Invalid marriage	1	1	—	1	—	—	—
Incapacity to consummate	3	1	5	3	1	2	3
Pregnancy	1	—	—	—	1	—	1
<b>Total</b>	<b>8</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>4</b>
JUDICIAL SEPARATION							
Adultery	1	1	—	—	—	1	1
Cruelty	2	1	—	1	—	1	1
Other grounds	—	—	—	—	—	1	1
<b>Total</b>	<b>3</b>	<b>2</b>	<b>—</b>	<b>1</b>	<b>—</b>	<b>3</b>	<b>3</b>
ALL DECREES							
<b>Total</b>	<b>1 275</b>	<b>1 240</b>	<b>1 588</b>	<b>1 566</b>	<b>700</b>	<b>1 119</b>	<b>1 819</b>

Details of the relative ages at marriage of husbands and wives for marriages dissolved in 1975 are contained in the following table.

**Dissolution of Marriage: Decrees Absolute, Ages of Parties at Time of Marriage, South Australia, 1975**

Age of Husband at Marriage	Age of Wife at Marriage								Total Husbands
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and Over	Not Stated	
Under 20	197	40	1	1	—	—	—	—	239
20-24	460	513	40	7	2	—	—	1	1 023
25-29	73	188	46	11	6	1	—	—	325
30-34	10	42	27	13	3	1	—	1	97
35-39	6	11	15	10	11	6	4	—	63
40-44	1	2	4	8	5	3	1	—	24
45 and over	1	1	5	2	4	7	18	—	38
Not stated	—	—	—	—	—	—	—	3	3
<b>Total wives</b>	<b>748</b>	<b>797</b>	<b>138</b>	<b>52</b>	<b>31</b>	<b>18</b>	<b>23</b>	<b>5</b>	<b>1 812</b>

The following table shows the duration of marriage, i.e. the interval between marriage and the date the decree was made absolute, for marriages dissolved during the five years to 1975.

**Dissolution of Marriage: Decrees Absolute, Duration of Marriage  
South Australia**

Year	Duration of Marriage (Years)									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	
1971	108	380	247	185	169	100	54	11	10	1 264
1972	137	380	228	158	159	100	53	13	7	1 235
1973	175	507	313	217	176	114	50	23	7	1 582
1974	150	523	325	213	149	118	51	20	12	1 561
1975	162	602	384	263	179	123	63	26	10	1 812

For marriages dissolved in 1975 the following table shows the relative ages of husbands and wives at the time of dissolution.

**Dissolution of Marriage: Decrees Absolute, Ages of Parties at Time of Dissolution, South Australia, 1975**

Age of Husband at Dissolution	Age of Wife at Dissolution							Not Stated	Total Husbands
	Under 25	25-29	30-34	35-39	40-44	45-49	50 and Over		
Under 25 .....	85	12	—	—	—	—	—	—	97
25-29 .....	132	265	25	2	—	—	—	—	424
30-34 .....	10	158	163	9	3	1	—	1	345
35-39 .....	—	33	118	112	13	5	—	—	281
40-44 .....	1	4	19	98	62	14	7	—	205
45-49 .....	—	3	14	32	58	64	18	—	189
50 and over .....	—	—	2	14	17	62	172	1	268
Not stated .....	—	—	—	—	—	—	—	3	3
Total wives .....	228	475	341	267	153	146	197	5	1 812

Information collected for petitions filed covers living 'children of the marriage' under twenty-one years of age, which, as defined in the Matrimonial Causes Act, includes also adopted children, children of the husband and wife born before marriage and children of either the husband or the wife if members of the household.

**Dissolution of Marriage: Decrees Absolute  
Duration of Marriage and Number of Children of the Marriage  
South Australia, 1975<sup>(a)</sup>**

Duration of Marriage (Years)	Marriages Dissolved With							Total Dissolutions	Total Children
	No Children	1 Child	2 Children	3 Children	4 Children	5 Children	6 or more Children		
Under 5 .....	108	44	8	2	—	—	—	162	66
5-9 .....	217	201	139	30	12	2	1	602	633
10-14 .....	38	69	168	84	19	5	1	384	767
15-19 .....	24	25	85	68	43	12	6	263	671
20-24 .....	13	23	45	43	30	19	6	179	497
25-29 .....	43	39	23	10	4	4	—	123	151
30-34 .....	36	18	7	1	1	—	—	63	39
35 and over .....	26	3	6	1	—	—	—	36	18
Total dissolutions	505	422	481	239	109	42	14	1 812	..
Total children ..	—	422	962	717	436	210	95	..	2 842

(a) Number of children living and under 21 years at time of petition.

**Dissolution of Marriage: Decrees Absolute, Children of the Marriage  
South Australia<sup>(a)</sup>**

Year	Number of Marriages Dissolved With							Total Dissolutions	Total Children
	No Children	1 Child	2 Children	3 Children	4 Children	5 Children	6 or more Children		
1971 .....	329	305	314	171	86	42	17	1 264	2 116
1972 .....	349	301	293	172	78	26	16	1 235	1 949
1973 .....	464	366	416	212	78	27	19	1 582	2 408
1974 .....	449	383	418	198	73	27	13	1 561	2 324
1975 .....	505	422	481	239	109	42	14	1 812	2 842

(a) Number of children living and under 21 years at time of petition.



**PART 7**

**LABOUR**

**7.1 EMPLOYMENT**

**THE LABOUR FORCE**

Particulars of the number of persons who constitute the labour force in South Australia are available from periodic population censuses. For the 1966 Census the definition of the labour force was revised to accord with the recommendations of the Eighth International Conference of Labour Statisticians, and the revised approach has been retained for subsequent Censuses. The major factor in this change was the inclusion of a number of females working part-time who did not previously consider themselves as 'engaged in an industry, business, profession, trade or service'.

Detailed tables on the population classified by occupational status and the employed population classified by occupation and by industry at the 1966 and 1971 Censuses was included on pages 360-1 of the *South Australian Year Book 1977*.

Labour force information collected in the 1976 Census is not yet available.

**Labour Force Survey**

In addition to complete census counts, estimates of the civilian labour force are prepared from the results of surveys conducted at a sample of dwellings throughout Australia. These surveys began in 1960 on a quarterly basis and were initially confined to

the six State capital cities, but in 1964 were extended to include non-metropolitan urban and rural areas, thereby enabling derivation of estimates of the total civilian labour force in Australia. From February 1978, the surveys are conducted on a monthly basis. The proportion of the population included in the surveys varies from State to State (1 per cent in South Australia) but in aggregate about 0.67 per cent of the Australian population is included.

Statistics obtained from the surveys include numbers employed and unemployed; labour force participation and unemployment rates; duration of unemployment; analyses of reasons for working less than 35 hours per week; as well as age, sex, occupation and industry characteristics.

The following table shows, for South Australia, quarterly estimates of the employment status of the civilian population fifteen years of age and over from February 1976 to November 1977, based on the 1971 Census.

**Civilian Population 15 Years of Age and Over, Employment Status  
South Australia**

Month	In Labour Force				Not in Labour Force	Civilian Popu- lation Aged 15 years and Over	
	Employed		Un- employed	Total			
	Agric- ulture	Other Industries					
MALES ('000)							
1976 Feb. ....	33.5	322.4	355.9	11.3	367.2	81.6	448.8
May. ....	32.2	320.7	352.9	10.5	363.4	86.6	450.0
Aug. ....	32.1	320.8	352.9	9.9	362.7	88.5	451.2
Nov. ....	32.1	323.1	355.2	10.5	365.7	87.6	453.3
1977 Feb. ....	30.7	324.4	355.1	14.3	369.4	85.7	455.1
May. ....	31.0	322.7	353.7	14.3	368.0	88.5	456.5
Aug. ....	31.9	318.8	350.8	17.8	368.5	89.9	458.4
Nov. ....	31.2	319.1	350.3	17.4	367.7	93.2	460.9
FEMALES ('000)							
1976 Feb. ....	8.2	187.3	195.5	11.7	207.1	254.1	461.2
May. ....	6.7	187.8	194.5	8.2	202.6	259.8	462.4
Aug. ....	8.7	184.5	193.2	9.3	202.5	261.5	464.0
Nov. ....	8.0	187.6	195.6	10.8	206.4	260.7	467.1
1977 Feb. ....	8.2	188.9	197.1	14.4	211.5	256.7	468.2
May. ....	7.9	190.1	198.1	13.2	211.3	258.3	469.6
Aug. ....	9.2	189.6	198.8	12.6	211.4	261.6	473.0
Nov. ....	9.9	186.5	196.5	12.2	208.7	267.1	475.7
PERSONS ('000)							
1976 Feb. ....	41.6	509.7	551.4	23.0	574.4	335.6	910.0
May. ....	38.9	508.5	547.5	18.7	566.1	346.4	912.4
Aug. ....	40.8	505.3	546.0	19.2	565.2	350.0	915.2
Nov. ....	40.1	510.7	550.8	21.2	572.1	348.3	920.4
1977 Feb. ....	38.9	513.3	552.2	28.7	580.9	342.4	923.3
May. ....	38.9	512.9	551.8	27.5	579.3	346.8	926.1
Aug. ....	41.1	508.5	549.6	30.4	579.9	351.4	931.4
Nov. ....	41.2	505.6	546.8	29.6	576.4	360.2	936.6

Since the estimates are based on a sample, they may differ from the figures that would have been obtained from a complete census using the same questionnaire and procedures. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample and not the whole population was enumerated. The smaller the estimate the higher is the relative standard error. For example, the relative standard error of an estimate for South Australia of 500 000 persons is approximately 0.6 per cent (3 200), while that of an estimate of 3 000 is approximately 16 per cent (500). There are about two chances in three that a sample estimate will differ by less than one standard error from the figures that would have been obtained from a comparable complete enumeration, and about nineteen chances in twenty that the difference will be less than two standard errors. Further details may be obtained from bulletins relating to the surveys which are discussed in the following pages.

Estimates for the period from August 1966 have been revised using the results of the 1971 Census rather than those of the 1966 Census used in earlier estimates. This has resulted in a small reduction in the size of estimates of the labour force.

The definition of the labour force used in the Population Census is similar to that used in the survey. However, evidence from census post-enumeration surveys indicates that the personal interview approach as used in the labour force survey, tends to identify a larger number of persons as being in the labour force than does the filling in of the questions on the census schedule by the householder, and that this tendency increased between the 1966 and 1971 Censuses. These considerations should be borne in mind when comparisons of the total labour force or labour force participation rates are made between the 1966 and 1971 Censuses, or between the 1971 Census and the 1971 labour force estimates.

Further details may be obtained from the following bulletins issued monthly by the Australian Statistician: *Unemployment, Preliminary Estimates* (Catalogue No. 6201.0); *The Labour Force (Preliminary)* (Catalogue No. 6202.0); *The Labour Force* (Catalogue No. 6203.0).

### Special Studies

The sample of dwellings referred to in respect of the Labour Force Survey has provided the framework for a number of special studies. These have recently included: information on post-school study and adult education; school leavers; the nature and extent of multiple jobholding; the distribution of weekly earnings of wage and salary earners; information on persons not in the labour force; information about persons who had recently been looking for work; the frequency of pay of wage and salary earners; information about changes of employment or job location and other aspects of the mobility of the labour force. Brief summaries of some of these studies are given in the following pages.

Since the estimates provided in these studies are based on sample surveys they are subject to sampling error, the magnitude of which is described in some detail in the bulletins for each topic published by the Australian Statistician.

#### *School Leavers*

In August 1977, a survey was conducted in conjunction with the Labour Force Survey in order to obtain, among other things, information about persons aged 15 to 25 years who had attended full-time at a school, university or other educational institution at some time during 1976. Separate information was obtained in respect of persons who had returned to full-time education in 1977 and those who had not returned to full-time education. The latter group was defined as being school leavers.

The number of school leavers who entered the labour force expressed as a percentage of total leavers describes their labour force participation rates. This rate for South Australian

males in August 1977 was 97.4 compared with the national rate of 97.8 while the equivalent rate for females was 96.5 in this State and 94.3 for Australia.

Detailed results of this survey and other similar surveys carried out in February of each year from 1964 to 1974 and in May 1975 and 1976 may be obtained from bulletins entitled *Leavers from Schools, Universities or other Educational Institutions* (Catalogue No. 6227.0) published by the Australian Statistician.

### Multiple Jobholding

In August 1977 the Labour Force Survey was extended to obtain information about the nature and extent of multiple jobholding. Results show that an estimated 170 100 persons, or 2.7 per cent of the total Australian labour force stated that they held more than one job in August 1977. In August 1975 when a similar survey was held, the corresponding figure was 197 100 or 3.3 per cent of the total labour force.

The following table shows by State and for Australia the proportion of persons in the labour force who held a second job.

**Multiple Jobholders: Proportion of Persons in the Labour Force who Held a Second Job, by Marital Status, August 1977<sup>(a)</sup>**

Multiple Jobholders	NSW	Vic.	Qld	SA	WA	Tas.	ACT	Australia (b)
	Per cent							
<b>Males:</b>								
Married .....	3.5	3.1	3.1	4.9	3.6	4.9	4.5	3.5
Not married (c) .....	2.2	1.9	(d)	3.7	3.3	(d)	(d)	2.1
Total .....	3.1	2.7	2.4	4.6	3.5	3.9	3.7	3.1
<b>Females:</b>								
Married .....	2.2	2.2	2.3	3.2	3.0	(d)	(d)	2.4
Not married (c) .....	1.4	(d)	(d)	3.6	(d)	(d)	(d)	1.8
Total .....	1.9	1.8	2.1	3.4	3.0	(d)	(d)	2.1
<b>Persons:</b>								
Married .....	3.1	2.8	2.8	4.3	3.4	3.9	3.5	3.1
Not married (c) .....	1.9	1.6	1.4	3.6	3.1	(d)	(d)	2.0
Total .....	2.7	2.4	2.3	4.1	3.3	3.0	2.9	2.7

(a) Multiple jobholders in each group as a percentage of the civilian labour force in the same group.

(b) Includes the Northern Territory.

(c) Never married, widowed and divorced.

(d) Subject to sampling variability too high for most practical purposes.

Further details may be obtained from the bulletin *Multiple Jobholding, August 1977* (Catalogue No. 6216.0), published by the Australian Statistician.

### Persons Not in the Labour Force

In May 1977, the Labour Force Survey included questions to obtain information about persons aged 15 to 64 years who were not in the labour force: in particular, their intentions regarding entering or re-entering the labour force, whether they had ever held a regular job and, if so, how long ago and for what reason they had left it, and their educational qualifications.

The following table shows for persons not in the labour force, who would or might like a job, the reason for not looking for work. It excludes persons who were looking for work in

the survey week but had not taken active steps to find a job and others who had been looking for work in the three weeks before the survey week.

**Persons Aged 15 to 64 Years Not in the Labour Force who Would or Might Like a Job  
Reason for Not Looking for Work, May 1977<sup>(a)</sup>**

Reason for Not Looking for Work	NSW	Vic.	Old	SA	WA	Tas.	Australia (b)
	MALES ('000)						
Own ill health or physical disability .....	6.6	(c)	3.8	(c)	(c)	(c)	17.2
Attending an educational institution .....	18.0	14.9	5.3	4.8	5.8	(c)	50.9
Total males (d) .....	35.2	24.1	14.0	9.1	9.6	2.0	95.9
	FEMALES ('000)						
Own ill health, physical disability or pregnancy .....	18.0	13.9	6.7	3.4	3.0	1.6	47.4
Attending an educational institution .....	22.7	12.9	5.5	6.0	5.2	(c)	54.7
Has no need to work .....	18.4	10.2	7.8	4.1	4.2	(c)	46.0
Family considerations (e): .....	73.2	54.9	30.9	16.2	15.8	5.4	200.8
Unable to find child care .....	8.7	5.6	3.3	(c)	2.0	(c)	21.7
Preferred to look after children .....	46.0	33.0	19.3	10.2	9.7	3.3	123.8
Discouraged (f): .....	23.1	12.8	10.3	5.0	3.7	1.8	57.8
No jobs in locality or line of work .....	17.6	9.8	8.5	2.8	2.1	(c)	42.9
No jobs in suitable hours .....	7.9	(c)	(c)	(c)	(c)	(c)	15.2
Other (g) .....	10.6	7.5	3.3	(c)	2.2	(c)	28.1
Total females .....	174.0	115.8	65.3	37.7	35.4	12.3	450.0

(a) Highest-ranked reason only.

(b) Includes NT and ACT.

(c) Subject to sampling variability too high for most practical purposes.

(d) Includes all other reasons.

(e) Includes 'ill health of other than self', 'spouse disapproved' and 'other family considerations'.

(f) Defined as persons who wanted a job but were not looking for work because of any of the following reasons: considered too young or too old by employers; language or racial difficulties; lacked necessary training, skills or experience.

(g) Includes persons who had a job to go to.

Of the 95 900 males who would or might like a job 66.6 per cent stated they intended to look for work in the next twelve months, 12.3 per cent stated they might look for work, 14.9 per cent stated they would not look for work and 6.2 per cent stated they either already had a job to go to or that they did not know whether they would look for work. Of the 450 000 females not looking for work the corresponding figures were 38.7 per cent, 19.1 per cent, 34.2 per cent and 8.0 per cent.

More details from the May 1977 Survey have been published in the bulletin *Persons Not in the Labour Force* (Catalogue No. 6220.0) published by the Australian Statistician.

**Persons Looking for Work**

In May 1977 a survey, based on the Labour Force Survey, was conducted throughout Australia in order to obtain information about persons who had recently been looking for work, including particulars of their last job, difficulties experienced in finding a job, family status, and duration of last job.

The following table shows for various age groups the main difficulty in finding work. (Similar surveys were conducted in May 1976 and November 1976). In May 1977, 16.5 per cent reported that their main difficulty in finding a job was that there were no vacancies in their line of work (17.8 per cent in November 1976); a further 28.3 per cent reported that there were no vacancies at all (30.9 per cent in November 1976) while 10.8 per cent were considered by employers to be too young or too old (9.5 per cent in November 1976).

**Persons Looking for Work: Main Difficulty in Finding Work by Age  
May 1977, Australia<sup>(a)</sup>**

Main Difficulty in Finding Work	Age Group (Years)				Total Over
	15-19	20-24	25-34	35 and	
			'000		
Own ill health or handicap	(c)	(c)	(c)	9.5	15.4
Considered by employers to be too young or too old	9.3	5.4	(c)	13.8	29.8
Unsuitable hours	3.3	3.7	3.8	3.5	14.3
Too far to travel/transport problems	9.1	3.6	4.0	3.3	19.9
Lacked necessary education, training or skills	13.2	5.7	3.4	(c)	24.3
Insufficient work experience	18.1	7.9	(c)	(c)	30.7
No vacancies in line of work	12.1	10.9	14.2	13.8	51.0
No vacancies at all	38.7	16.7	14.7	24.3	94.4
Other difficulties <sup>(b)</sup>	(c)	3.4	4.3	5.3	14.6
No difficulties reported	4.9	3.4	(c)	5.1	16.2
<b>Total</b>	<b>112.9</b>	<b>62.6</b>	<b>52.7</b>	<b>82.4</b>	<b>310.6</b>

(a) For this survey persons looking for work were defined as all civilians aged 15 years and over who during survey week did not work and did not have a job, but could have taken one had it been available, and had been actively looking for full-time or part-time work in the four weeks up to and including the survey week.

(b) Includes about 5 000 persons whose main difficulty was language problems or discrimination against migrant or racial groups.

(c) Subject to sampling variability too high for most practical purposes.

More details from the May 1977 survey have been published in the bulletin *Persons Looking for Work* (Catalogue No. 6222.0) published by the Australian Statistician.

### *Labour Mobility*

A sample survey was conducted in February 1976 to obtain information about some aspects of the mobility of the labour force, e.g. the number of different employers for whom employees had worked during 1975 or the number of different businesses in which employers and self-employed persons had been engaged.

A summary of results for Australia indicates that:

- (1) 86.1 per cent of males and 87.3 per cent of females employed at the end of 1975 had not changed their employer or business during the year;
- (2) 10.6 per cent of males and 10.5 per cent of females had made one change;
- (3) 3.3 per cent of males and 2.2 per cent of females had changed at least twice;
- (4) for males the highest portion with more than one employer or business occurred among sales workers (19.0 per cent). For females the highest proportion (13.9 per cent) was recorded for clerical workers and service, sport and recreation workers.

Further information is available in the bulletin *Labour Mobility*, February 1976 (Catalogue No. 6209.0) published by the Australian Statistician.

*Job Tenure*

In August 1976 a survey based on the Labour Force Survey was conducted throughout Australia to classify estimates of employed persons according to the length of time they had been in the job held in August 1976.

The following table shows that in August 1976 approximately 22 per cent of males and 33 per cent of females had been in their current jobs for less than a year, while half of the males and one quarter of the females had been in their current jobs for five years or more.

**Employed Wage and Salary Earners: Duration of Current Job  
South Australia, August 1976**

Duration of Current Job	Males	Females		All Persons
		Married Women	Total (Including Other)	
		Per cent		
Under 3 months .....	8.9	11.6	12.4	10.1
3 months and under 6 months .....	4.6	6.6	7.9	5.9
6 months and under 1 year .....	8.8	9.9	12.2	10.1
<b>Total under 1 year .....</b>	<b>22.3</b>	<b>28.2</b>	<b>32.5</b>	<b>26.1</b>
1 year and under 2 years .....	9.9	14.2	14.4	11.6
2 years and under 3 years .....	9.3	14.1	13.6	10.9
3 years and under 4 years .....	7.2	8.5	9.2	8.0
4 years and under 5 years .....	5.2	8.2	6.4	5.6
5 years and under 10 years .....	18.0	18.8	16.0	17.2
10 years and under 15 years .....	10.5	4.5	3.9	8.0
15 years and over .....	17.6	3.4	4.1	12.5
<b>Total .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Further information may be obtained in the bulletin *Job Tenure*, August 1976 (Catalogue No. 6211.0) published by the Australian Statistician.

### WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT

Details of the number of wage and salary earners in civilian employment other than at census dates are available from periodic estimates. These estimates, which exclude employees in agriculture and private domestic service, are based on information obtained at population censuses, known as bench-marks, and adjustments to these bench-marks are made from certain current information.

An industry distribution of wage and salary earners derived from these estimates is presented in the bar chart on page 307. The industry classification used in this chart, and in the following table is the Australian Standard Industrial Classification (ASIC). This industrial classification is not directly comparable with those adopted for population censuses before 1971. 'Manufacturing' includes employees of manufacturing enterprises who are not directly associated with the productive process, such as sales and distribution personnel. The category 'community services' covers employees in education, health, welfare and other community services while the category 'other' includes employees in mining, electricity, gas and water, public administration and entertainment, restaurants, hotels and personal services.

**Wage and Salary Earners in Civilian Employment, South Australia<sup>(a)</sup>**

June	Manufacturing	Construction	Transport, Storage and Communication	Wholesale and Retail Trade	Finance, Insurance, Real Estate and Business Services	Community Services	Total Employment (Incl. Other)
MALES ('000)							
1973.....	94.4	33.5	23.4	48.2	14.6	26.4	270.5
1974.....	96.6	32.6	24.1	50.6	15.8	28.1	278.4
1975.....	89.4	36.2	24.5	50.6	15.7	29.8	278.3
1976.....	89.0	33.5	24.2	52.5	15.6	31.7	278.5
1977.....	86.2	33.0	23.9	51.7	15.8	33.0	275.5
FEMALES ('000)							
1973.....	27.4	1.4	4.9	36.5	12.8	42.9	145.9
1974.....	30.5	1.4	5.2	39.5	13.8	48.2	161.0
1975.....	25.7	1.5	5.4	38.0	13.4	51.3	159.5
1976.....	26.2	1.6	5.2	40.1	13.7	55.5	166.5
1977.....	24.8	1.7	5.2	40.3	14.0	57.9	168.8
PERSONS ('000)							
1973.....	121.8	34.9	28.3	84.7	27.4	69.3	416.4
1974.....	127.1	34.0	29.3	90.1	29.6	76.3	439.4
1975.....	115.1	37.7	29.9	88.6	29.1	81.1	437.8
1976.....	115.2	35.1	29.4	92.6	29.3	87.2	445.0
1977.....	111.0	34.7	29.1	92.0	29.8	90.9	444.3

(a) Excludes employees in agriculture, private domestic service and defence forces.

The following table shows the distribution of wage and salary earners at June 1976 and June 1977 by class of employer.

**Wage and Salary Earners in Civilian Employment: Class of Employer, South Australia<sup>(a)</sup>**

Class of Employer	June 1976			June 1977		
	Males	Females	Persons	Males	Females	Persons
Private .....	187.0	112.9	299.8	182.6	112.7	295.3
Government:						
Commonwealth .....	24.5	7.5	32.0	24.2	7.5	31.7
State .....	61.2	45.1	106.3	63.0	47.5	110.4
Local .....	5.8	1.0	6.8	5.7	1.1	6.9
Total government .....	91.5	53.6	145.2	92.9	56.1	149.0
Total employment.....	278.5	166.5	445.0	275.5	168.8	444.3

(a) Excludes employees in agriculture, private domestic service and defence forces.

The government sector (government departments, local government authorities, public corporations and public trading and financial enterprises) employs 33 per cent of total civilian wage and salary earners.

Further information on employment in specific sectors such as factories, agriculture, the building industry, etc. is found in the relevant sections of this Year Book.

## UNEMPLOYMENT

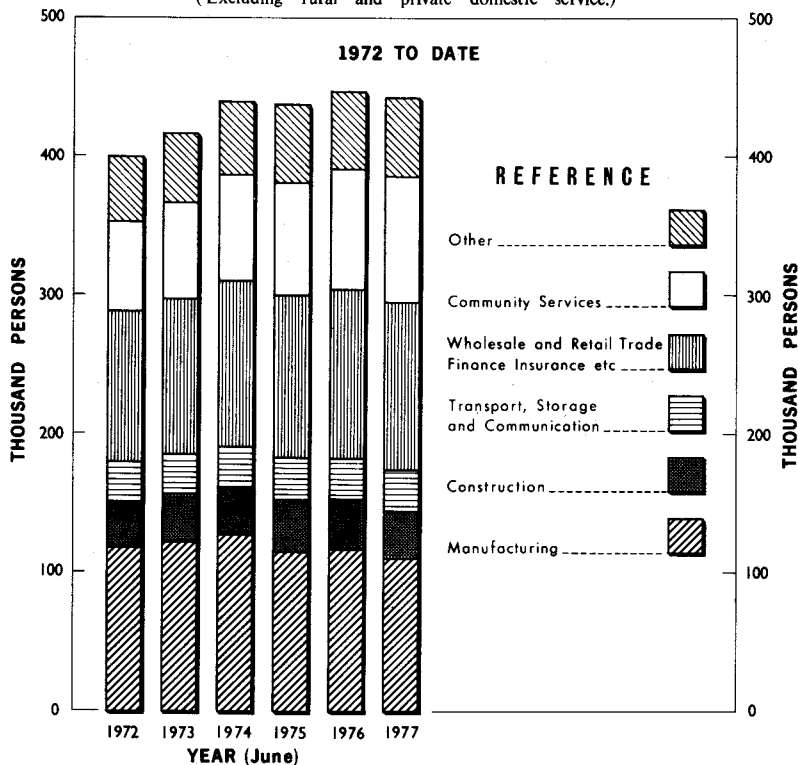
### Labour Force Surveys

Estimates of unemployment are derived from the monthly population survey. Until February 1978, surveys were conducted quarterly in February, May, August and November each year.



## CIVILIAN EMPLOYEES

(Excluding rural and private domestic service.)



For the purpose of the survey, unemployed persons are those aged 15 years and over who were not employed during the survey week and:

- (a) had actively looked for full-time or part-time work at any time in the four weeks up to the end of the survey week and;
- (i) were available for work in the survey week, or would have been available except for temporary illness (*i.e.* lasting for less than four weeks to the end of the survey week); or
  - (ii) were waiting to start a new job within four weeks from the end of the survey week and would have started in the survey week if the job had been available then; or
- (b) were waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks up to the end of the survey week (including the whole of the survey week) for reasons other than bad weather or plant breakdown.

With the change to the monthly population survey, the collection was based on a new sample selected in order to reflect changes in the distribution of the population shown by the 1976 Population Census results. The questionnaire was also revised, to provide more accurate and detailed information concerning the labour force.

Because the estimates are based on information obtained from occupants of a sample of dwellings they, and the movements derived from them, are subject to sampling variability, *i.e.* they may differ from the figures that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included in the survey. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors.

The following table contains estimates of the number of unemployed persons in South Australia and the corresponding unemployment rates, and the standard errors of each estimate.

### Unemployed Persons, South Australia

Particulars	Month			Standard Error		
	Nov. 1977	Feb. 1978	Mar. 1978	Feb. 1978	Mar. 1978	Feb. to
	(a)			Estimate	Estimate	March movement
	NUMBER ('000)					
Looking for full-time work:						
Aged 15-19 years .....	11.9	15.7	13.0	0.9	0.9	0.9
Aged 20 years and over .....	17.3	22.0	19.4	1.0	1.0	1.0
Total .....	29.2	37.7	32.4	1.2	1.2	1.2
Looking for part-time work .....	7.6	7.7	6.6	0.7	0.7	0.8
Total .....	36.8	45.4	39.0	1.3	1.3	1.2
	UNEMPLOYMENT RATE (b)					
Looking for full-time work:						
Aged 15-19 years .....	18.6	22.0	18.2	1.3	1.3	1.3
Aged 20 years and over .....	3.9	5.1	4.5	0.2	0.2	0.2
Total .....	5.8	7.5	6.4	0.2	0.2	0.2
Looking for part-time work .....	7.3	7.8	6.8	0.7	0.7	0.8
Total .....	6.1	7.6	6.5	0.2	0.2	0.2

(a) When comparing unemployment estimates for February 1978 with those for earlier periods it should be noted that with the introduction of monthly surveys the interviews are now conducted during a two week period, whereas formerly the period was four weeks.

(b) The unemployment rate is the number of unemployed in each group as a percentage of the estimated labour force (*i.e.* employed plus unemployed) in the same group.

Further details may be obtained from the following bulletins issued by the Australian Statistician: *Unemployment, Preliminary Estimates* (Catalogue No. 6201.0); *The Labour Force (Preliminary)* (Catalogue No. 6202.0); and *The Labour Force* (Catalogue No. 6203.0)

### EMPLOYMENT SERVICES

The Commonwealth Employment Service, administered by the Department of Employment and Industrial Relations, commenced operations in South Australia in May 1946. The main function of the Employment Service are to assist people seeking

employment to obtain positions best suited to their training, experience, abilities and qualifications; and to assist employers seeking labour to obtain employees best suited to the demands of the employers' particular class of work.

Further details concerning the operations of the Commonwealth Employment Service may be found in the *Official Year Book of Australia* No. 61, 1975-76.

The Department of Employment and Industrial Relations is also responsible for the administration of three schemes offering financial assistance to employers to recruit and train new staff. The National Employment and Training system (NEAT) is a vocational training scheme designed to assist persons whose employment prospects would be enhanced by training. Further information on the NEAT scheme is contained in Part 6.2 Education. The Special Youth Employment and Training Programme (SYETP) is specifically designed to encourage employment of people under 25 years of age. The Commonwealth Rebate for Apprentice Full-time Training (CRAFT) scheme offers tax free rebates to offset the cost of time lost in formal off-the-job training to firms taking on apprentices.

The State Government has two major programs designed to alleviate unemployment in South Australia. A Youth Work Unit was established in 1976 to help school leavers and other unemployed young people to find jobs by co-ordinating the education and job-finding capacities of Commonwealth and State Government departments with existing community welfare bodies and voluntary agencies. The State Unemployment Relief Scheme, administered by the Department of Labour and Industry, began operating at the end of 1975, providing employment opportunities throughout the State by initiating specific projects in the community. The activities of the scheme were substantially escalated during 1977.

There are also a number of private employment agencies, all of which are required to register with the Department of Labour and Industry. At 31 December 1976 there were thirty-seven such agencies registered.

## 7.2 ARBITRATION AND INDUSTRIAL ORGANISATIONS

### INDUSTRIAL ARBITRATION

In Australia a unique system of conciliation and arbitration by Government-established tribunals has been developed, with the Commonwealth and the State Parliaments each passing their own industrial legislation.

Under Section 51 of the Constitution, the Commonwealth Parliament may make laws in relation to 'conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State'. In addition the Parliament may legislate under certain industrial powers for the stevedoring industry, the maritime industry, the Commonwealth Public Service, certain national projects, the Snowy Mountains Area and flight crew officers. Federal arbitration is binding only on the parties to a dispute and decisions need not be of general application to an industry.

Employees not specifically covered by Federal awards are subject to State industrial jurisdiction, but where an award or determination of a State industrial tribunal is in conflict with an award of a Federal tribunal, the latter prevails.

#### Federal Industrial Tribunals

Before 1956 a Court of Conciliation and Arbitration was responsible for the prevention and settlement of industrial disputes extending beyond the limits of any one State. In that year substantial amendments were made to the Conciliation and Arbitration Act separating the judicial and arbitral functions of the Court by the establishment of the Australian Industrial Court and the Australian Conciliation and Arbitration Commission.

In February 1977 a further change was made when the jurisdiction exercised by the Industrial Court was transferred to the Industrial Division of the Federal Court of Australia.

The Conciliation and Arbitration Commission comprises a President and as many Deputy Presidents and Commissioners as are necessary.

The Commission carries out its functions of conciliation and arbitration through panels or task forces. The President assigns an industry or a group of industries to a panel consisting of a Presidential Member and one or more Commissioners.

Certain matters cannot be determined by a single member of the Commission. Those matters which must be determined by a Full Bench of the Commission, consisting of a number of Presidential Members and Commissioners, include standard hours, national wage cases, equal pay principles, annual leave and long service leave.

The jurisdiction of the Commission is limited to conciliation and arbitration of interstate industrial disputes between employers and employees. The employees must be engaged in employment that is 'industrial' in nature.

### **State Industrial Tribunals**

The South Australian legislation governing State intervention in industrial relations is the Industrial Conciliation and Arbitration Act, 1972-1975, the principal Act having come into operation on 1 January 1973. This Act, which made various changes in the existing industrial law provides for:

- (1) an Industrial Court which deals with matters of law and hears claims for recovery of money payable under awards or agreements;
- (2) an Industrial Commission which makes awards covering workers not under the jurisdiction of Conciliation Committees; and
- (3) Conciliation Committees which make or vary awards for an industry or area of the State in relation to which each Committee is appointed.

The Commission is composed of a President, two Deputy Presidents and Commissioners. Arbitral functions of the Commission may be exercised by a presidential member or a Commissioner as directed by the President. The Commissioners are chairmen of conciliation committees consisting of an equal number of representatives of employers and employees. Conciliation committees have the same jurisdiction in industrial matters as the Commission. If the process of conciliation before a committee fails then the Chairman sits as a Commissioner to determine the unresolved matters.

The President and Deputy Presidents of the Industrial Court are the President and Deputy Presidents, respectively, of the Commission. Proceedings before the Industrial Commission may be commenced by an application submitted by:

- (1) the Minister of Labour and Industry;
- (2) an employer, or group or registered association of employers in an industry employing, in the aggregate, not less than twenty employees or 75 per cent of the employees in the industry, whichever is the lesser;
- (3) a group or registered association consisting of not less than twenty employees or 75 per cent of the employees within an industry, whichever is the lesser.

At the end of December 1976, there were seven associations of employers and seventy-two associations of employees registered with the Industrial Registrar. Membership of these employee associations totalled 190 099.

Further details regarding State Industrial Tribunals may be found in the *South Australian Year Book 1977*.

## EMPLOYEE ORGANISATIONS

At 31 December 1976 there were 137 separate unions operating in South Australia; although a number of unions exist only in this State, branches of interstate or federated unions account for the majority of total membership. Some of these are bound under a system of unification with centralised control while others are practically independent and self-governing, the federal bond existing only for limited specified purposes.

The following table gives particulars of the number of separate unions and union membership for the years 1972 to 1976. The table includes estimated percentages of trade union members to total wage and salary earners in employment. The estimates of total wage and salary earners have been derived by adding figures for employees in agriculture and private households employing staff to the estimates of employees in all other industries at the end of each year. The percentages shown should be regarded as giving only a broad indication of the extent of union membership among wage and salary earners because they are based on estimates of *employed* wage and salary earners that are subject to revision. The degree of unemployment of reported union members would affect the percentages for a particular year and comparisons over time. The employment estimates have recently been revised to incorporate new bench-marks derived from the 1971 Population Census and other sources and are now classified according to the Australian Standard Industrial Classification.

**Trade Unions, South Australia  
At 31 December**

Year	Separate Unions	Members			Proportion of Members to Total Wage and Salary Earners		
		Males	Females	Persons	Males	Females	Persons
	No.			'000		Per cent	
1972.....	132	171.6	52.1	223.7	62	36	53
1973.....	135	181.6	60.2	241.8	64	39	55
1974.....	135	189.4	63.4	252.8	66	39	56
1975.....	135	187.3	68.2	255.6	66	41	57
1976.....	137	186.4	69.3	255.7	64	40	55

The central labour organisation for the State is the United Trades and Labor Council of South Australia, and combined union councils exist for Mount Gambier, Port Augusta, Port Lincoln, Port Pirie, the Upper Murray, Leigh Creek and Whyalla. These central organisations, together with individual unions are affiliated with the Australian Council of Trade Unions (ACTU). All major unions are affiliated with the ACTU, which was founded at an All-Australian Trade Union Congress in 1927. The Trades and Labor Council is the State branch of the ACTU and has the right to appoint one representative to act on the executive of the ACTU.

A historical summary of the growth of the trade union movement in South Australia was included on pages 280-1 of the *South Australian Year Book 1969*.

## EMPLOYER ORGANISATIONS

In industrial matters there are four dominant employer organisations in the State:

- (1) The South Australian Employers Federation Inc., which works mainly under the State Industrial Conciliation and Arbitration Act, is a federation of employer organisations, although provision is made for individual membership. Services provided include the negotiating and drafting of industrial agreements, and the

preparation and presentation of cases before industrial tribunals. Advice is provided on existing awards and determinations, and on various aspects of industrial legislation.

- (2) The Chamber of Commerce and Industry (SA) Inc., which also works mainly under the State Industrial Conciliation and Arbitration Act, has individual members who subscribe directly to the Chamber for the industrial and other services provided. Where appropriate, members are grouped into trade associations. The Chamber's industrial advocates represent members in the making and variation of awards, and assist members in the settlement of disputes. The Chamber monitors Bills presented to the Parliaments and, where appropriate, makes representations on behalf of its members seeking amendments to legislation.
- (3) The Metal Industries Association, South Australia (MIASA) is the principal employers' organisation registered under the provisions of the Commonwealth Conciliation and Arbitration Act. It represents the varied interests of the State's metal and engineering manufacturing sector by monitoring developments in industrial relations, education and training, trade, economic and legislative matters.
- (4) The South Australian Automobile Chamber of Commerce Inc., also registered under the Commonwealth Conciliation and Arbitration Act, is an industrial organisation aimed at protecting and conserving the interests of employers in the motor and allied industries.

#### WORKER PARTICIPATION

The principal instruments of the State Government policy on worker participation in management are the Industrial Democracy Unit in the Premier's Department, whose role is to develop particular guidelines and methods of implementation for the private and public sectors, and two specialist committees.

The first of these committees is the Tripartite Advisory Committee on Industrial Democracy, whose function is to inform both the private and public sectors of industry and their trade unions and representative organisations of the State Government's intentions, and in turn keep the State Government informed of reactions to those initiatives. During 1977 this committee published an important policy document entitled 'Industrial Democracy—Philosophy, Nature and Scope' in which it defined industrial democracy as being concerned primarily with providing employees with the opportunity and right to influence decisions within their work organisation.

The second committee, the Public Service Advisory Committee, is concerned with the special circumstances which arise in implementing an industrial democracy program in the State Public Service. This committee now includes representatives of the trade union movement.

Emphasis is continuing to be directed towards public sector organisations and a number of Public Service departments have industrial democracy schemes operating at various stages. A number of the more significant statutory authorities have also begun development of systems appropriate to their own structure.

In the private sector companies have taken initiatives, in some instances with the help of State Government resources and in some other cases independently. The nature of these projects range from development of new work organisations for individual small scale work areas, to consideration of company-wide profit and ownership sharing schemes.

A continuing program of education in concepts of industrial democracy and the implications for organisations, trade unions and employees involving seminars, conferences, workshops and individual enterprise programs, has been supplemented by a newsletter.

An international conference on industrial democracy was held in Adelaide at the end of May 1978.

For further details on industrial democracy in South Australia, refer to pages 377-9 of the *South Australian Year Book 1977*.

### INDUSTRIAL DISPUTES

Details of the number and extent of industrial disputes occurring in South Australia are shown in the next table. Effects on other establishments because of lack of materials, disruption of transport services, power cuts, etc. are not included in these statistics.

#### Industrial Disputes, South Australia<sup>(a)</sup>

Period	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
				\$'000
<b>Annual Averages:</b>				
1951-55 .....	30	17 800	50 500	310.0
1956-60 .....	24	12 800	22 400	157.4
1961-65 .....	39	18 500	26 000	234.6
1966-70 .....	82	45 100	62 600	717.6
1971-75 .....	156	71 300	149 600	2 752.0
<b>Year:</b>				
1972 .....	111	49 800	60 900	858.0
1973 .....	159	56 900	130 600	2 144.0
1974 .....	180	116 300	316 500	6 105.1
1975 .....	194	69 600	127 600	3 168.2
1976 .....	118	130 400	151 800	4 285.2
1977 .....	93	26 400	30 600	940.0

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes workers indirectly involved at the establishments where the stoppages occurred.

Particulars of all disputes in progress during the year are included in the annual figures. Consequently, details of the number of disputes and of workers involved in the disputes which commenced in any year, and were still in progress during the following year, are included in the figures for both years. Working days and wages lost are included in the appropriate year. Workers involved in more than one dispute during the year are counted once for each dispute. Because of difficulties in identifying all participants in every dispute the statistics should be regarded as giving only a broad measure of the extent of work stoppages.

In the following table industrial disputes occurring during 1976 are compiled according to the Australian Standard Industrial Classification (ASIC). A dispute involving workers in more than one industry group is counted once only and is included in the industry group which has the largest number of workers involved. Other details are allocated to their respective industry groups.

Industrial Disputes: Industries, South Australia, 1977<sup>(a)</sup>

Industry	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
		'000	'000	\$'000
Agriculture, forestry, fishing and hunting	—	—	—	—
Mining	—	—	—	—
Manufacturing:				
Food, beverages and tobacco	9	3.1	7.1	218
Textiles; clothing and footwear	—	—	—	—
Wood, wood products and furniture	1	—	0.1	2
Paper and paper products, printing and publishing	2	0.2	0.2	6
Chemical, petroleum and coal products	—	—	—	—
Metal products, machinery and equipment (c)	20	14.6	11.4	348
Other manufacturing (d)	10	1.2	3.7	113
Electricity, gas and water	4	0.4	0.2	6
Construction	16	0.5	1.2	40
Wholesale and retail trade	4	0.4	0.4	15
Transport and storage, communication:				
Water transport	3	0.3	0.5	21
Railway transport, air transport	6	1.3	3.1	84
Road transport, other transport and storage, communication	6	3.4	2.0	63
Entertainment, recreation, restaurants, hotels and personal services	2	0.2	0.1	3
Other industries	10	0.7	0.6	19
<b>Total</b>	<b>93</b>	<b>26.4</b>	<b>30.6</b>	<b>940</b>

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes workers indirectly involved at the establishments where the stoppages occurred.

(c) Includes basic metal products, fabricated metal products, transport equipment and other industrial machinery and equipment and household appliances.

(d) Includes non-metallic mineral products and leather, rubber and plastic products.

## 7.3 WAGES AND HOURS

### WAGES

Before the National Wage Cases of 1967, wages consisted of two distinct elements, a basic or living wage and a margin or loading which was appropriate to the employee's occupation. A more detailed description of these elements was included on pages 253 and 257-8 of the *South Australian Year Book* 1967.

The total wage concept was accepted by the decision of the Conciliation and Arbitration Commission in June 1967. The application of this concept (until the introduction of wage indexation guidelines in 1975) limited the number of national wage cases in any year to one and provided the Commission with a flexible basis for decisions.

#### National Wage Fixation

The *Conciliation and Arbitration Act* 1904 gives the Australian Conciliation and Arbitration Commission power to make an award or to certify an agreement 'making provision for, or altering, rates of wages, or the manner in which rates of wages are to be ascertained, on grounds predominantly related to the national economy and without examination of any circumstance pertaining to the work upon which, or the industry in which, persons are employed'. The Commission holds wage inquiries from time to time with its findings applicable to industrial awards within its jurisdiction. A detailed account of the history of national wage fixation before the introduction of the total wage concept appears in the Arbitration Reports and a summary was included on pages 257-60 of the *South Australian Year Book* 1968.

In the 1975 National Wage Case, principles were adopted which included indexing award wages to changes in the Consumer Price Index. The following table shows the



change in the Consumer Price Index, the award wage increase and the increase in the weekly minimum wage for each quarter from the beginning of 1975.

**Wage Indexation: Changes in Award Total Wage and Minimum Wage**

Consumer Price Index		Award Wage Increase	Minimum Wage (a)	Date Operative
Quarter	Increase			
	%		\$	
1975:				
March	3.6	3.6 per cent	male 79.60 female 71.60	15 May 1975
June	3.5	3.5 per cent	82.40	18 Sept 1975
September	0.8	} 6.4 per cent	87.70	15 Feb 1976
December	5.6		(b)	
1976:				
March	3.0	3.0 per cent on award wages up to \$125 per week and \$3.80 per week on award wages above \$125.	95.50	15 May 1976
June	2.5	\$2.50 per week on award wages up to \$166 per week and 1.5 per cent on award wages above \$166.	98.00	15 Aug 1976
September	2.2	2.2 per cent	100.20	22 Nov 1976
December	6.0	\$5.70 per week	105.90	31 Mar 1977
1977:				
March	2.3	1.9 per cent on award wages up to \$200 per week and \$3.80 per week on award wages above \$200.	107.90	24 May 1977
June	2.4	2.0 per cent	110.10	22 Aug 1977
September	2.0	1.5 per cent	111.80	12 Dec 1977
December	2.3	1.5 per cent on award wages up to \$170 per week and \$2.60 per week on award wages above \$170.	113.50	28 Feb 1978

(a) From the beginning of the pay period which included 30 June 1975 the adult male and female minimum wage were equalised.

(b) Minimum wage further increased to \$92.70 from 1 April 1976.

**State Wage Fixation**

For many years, all awards of both the State Industrial Commission and Conciliation Committees created under the Industrial Conciliation and Arbitration Act, 1972-1975 had included a 'living wage' for both adult male and adult female employees. In determining such living wages, the Full Commission could, as deemed fit, take into consideration any decision of the Australian Conciliation and Arbitration Commission which related to awards of that tribunal and was likely to affect employees subject to awards in South Australia. As such, in May 1975 the Full Commission granted a 3.6 per cent increase in all ordinary award rates to employees under State awards and agreements, being a flow-on of the National Wage decision of 30 April 1975. The living wage for adult males was increased to \$48.20 per week and to \$38.60 for adult females.

However, the Industrial Conciliation and Arbitration Act provided that no new determination of a South Australian living wage could be made until at least 6 months from the date of the previous determination. Thus in September 1975 the Act was

amended to facilitate flow-on from quarterly National Wage decisions by deleting reference to the living wage, award rates thereafter being specified as total wages.

Following a recommendation by the Australian Conciliation and Arbitration Commission concerning indexation of over-award payments, the State Government agreed in late September 1975 to make wage rises due to indexation apply to over-award and service payments for weekly paid Government employees and to back date the decision to 15 May 1975, the beginning of indexation.

In a judgement by the Full Commission in October 1975 it was ruled that the Commission had the power to make 'paid rates' awards as well as 'minimum rates' awards. This judgement means that it is now possible for over-award payments to be built into awards, leading to greater uniformity in wage rates for employees under State awards.

In December 1975, the Full Commission finally adopted the Federal wage indexation guidelines but reserved the right to deal with anomalous situations outside the scope of wage indexation.

The Full Commission went a step further than the Australian Conciliation and Arbitration Commission in June 1976 when it ruled that, under State awards service payments, leading hand rates and other special allowances should be included in the ordinary rates to which indexation rises apply.

### **Equal Pay**

In a decision handed down on 15 December 1972, the Full Bench of the Australian Conciliation and Arbitration Commission decided to enlarge the concept of 'equal pay for equal work' to that of 'equal pay for work of equal value,' *i.e.* awards rates for all work should be considered without regard to the sex of the employee. The new principle is applied to all awards of the Commission. However, it was considered that the social and economic consequences of the decision would be wide-ranging and so under normal circumstances implementation would take place by three equal instalments so that one-third of any increase was payable no later than 31 December 1973, half of the remainder by 30 September 1974 and the balance by 30 June 1975. Under principles established in 1969, equal pay was to be given for equal work and the decision was not intended to rescind those principles under which females could become entitled to equal pay earlier than they would under the December 1972 decision.

In the 1972 decision, the Commission rejected the claim that adult females be paid the same minimum wage as adult males because of the family considerations involved in male minimum wages. However, in the 1974 National Wage Case the Commission discarded the family component concept and decided to extend the male minimum wage to females in three stages, the rates for both males and females becoming equal from the beginning of the pay-period in which 30 June 1975 occurred.

Following an amendment to the Industrial Conciliation and Arbitration Act in September 1975, the concept of a separate State living wage for both males and females was abolished by a decision of the Full Bench of the South Australian Industrial Commission handed down on 15 December 1975.

A historical discussion on the relativities of male and female wage rates was included on pages 290-2 of the *South Australian Year Book* 1970.

### **Award Wages**

The minimum weekly amounts provided in awards, determinations, and registered agreements under Federal and State jurisdiction are known as award rates. The amounts shown in the following tables are a weighted average of minimum weekly wage rates payable to adult males and females in South Australia. Generally these are award rates; however, in a few cases where unregistered agreements are dominant in a particular

industry, rates prescribed therein are used. The amounts shown should not be regarded as actual current averages, but rather as indexes expressed in money terms. The minimum rates used are for representative occupations within each industry, the weights for each occupation and industry being based on sample surveys conducted in 1954, with allowance made where necessary for subsequent changes in the industrial structure. Because of coverage difficulties rural industries are excluded. The statistics are designed to show movements in minimum wages as distinct from salaries, with the result that those awards, etc. which relate solely or mainly to salary earners have been excluded.

In the next table weighted average minimum weekly wage rates for males and females are shown for individual industrial groups.

**Weekly Wage Rates: Industrial Groups, South Australia<sup>(a)</sup>**  
**At 31 December**

Industrial Group	1973	1974	1975	1976	1977
Dollars					
ADULT MALES					
Mining and quarrying . . . . .	71.36	103.49	112.03	127.33	140.34
Manufacturing:					
Engineering, metal work, etc. . . . .	71.28	101.55	110.71	126.86	140.26
Textiles, clothing and footwear . . . . .	71.17	91.49	107.35	123.37	136.16
Food, drink and tobacco . . . . .	72.27	98.34	110.46	127.16	140.40
Sawmilling, furniture, etc. . . . .	75.06	99.88	107.12	122.87	135.65
Paper, printing, etc. . . . .	81.11	108.84	118.95	137.40	150.99
All manufacturing groups . . . . .	72.67	100.89	110.91	127.43	140.69
Building and construction . . . . .	77.59	106.60	127.65	144.54	157.90
Railway services . . . . .	71.38	100.27	107.38	122.84	135.51
Road and air transport . . . . .	73.23	104.63	112.52	129.18	142.61
Shipping and stevedoring . . . . .	87.96	112.56	138.80	157.57	172.14
Communication . . . . .	101.96	129.73	140.52	159.70	174.72
Wholesale and retail trade . . . . .	75.90	104.19	112.35	131.82	145.10
Public authority (n.e.i.) and community and business services . . . . .	74.16	97.23	111.46	129.16	142.34
Amusement, hotels, personal services, etc. . . . .	70.30	92.44	105.47	121.06	133.78
All industrial groups . . . . .	75.20	103.32	115.13	132.20	145.50
ADULT FEMALES					
Manufacturing:					
Engineering, metal works, etc. . . . .	61.80	92.19	99.00	121.89	134.59
Textiles, clothing and footwear . . . . .	60.32	81.88	101.43	118.67	133.04
Food, drink and tobacco . . . . .	57.56	89.51	99.07	121.31	136.39
Other manufacturing . . . . .	60.67	87.21	100.56	121.45	134.15
All manufacturing groups . . . . .	60.39	87.76	100.03	120.98	134.38
Transport and communication . . . . .	74.98	101.81	113.16	132.10	145.26
Wholesale and retail trade . . . . .	62.56	96.24	106.22	131.97	145.16
Public authority (n.e.i.) and community and business services . . . . .	61.64	90.85	104.85	122.81	139.42
Amusement, hotels, personal services, etc. . . . .	59.90	84.94	99.98	116.90	129.94
All industrial groups . . . . .	62.11	91.47	103.34	125.11	138.64

(a) Weighted average minimum weekly rates payable for a full week's work (excluding overtime) as prescribed in awards, determinations and agreements. Excludes rural industries.

Classified as Federal are awards of, or agreements registered with, the Australian Conciliation and Arbitration Commission and the Coal Industry Tribunal, and determinations of the Commonwealth Public Service Arbitrator. Incorporated under the State heading are awards or determinations of, or agreements registered with, State industrial tribunals, together with any unregistered agreements used in the computations.

The following table shows weighted average minimum weekly wage rates for adult males and adult females with separate details shown for award rates within Federal and State jurisdictions. The index numbers refer to the weighted average minimum weekly wage rates of all awards.

#### Weekly Wage Rates, South Australia<sup>(a)</sup>

31 December	Rates of Wage				Index Numbers All Groups (Base: Australia 1954 = 100)	
	Federal Awards		State Awards		Adult Males	Adult Females
	Adult Males	Adult Females	Adult Males	Adult Females		
	\$	\$	\$	\$	\$	\$
1973.....	76.21	63.67	73.00	61.03	266.3	312.0
1974.....	104.75	89.50	100.21	92.81	365.8	459.5
1975.....	117.57	103.82	109.07	103.02	407.6	519.1
1976.....	134.03	119.67	127.68	129.70	468.1	631.0
1977.....	147.22	132.83	141.36	143.08	515.3	698.1

(a) Weighted average of minimum weekly rates payable for a full week's work (excluding overtime) as prescribed in awards, determinations and agreements. Excludes rural industries.

#### EARNINGS

Figures given in this section relate to actual average weekly earnings (including award wages, salaries, overtime earnings, over-award and bonus payments and prepayments) of all wage earners and salaried employees, whether adult or junior, full-time, part-time, or casual. Payments to members of the defence forces are excluded.

Particulars of wages and salaries are not available for males and females separately and average earnings have therefore been calculated by using total civilian employment expressed in terms of 'male units'. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings.

#### Average Weekly Earnings per Employed Male Unit, South Australia

Year	September Quarter	December Quarter	March Quarter	June Quarter	Year
			Dollars		
1972-73.....	88.70	95.00	90.30	99.50	93.40
1973-74.....	104.20	110.40	106.10	120.80	110.40
1974-75.....	129.80	141.80	137.40	145.30	138.60
1975-76.....	148.10	163.70	154.40	167.60	158.50
1976-77.....	175.00	182.80	172.90	187.40	179.50
1977-78.....	195.90	200.10			

As quarterly figures are affected by seasonal influences, comparisons for trends should be made by relating complete years or corresponding quarters. Because of variation in coverage, etc. these figures cannot be related to the minimum weekly wage rates shown in the preceding section.

Separate estimates of the average weekly earnings of males and females, and of adults and juniors, shown in the next table, have been obtained from sample surveys conducted in the last pay-period of October for each year since 1972.

**Average Weekly Earnings: Private and Government Employment**  
South Australia<sup>(a)</sup>

October	Adult Males			Junior Males	Adult Females	Junior Females
	Overtime	Ordinary Time	Total			
Dollars						
1974.....	11-90	126-90	138-80	74-50	107-60	68-40
1975.....	9-80	144-60	154-40	85-00	125-20	79-00
1976.....	12-50	166-30	178-80	97-60	151-10	96-70
1977.....	12-30	183-60	195-90	109-80	170-70	110-50

(a) Full-time employees other than managerial, executive, professional and higher supervisory staff.

The surveys were based on a sample selection of private employers subject to payroll tax and details of employees in non-government hospitals not subject to payroll tax, employees of Commonwealth and State Government departments, authorities and semi-government bodies and local government authorities. Employees in agriculture and domestic service were excluded as were those of religious, benevolent and similar organisations exempt from payroll tax.

Similar surveys were also conducted in the last pay-periods of October for the years 1968 to 1971 but coverage in these years was restricted to private employers subject to payroll tax. Details of these earlier surveys were included on pages 344-5 of the *South Australian Year Book 1974*.

### HOURS OF WORK

The 40-hour week is the standard working week for employees under Federal and State awards; however, the number of hours constituting a full week's work varies between occupations. Significant variations to this standard working week were achieved in the stevedoring industry during 1972 where a 70-hour fortnight has operated from June 1975. Certain Federal awards covering rural industries prescribe hours in excess of forty, while other occupations by tradition work less than forty hours, although forty hours is generally retained in their awards.

The weighted average standard hours (excluding overtime) prescribed in awards, determinations, and agreements for a full working week for adult male employees in all industries in South Australia, except rural, shipping, and stevedoring was 39-92 hours at 30 September 1977. This compared with 43-83 hours at 30 September 1947 immediately before the introduction of the 40-hour week. The weighted average for female employees at 30 September 1977 was 39-77 hours. The weighted average figure for South Australian male employees has not changed significantly since 1953, nor for females since 1951. The normal working day in manual trades is of eight hours duration, and employees working beyond these hours are paid penalty rates.

The following table shows the relative distribution of employed civilian wage and salary earners in South Australia according to the number of hours worked in a specified week, as recorded in the August Labour Force Surveys. The distribution is based on actual hours worked, including overtime, rather than hours paid for, and is therefore affected by public holidays, leave, absenteeism, temporary absence from work because of sickness, accident and industrial disputes, and work stoppages caused by plant breakdowns and weather.

**Employed Wage and Salary Earners: Hours Worked, South Australia<sup>(a)</sup>**

August	Proportion who Worked the Following Hours in the Specified Week							Total
	0	1-29	30-34	35-39	40	41-48	Over 49	
	Per cent							
1975.....	7.0	13.6	4.2	14.5	40.6	12.1	8.0	100.0
1976.....	6.1	13.2	4.8	14.3	43.3	11.0	7.3	100.0
1977.....	4.6	14.9	4.3	15.1	42.7	10.7	7.7	100.0

(a) Employed civilian population, fifteen years of age and over.

## HOLIDAYS AND LEAVE

### Public Holidays

A number of days are observed each year throughout the State as public holidays and additional days may be proclaimed either on a State-wide basis or applicable to particular localities. Employees required to work on public holidays normally receive an extra day's pay and are paid at penalty rates. From 1971 authorised public holidays are:

New Year's Day (1 January or the following Monday if that day falls on a Saturday or Sunday),

Australia Day (first Monday after 25 January),

Good Friday,

Easter Saturday,

Easter Monday,

Anzac Day (25 April or the following Monday if 25 falls on a Sunday),

Adelaide Cup Day (third Monday in May),

Queen's Birthday (usually observed on a Monday early in June),

Labour Day (second Monday in October),

Christmas Day (25 December or the following Monday if 25 falls on a Saturday or Sunday), and

Proclamation Day (28 December or the following Monday if 28 falls on a Saturday or Sunday).

The Holidays Act makes provision for other days to be proclaimed in lieu of the authorised holidays. Additional holidays may also be proclaimed.

### Annual Leave

Under Federal awards generally, four weeks annual recreation leave is granted to employees who have completed twelve months continuous service and there are

provisions for a proportionate payment where employment is terminated before the completion of twelve months. Under State awards the Federal standard has generally been adopted.

Employees of the South Australian Public Service are entitled to four weeks annual recreation leave. However, with the exception of some employees engaged in essential services *e.g.*, hospitals, motor vehicle registrations, etc., State public servants are required to take three days of their recreation leave between the Christmas and New Year holidays. Commonwealth public servants were granted four weeks annual recreation leave from 1 January 1973.

Certain employees in special occupations or where regular shift work is involved *e.g.* police officers, nurses, etc., are entitled to annual recreation leave in excess of four weeks.

In 1973 the South Australian Industrial Commission handed down a decision which enabled part-time workers, when taking annual leave, to be paid the normal weekly wage that they would have received had they been at work.

In addition to normal holiday pay many employees receive an annual leave bonus of 17.5 per cent of the payment they would have received had they not been on leave. Officers of the South Australian and the Commonwealth Public Service receive a 17.5 per cent leave loading up to a maximum of average weekly earnings for the September quarter of the year in which the leave accrued.

#### **Sick Leave**

The Industrial Conciliation and Arbitration Act, 1972-1975 for South Australia provides that all full-time employees shall be eligible to receive annually not less than ten days cumulative sick leave on full pay. There is also provision for insertion in awards allowance for unlimited accumulation of such leave. Most Federal and State awards provide for two weeks sick leave a year.

#### **Long Service Leave**

In 1964 the Australian Conciliation and Arbitration Commission included, for the first time in a Federal award, long service leave, granting employees in the graphic arts and metal trades industries leave on the basis of thirteen weeks for twenty years service in respect of employment before the date of the decision, and eight and two-thirds weeks in respect of each ten years of subsequent service; these provisions have been extended to many other Federal awards. In a number of other cases, registered agreements provide for thirteen weeks leave after fifteen years service.

The South Australian Long Service Leave Act, 1967-1972 entitles employees, in respect of continuous service after 1 January 1972, to thirteen weeks leave for each ten years service. In respect of service before 1 January 1972 the entitlement is calculated at the rate of thirteen weeks for fifteen years service for the period 1 January 1966 to 31 December 1971 and at the rate of thirteen weeks for twenty years service for the employment period up to 31 December 1965. The obligation to grant leave is imposed on all employers in South Australia except in regard to employees entitled to long service leave pursuant to an award of the Australian Conciliation and Arbitration Commission. The Industrial Commission has the power to exempt an employer from the provisions of the Act where the employees involved have access to benefits not less favourable than those prescribed by the Act. Other provisions of the Act relate to payment for leave, deferment of leave, claim for leave on termination of employment, and notice of granting of leave.

State and local government employees are in general entitled to ninety calendar days leave after ten years service, and Commonwealth Government employees to three months after ten years service. The long service leave provisions which apply to State public servants are also extended to teachers employed under the Education Act.

The various long service leave arrangements provide for additional *pro rata* periods of leave for service in excess of the minimum, and for *pro rata* payments for employees who have completed a specified term of service but who, through the termination of their services or through death, do not complete the full entitlement period.

### **Maternity and Paternity Leave**

In 1973, new provisions were introduced to the Public Service Act which entitle female employees of the Commonwealth Public Service, whether permanent or temporary, to at least twelve weeks maternity leave on full pay and to a total period of absence of up to fifty-two weeks in respect of each confinement. Provisions for paternity leave were also introduced at this time. A male employee, permanent or temporary, can apply for paternity leave provided he is the father, or a person accepting responsibility for the care and maintenance of an expected or newly-born child. Leave not exceeding one week, may be granted in the period one week before the expected date of birth of the child to five weeks after the actual date of birth.

Maternity leave provisions also exist for female employees of the South Australian Public Service. The maximum special leave without pay is twenty-six weeks but leave on full pay to which the officer has an entitlement may be used in addition to, or in substitution for the special leave. No paternity leave is available to male employees.

There are provisions in the Education Act for maternity leave for teachers in the South Australian Education Department with the maximum leave being fifty-eight weeks and the minimum fourteen weeks. Leave is taken without pay except when long service credits are used.

Maternity leave provisions have been introduced into some awards applicable to private industry in South Australia but the proportion of the workforce so covered is relatively small. Several Industrial Agreements filed with the South Australian Industrial Commission contain maternity and paternity leave provisions.

## **7.4 INDUSTRIAL SAFETY**

### **SAFETY REGULATIONS AND INSPECTION**

On the recommendation of the Parliamentary Select Committee on Occupational Safety, Health and Welfare in Industry and Commerce, a new Act, the Industrial Safety, Health and Welfare Act, was passed in 1972. This Act replaced those sections of the Industrial Code, 1967-1972 that dealt with the safety, health and welfare of persons employed in factories, shops, offices and warehouses and the Construction Safety Act, 1967 with respect to persons employed on building and construction sites.

Only general principles applicable to all employed persons in industry (primary as well as secondary), commerce and in State Government are contained in the Industrial Safety, Health and Welfare Act. It authorises the making of detailed provisions by regulations for different industries and different processes. The Act is progressively coming into operation for different industries as regulations are prepared. The Construction Safety Regulations, 1974 were the first to be prepared and apply to persons employed on building and construction sites. They came into force on 1 April 1974 and revoked all regulations made under the Construction Safety Act, 1967. The Rural Industries (Machine Safety) Regulations, 1975 and the Power Driven Machinery (Safety) Regulations, 1975 came into effect on 1 January 1975. These were followed by the Shops and Offices Regulations, 1975 which came into effect on 26 June 1975, and the Industrial Safety Code Regulations which came into effect on 1 September 1975. On 6 October 1977, the Logging Industry Safety Regulations came into effect.



At present most of the legislation directed at industrial safety is administered by the Department of Labour and Industry, although other authorities hold responsibilities in certain fields.

#### *Department of Labour and Industry*

The general working conditions in industrial premises (factories, shops, offices and warehouses) are regulated by the Industrial Safety Code Regulations, 1975, and the Shops and Offices Regulations, 1975. Inspections are made by Departmental officers to ensure that the requirements of the Safety Regulations with respect to safeguarding of machinery, safety of processes, cleanliness and general working conditions on industrial premises are being observed.

The registration and inspection of steam boilers and other pressure vessels is provided for under the Boilers and Pressure Vessels Act, 1968-1971. The Lifts and Cranes Act, 1960-1972 regulates the use of lifts, escalators, cranes and hoists, and requires the Department to approve new installations and to inspect regularly existing lift equipment. The Inflammable Liquids Act, 1961-1976, and the Liquefied Petroleum Gas Act, 1960-1973, regulate the storage and carriage of these products.

#### *Department of Mines*

Regulations under the Mines and Works Inspection Act, 1920-1970 provide for the health and safety of persons engaged in mining, quarrying or associated treatment plants and for the protection of the general public. Mining sites and camps must be maintained in safe condition with specific attention given to ventilation, sanitation, the use of explosives and the protection of the area amenity and environment. All mining operators are required to achieve some form of rehabilitation of areas disturbed by mining. The legislation includes operations conducted by local government authorities and road and rail construction authorities.

Officers of the Department inspect mines and quarries; ensure there is no undue impairment of the environment; check old workings; investigate mining accidents and complaints associated with mining activities; and give advice to industry on matters pertaining to mining and explosives.

#### *South Australian Health Commission*

Health aspects of industrial safety are the responsibility of the Occupational Health Branch of the Health Commission. The Commission investigates health hazards resulting from the presence of toxic and noxious substances in industry, both on its own initiative and on reference from employers, unions, other authorities, and individuals. Hazards investigated include both chemicals and such physical agents as noise, heat and radiation, including the use of radio-active substances and irradiating apparatus for industrial, scientific, or medical purposes.

#### *Department of Services and Supply (Chemistry Division)*

The Explosives Act, 1936-1974 regulates the importation, manufacture, carriage, storage, and sale of explosives. The Chemistry Division is responsible for the maintenance of government magazines and the licensing and inspection of magazines. Vehicles used in the carriage of explosives are also licensed. Commercial explosives entering the State are inspected by the Division.

#### *Electricity Trust of South Australia*

Consumers' electrical installations are required to conform to the service rules of the Electricity Trust and the wiring rules of the Standards Association of Australia, and are subject to inspection by Trust officers. Persons engaged in installation, maintenance or

repair of electrical installations and permanently connected equipment must be licensed to do this work in accordance with the provisions of the Electrical Workers and Contractors Licensing Act, 1965-1966. Under the Electrical Articles and Materials Act 1940-1967 certain classes of electrical articles and materials may only be sold or hired or offered for sale or hire if they are of a type approved by the Trust or a recognised interstate authority.

## WORKMEN'S COMPENSATION

### Legislation

Provisions describing assistance for workmen sustaining personal injury out of or in the course of their employment are included in the Workmen's Compensation Act, 1971-1974. The provisions of the Act extend to injuries arising out of or in the course of employment and cover accidents during recess periods, travelling to or from work, travelling to or from or while in attendance at a place of pick up, travelling to or from or attending a trade or technical school, and travelling for medical treatment while on compensation.

An injury may be physical or mental. It includes diseases contracted and the aggravation or recurrence of an injury or disease including any pre-existing coronary heart disease.

Compensation is payable when the injury results in death, or in total or partial, permanent or temporary incapacity. Where death results from the injury, the Act provides for payment to members of the family wholly or partly dependent on the earnings of the deceased. In such a case, compensation will be an amount equal to the sum of the workman's earnings in the six years before the accident plus \$500 for each dependent child, with a maximum of \$25 000. If the workman has not been in the same employment for six years the amount will be his average weekly earnings in the job at which he was working at the time of the accident multiplied by 312, with a maximum of \$25 000. Where a workman dies leaving no dependants, compensation will be paid into the estate covering medical, funeral and other expenses with a maximum of \$500.

Where the injury does not result in death, the most common form of compensation is weekly payment. If incapacity is for one week or more compensation is an amount equal to average weekly earnings during the twelve months preceding the incapacity. The maximum liability of an employer is \$18 000, unless the workman is totally and permanently incapacitated, when it is \$25 000 or such greater amount as may be fixed by the Court having regard to the special circumstances of the case. Weekly payments must begin within two weeks of the workman providing the employer with a medical certificate and his declaration in the correct form stating that he believes himself entitled to compensation. The payment must be made to the workman on his usual pay day.

Provision is made for lump sum payments in lieu of weekly payments. Such payments are arranged by agreement; or after six months, by proceedings in the Industrial Court of South Australia on application of either employer or employee.

Lump sum payments are payable for certain specified injuries *e.g.* loss of limbs, for permanent injuries which may involve total or partial incapacity for work whether actual or potential *e.g.* speech or hearing loss, or no incapacity for work *e.g.* severe facial scarring.

In addition to other compensation reasonable medical, hospital, nursing, constant attendance, rehabilitation and ambulance expenses are paid and compensation is provided to \$150 for loss or damage to clothing and personal effects and \$300 for loss or damage to tools of trade.

Excluded from the scope of the Act are members of the crews of fishing vessels remunerated by a share in the profits or the gross earnings of the working of such vessels, certain persons who are contestants in sporting or athletic activities, service personnel and

Commonwealth Government employees. Compensation for employees of the Commonwealth Government is provided by the *Compensation (Commonwealth Government Employees) Act 1971*.

#### **Workmen's Compensation Insurance**

The Workmen's Compensation Act requires every employer, unless specifically exempted, to obtain from a licensed insurance company a policy which fully covers his liability under the Act. The exemptions are the State Government which provides its own cover through the State Government Insurance Fund, the South Australian Railways Commissioner, and any employer who can satisfy the Minister of Labour and Industry of his ability to meet all probable claims and who is accordingly issued with a certificate of exemption.

During 1975-76, approximately 78 000 claims were lodged under the Workmen's Compensation Act, 1971-1974, and compensation payments totalling \$46.7 million were made for wages lost, hospital and medical expenses and lump sum settlements. Further details may be obtained from the bulletin *Industrial Accidents, 1975-76* (Catalogue No. 6301.4) published by the South Australian office of the Australian Bureau of Statistics.

#### **INDUSTRIAL ACCIDENTS**

The statistics set out below have been compiled from reports of workmen's compensation claims closed during the year ended 30 June 1976 and of unclosed claims of three years duration at 30 June 1976. Reports are submitted by insurance companies, self-insurers, and State Government departments, through the South Australian Department of Labour and Industry.

For the purpose of this collection an 'industrial accident' is defined as a compensated work injury causing the absence of the injured person from work for one week or more but excluding disease cases (for which separate statistics are available) and accidents during journey or recess periods if the victim is not engaged in normal occupational duties. 'One week' is interpreted as one week of seven (7) calendar or five (5) working days. Because of a problem of inadequate reporting no statistics of fatal accidents are available for 1975-76.

Although the term 'industrial accident' is used, the statistics represent workmen's compensation claims finalised during the year ended 30 June 1976. The accidents, to which the claims refer, may have occurred in the year the claim was finalised or during any other year within the coverage of the current collection, *i.e.* within the previous three financial years. For accidents which occurred since 1 July 1972 and for which the claims had still not been finalised by 30 June 1976, estimates of amounts yet to be paid are included in the statistics: however, there is evidence that the reporting of such claims is incomplete.

Each original claim has been regarded as a separate accident and although reports have been received of re-opened claims, no details of these have been included in the statistics.

Only persons within the coverage of the South Australian Workmen's Compensation Act, 1971-1974 are included. Notable exclusions are self-employed persons (although following a change in legislation persons supplying labour only in contracts have been included from 1 January 1974) and all Commonwealth Government officers and employees.

The exclusion of self-employed persons is likely to have considerable effect in industries where self-employment is significant (*e.g.* retail trade, rural industries). Because of the exclusion of Commonwealth Government employees, defence services and Government communications industry groups are not covered, while coverage is reduced in other industries (*e.g.* building and construction). Because of the movement of employees across State boundaries some reports received may refer to accidents occurring in States other than South Australia. The number of such reports is thought to be negligible.

Industrial accident statistics are industry classified by use of the 1969 Preliminary Edition of the *Australian Standard Industrial Classification* (ASIC).

During 1975-76, 18 435 non-fatal accident claims each involving lost time of one week or more were reported as finalised: total time lost as a result of those accidents was slightly more than 96 400 weeks (more than 2 000 man-years of working time).

**Non-fatal Accidents: Industry Groups, Number, Time Lost and Amount Paid  
South Australia, 1975-76**

Industry	Accidents		Time Lost		Amount Paid (a)	
	Number	Percentage Of Total	Total	Average	Total	Average
			Weeks		\$'000	\$
Agriculture, forestry, fishing and hunting .....	717	3.9	3 837.8	5.4	752.0	1 049
Mining .....	198	1.1	1 038.6	5.2	305.3	1 542
<b>Manufacturing:</b>						
Food, beverages and tobacco .....	1 924	10.4	8 197.2	4.3	1 731.6	900
Wood, wood products and furniture .....	572	3.1	3 063.0	5.4	687.1	1 201
Glass, clay and other non-metallic mineral products .....	545	3.0	2 604.2	4.8	589.1	1 081
Basic metal products .....	629	3.4	3 164.8	5.0	937.7	1 491
Fabricated metal products .....	1 117	6.1	5 863.8	5.2	1 521.6	1 362
Transport equipment .....	2 297	12.5	13 857.0	6.0	2 808.3	1 223
Other industrial machinery etc., and household appliances .....	1 217	6.6	5 343.2	4.4	1 239.4	1 018
Other .....	980	5.3	5 713.6	5.8	1 418.9	1 448
<b>Total manufacturing</b>	<b>9 281</b>	<b>50.3</b>	<b>47 806.8</b>	<b>5.2</b>	<b>10 933.8</b>	<b>1 178</b>
Electricity, gas and water ..	503	2.7	2 571.4	5.1	482.2	959
Construction .....	2 845	15.4	14 522.0	5.1	2 944.4	1 035
Wholesale and retail trade	2 070	11.2	11 044.4	5.3	2 244.1	1 084
Transport, storage and communication .....	1 063	5.8	5 513.6	5.2	1 099.3	1 034
Finance, insurance, real estate and business services .....	138	0.7	872.4	6.3	184.1	1 334
Public administration .....	78	0.4	435.8	5.6	88.3	1 132
Community services .....	1 044	5.7	5 384.2	5.2	958.3	918
Entertainment, recreation, restaurants, hotels and personal services .....	498	2.7	3 380.0	6.8	693.6	1 393
<b>Total .....</b>	<b>18 435</b>	<b>100.0</b>	<b>96 407.0</b>	<b>5.2</b>	<b>20 685.3</b>	<b>1 122</b>

(a) Compensation for wages lost, hospital and medical expenses, and lump sum settlements.

In the following table industrial accidents are allocated to an accident factor; this being the underlying agency, other than human failing, which appeared to contribute most materially to the accident.

## Non-fatal Accidents: Industry Groups, Accident Factor, South Australia, 1975-76

Industry	Falling, Stumbling, Slipping, Stepping On, Etc.		Handling	Objects Moving or Falling		Total
	Machinery, Vehicles			Other(a)		
Agriculture, forestry, fishing and hunting .....	128	144	150	77	218	717
Mining .....	34	61	36	41	26	198
Manufacturing .....	1 089	2 105	3 209	1 440	1 438	9 281
Electricity, gas and water ..	30	142	175	86	70	503
Construction .....	134	961	914	457	379	2 845
Wholesale and retail trade	181	590	685	286	328	2 070
Transport, storage and communication .....	129	385	288	188	73	1 063
Finance, insurance, real estate and business services .....	12	56	40	13	17	138
Public administration .....	5	36	22	3	12	78
Community services .....	40	348	379	83	194	1 044
Entertainment, recreation, restaurants, hotels and personal services .....	24	200	132	28	114	498
<b>Total .....</b>	<b>1 806</b>	<b>5 028</b>	<b>6 030</b>	<b>2 702</b>	<b>2 869</b>	<b>18 435</b>

(a) Includes electricity, explosions, hand tools, harmful substances etc.

The following table indicates the distribution of non-fatal accidents for 1975-76 by nature and location of injury.

## Non-fatal Accidents: Nature and Location of Injury, South Australia, 1975-76

Nature of Injury	Head (Including Eye)	Neck and Spine	Trunk	Arm and Hand	Leg and Foot	Total (Including Other)
Bruising, contusion and superficial injury .....	92	51	514	968	1 191	2 816
Lacerations .....	194	5	26	2 360	454	3 039
Foreign bodies .....	270	—	—	—	—	270
Burns and scalds .....	75	3	31	240	190	539
Fractures .....	49	35	170	719	621	1 594
Dislocations .....	1	149	4	58	19	231
Sprains, strains, hernias ..	—	811	4 857	1 959	1 749	9 376
Traumatic amputations ..	—	—	—	110	2	112
Concussion .....	151	—	—	—	—	151
Enucleation .....	1	—	—	—	—	1
Internal injury .....	—	—	23	—	—	23
Nerve injury .....	29	3	4	50	3	89
Other and unspecified ....	38	3	10	45	36	194
<b>Total .....</b>	<b>900</b>	<b>1 060</b>	<b>5 639</b>	<b>6 509</b>	<b>4 265</b>	<b>18 435</b>

**Industrial Diseases**

The International Labour Office distinguishes an occupational disease from a work injury in that it exhibits one or more of the following characteristics:

- (1) the slow and protracted nature of its cause;
- (2) its ascribability to repeated or continuous action of a mechanical, physical or chemical cause; it is not the effect of a single event but of a cause acting imperceptibly and constantly;
- (3) indeterminateness of the time of its beginning due to its slow and insidious development;
- (4) the possible importance of individual predisposition as a factor in the development of the pathological conditions.

Where there is any evidence at all that a disease has resulted from an initial injury, the episode is classified as an injury rather than a disease. On the other hand, disabilities caused purely by continuous movements of a joint are treated as a disease.

The problem of inadequate reporting of fatal accidents extends also to the reporting of fatal disease cases and as a consequence no statistics of fatal diseases are available for 1975-76.

**Non-fatal Diseases: Number, Time Lost and Amount Paid, South Australia, 1975-76**

Disease	Number		Time Lost		Amount Paid	
	Males	Females	Males	Females	Males	Females
			Weeks		\$'000	
Infective and parasitic diseases .....	20	52	105.2	215.6	19.1	25.9
Neoplasms .....	4	1	27.6	2.6	7.8	0.4
Diseases of the nervous system and sense organs	25	27	338.4	186.2	60.4	52.9
Diseases of the circulatory system:						
Arteriosclerosis and degenerative heart disease .....	34	1	427.0	2.0	136.0	0.3
Other .....	3	1	27.6	3.0	4.1	0.7
Diseases of respiratory system .....	14	1	247.2	1.0	59.2	0.1
Diseases of skin and cellular tissue:						
Occupational dermatitis .....	150	58	701.2	365.2	106.8	55.8
Other .....	61	31	212.0	65.4	26.5	8.5
Diseases of bone and organs of movement .....	73	74	640.2	470.2	98.6	81.0
Other .....	11	8	42.0	29.6	21.1	4.5
<b>Total .....</b>	<b>395</b>	<b>254</b>	<b>2 768.4</b>	<b>1 340.8</b>	<b>539.6</b>	<b>229.9</b>

**PART 8**

**PHYSICAL DEVELOPMENT**

**8.1 WATER SUPPLY AND SEWERAGE**

**WATER SUPPLY**

With 96 per cent of the State receiving less than 500 millimetres of rain a year, and high evaporation increasing the demand for water and causing heavy losses from reservoirs, water conservation is of vital importance to South Australia.

The Waterworks Act, 1932-1975 gives the Minister of Works power to divert and impound the water from any streams or springs and take the water found in or under any lands for the purpose of constructing, completing, extending or maintaining any waterworks or for supplying water to or in any water district. The Act also gives the Minister power to declare any district, place or town a water district. The function of exploiting water resources is performed through the Engineering and Water Supply Department.

In 1973, the State Government announced its new water resources management policy. This statement embraced the same important principles contained in a document *Proposed National Approach to Water Resources Management*, being developed under the auspices of the Australian Water Resources Council and adopted by the Commonwealth and State Governments in 1976.

With the Water Resources Act, 1976 coming into effect from 1 July 1976, the Control of Waters and Underground Preservation Acts were repealed.

The Water Resources Act provides for the assessment, conservation, development and management of the water resources of the State by the Minister of Works and for the control and management of their utilisation, quality and other purposes.

Its provisions include the establishment of a South Australian Water Resources Council, Regional Water Resources Advisory Committees, and Appeal Tribunal and a Well Drillers' Examination Committee. It is proposed that four Regional Water Resources Advisory Committees (River Murray, Padthaway, Northern Adelaide Plains and Arid Areas) will be appointed initially.

The Water Conservation Act, 1936-1975 provides for the control of small reservoirs, bores, tanks etc. established in remote areas as emergency water supplies or to assist local development.

The following table gives details of water supplies in South Australia at 30 June for the five years to 1977.

Water Supplies, South Australia<sup>(a)</sup>

At 30 June	Area of Works	Storage Capacity (a)	Length of Mains
	km <sup>2</sup>	Megalitres	km
1973.....	68 945	230 000	20 490
1974.....	69 005	230 030	20 946
1975.....	68 973	228 770	21 278
1976.....	69 013	228 240	21 688
1977.....	69 030	228 810	22 049

(a) Includes pipeline storage tanks and service reservoirs on distribution systems.

#### Water Filtration

The Hope Valley Water Treatment Works commenced supplying filtered water to the Metropolitan Distribution System in November 1977.

Construction of the Anstey Hill Works continued during the year and is expected to be completed by mid-1979. Work commenced on the Barossa Water Treatment Works in the latter part of 1977 and is expected to be completed by late 1981.

### DISTRIBUTION OF WATER RESOURCES

#### Drainage Systems

In agreement with the States, the Australian Water Resources Council has divided Australia into twelve surface water drainage divisions. The divisions which constitute major surface water resources for South Australia are the South Australian Gulf Drainage Division which lies wholly within the State and in which are located all important State reservoirs, and the Murray-Darling Division, of which only a part is located in South Australia, and the waters of which are allocated between this State, Victoria, and New South Wales in accordance with the terms of the River Murray Waters Agreement (see page 340).

Part of the large Lake Eyre Drainage Division covers the northern and eastern areas of the State, but, although streams in the area may flood extensively on occasions, they are generally unreliable and significant only to the local pastoral industry. The section of the South-East Coast Drainage Division which intrudes into the south-east corner of South Australia has no good dam sites but a high rainfall in the area provides a good underground water resource of considerable importance to the State. Underground resources on the seaward edge of the Western Plateau Division, which cover the south-western part of the State are recharged also from local rainfall.



*South Australian Gulf Drainage Division*

The eastern boundary of this Division is formed partly by the Mount Lofty Ranges which rise to a maximum of 727 metres east of Adelaide and to over 1 000 metres north of Burra and further north it follows the Flinders Ranges which reach a height of 1 166 metres at St Mary Peak. The boundary then rounds Lake Torrens and, further south, the western boundary is formed by a discontinuous line of hills on Eyre Peninsula. Kangaroo Island is also included, so that in all, the Division covers the whole perimeter of the South Australian gulfs. The individual river basins in this Division are all very small.

Most of the South Australian reservoirs are situated in this Division as can be seen from the map on page 333. The Little Para Dam, constructed on the Little Para River north of Adelaide at a cost of \$11 million, is expected to begin service in the latter part of 1978. The capacity of this reservoir is 18 000 megalitres and the waterspread is 125 hectares. The following table shows the capacity, area at full supply level and the catchment area of the ten largest reservoirs at 30 June 1977.

**Major Reservoirs, South Australia<sup>(a)</sup>****At 30 June 1977**

Reservoir	Capacity	Area at Full Supply Level	Catchment Area
	Megalitres	Hectares	km <sup>2</sup>
South Para .....	51 300	444	228
Mount Bold .....	47 300	308	388
Myponga .....	26 800	280	124
Kangaroo Creek .....	24 400	121	289
Millbrook .....	16 500	178	233
Happy Valley .....	12 700	188	451
Tod River .....	11 300	134	196
Bundaleer .....	6 370	85	1 671
Baroota .....	6 140	63	136
Warren .....	5 080	105	119

(a) All reservoirs with a capacity in excess of 5 000 megalitres.

Rainfall in excess of 750 millimetres a year occurs only on a very small area in the Mount Lofty Ranges, while in the north-west of the Division the annual average is less than 150 millimetres. In the southern parts of the Division, average precipitation generally exceeds potential evaporation only from May to August, and over most of the Division monthly evaporation rates exceed rainfall throughout the year.

The average annual run-off in this Division at the lowest practical dam sites is estimated at 430 000 megalitres but is subject to considerable variation. The two best streams, the Onkaparinga and the Torrens, account for 135 000 megalitres of the average flow and the combined annual flow of these two has varied between 467 000 megalitres down to 8 600 megalitres in the last eighty years.

After the major dam sites in the Mount Lofty Ranges had been developed because of the small size of the individual catchments in the Division, and the relatively low run-off and its high variability, it was found more economical to provide additional water to Adelaide and other high demand centres *via* pipelines from the River Murray. However, as demand continues to rise and problems with the quality of the River Murray water increase, attention is being re-directed to further development of streams within the Division.

The present average annual extraction of water by the Engineering and Water Supply Department from the Gulf Drainage Division is about 120 000 megalitres; private diversion may take a further 13 000 megalitres.

### River Murray

The River Murray is the most important source of water supply for South Australia. Under the terms of the River Murray Waters Agreement (see page 340), South Australia is entitled to 1 546 810 megalitres of water annually and, after Dartmouth Reservoir has been completed and declared to be effective, this entitlement will be increased to 1 850 250 megalitres, subject to the declaration of restriction by the River Murray Commission. Losses by evaporation and seepage account for about 1 100 000 megalitres per annum. Over the past ten years, irrigation diversions have averaged 387 000 megalitres per annum and domestic, industrial and stock supplies have averaged 73 000 megalitres per annum. In a dry year, domestic, industrial and stock supplies may be as high as 129 000 megalitres.

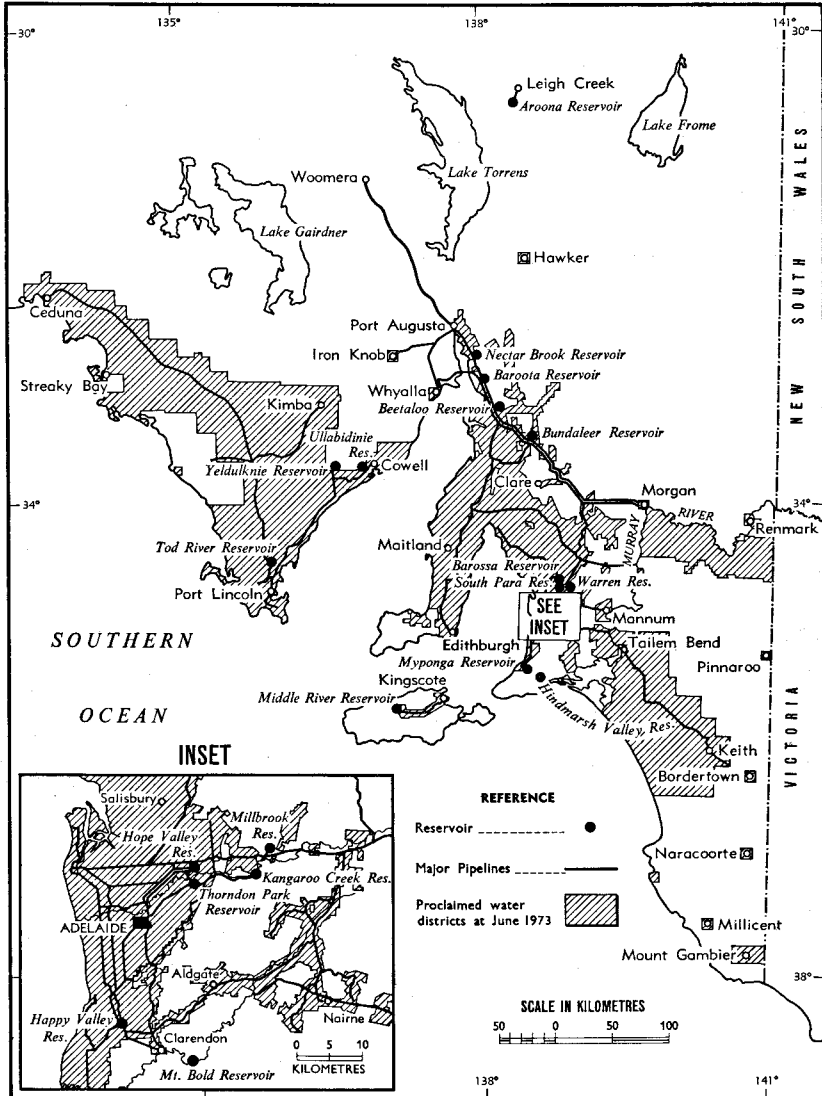
Adelaide metropolitan water supplies are supplemented by River Murray water through the Mannum-Adelaide and Murray Bridge-Onkaparinga pipelines. The Morgan-Whyalla, Swan Reach-Stockwell and Tailem Bend-Keith pipelines provide the water supply for extensive country areas or augment local resources in these areas. The first water pumped through the Mannum-Adelaide Pipeline reached the metropolitan system in 1954. The water is drawn from the River at Mannum nearly 67 kilometres in a direct line from Adelaide, and is raised by three pumping stations a total of 457 metres to a 137 megalitre summit storage near Tungkillo. At first the water flowed into the Torrens and Onkaparinga Rivers and hence into the metropolitan system; later the pipeline was extended to a terminal storage near Modbury. The Mannum-Adelaide pipeline is also connected to the Warren Reservoir on the South Para River and branches serve many country areas *en route*.

A second large pipeline to augment the metropolitan supply was completed in 1973. The pipeline extends for 48 kilometres from the River Murray near Murray Bridge to the River Onkaparinga near Hahndorf, and the water is distributed through the reservoirs on the latter stream. Three pumping stations lift the water 418 metres over the first 40 kilometres of the pipeline to a summit storage from which an 8-kilometre gravity section of the line discharges into the Onkaparinga. A branch main supplies the town of Murray Bridge and other branch mains supply areas in the Mount Lofty Ranges.

The Morgan-Whyalla pipeline, completed in 1944, includes four pumping stations which lift the water 478 metres over a distance of 92 kilometres from Morgan to a summit storage at Hanson. From here the water gravitates 267 kilometres *via* Port Augusta to Whyalla. Branch lines have been laid to Woomera (177 kilometres) and other country centres. The Morgan-Whyalla pipeline, being an additional source of supply for the Bundaleer system, has permitted reticulation over most of Yorke Peninsula. A second main was completed in 1966 and appurtenant works comprising additional storages and four new pumping stations were commissioned early in 1970. The second main which more than doubles the capacity of the scheme, parallels the original main to Baroota Reservoir, then extends westerly to Whyalla *via* a 12-kilometre undersea crossing of Spencer Gulf.

A 53-kilometre pipeline between Swan Reach and Stockwell which connects to the distribution section served by Warren Reservoir commenced operating in 1969 to supplement the supplies for lower northern areas from the Murray. A 143-kilometre pipeline between Tailem Bend and Keith completed in 1969 forms the backbone of a scheme involving 800 kilometres of branch mains subsequently laid to supply River Murray water to towns and farmlands in the Upper South East. The River Murray also supplies towns along its banks by means of direct pumping.

PORTION OF SOUTH AUSTRALIA  
WATER SUPPLIES



### Other Water Resources

#### *Eyre Peninsula*

Eyre Peninsula has no perennially flowing streams with the Tod River the only stream that can be relied upon in normal years to provide some flow of water. Underground basins, mainly in the southern portion of Eyre Peninsula provide most of the water supplies. Port Lincoln is supplied entirely with underground water available at shallow depth in the Lincoln Basin and Uley South Basin. The Uley-Wanilla Basin supplies Cleve and Cowell *via* the East Coast Main and also supplements the natural intake of the Tod Reservoir which was built in 1922 on a tributary of the Tod River.

A trunk main, 384 kilometres in length, from the Tod Reservoir to Ceduna and Thevenard was laid between 1923 and 1926 and a program of replacement and enlargement was completed in 1974. A 106-kilometre trunk main from Lock on the Tod Trunk Main supplies water to Kimba and intervening farmlands. This supply is augmented with water from the Polda underground basin.

#### *South East*

The hydrology of the South East covers a complex of surface and underground waters with substantial water resources but to date most work has been concentrated on the removal of water by drainage and this is discussed on pages 340-1.

Eight Mile Creek to the east of Port MacDonnell carries a permanent natural overflow from the springs of the Ewen Ponds area and discharges 60 000 megalitres a year into the Southern Ocean and there are other visible outlets. The Blue Lake now provides 4 000 megalitres annually to Mount Gambier. There is scope for considerable development in the South East and it is likely that 120 000 megalitres could be used annually from the underground water resources of the Region.

#### *Other Underground Supplies*

Many other areas of the State are dependent on underground supplies, particularly for stock drinking water. The aquifers of the North Adelaide Plains provide the major source of water for market gardens and related irrigation, but the demand level of 21 000 megalitres has been found to be beyond the permanent capability of the area. Usage is subject to Government control, and investigations on means of prolonging the life of the aquifers are in progress. A more complete discussion on underground water appears on pages 21-2.

### Metropolitan Water Supply

In the following table, details of metropolitan services as well as revenue and expenditure are given for the metropolitan water supply district for the years 1973-74 to 1976-77.

**Adelaide Metropolitan Waterworks, South Australia**

Particulars (a)	1973-74	1974-75	1975-76	1976-77
Length of mains (kilometres) . . . . .	6 867	6 874	7 049	7 268
Number of services . . . . .	278 624	285 125	293 644	302 817
			\$'000	
Revenue:				
Rates and excess water . . . . .	20 486	22 072	28 771	33 602
Other . . . . .	213	260	187	469
<b>Total . . . . .</b>	<b>20 699</b>	<b>22 332</b>	<b>28 957</b>	<b>34 071</b>

## Adelaide Metropolitan Waterworks, South Australia (continued)

Particulars (a)	1972-73	1973-74	1974-75	1975-76	1976-77
Expenditure:					
Working expenses .....	8 516	10 121	13 118	15 295	20 842
Interest .....	6 738	7 543	8 996	10 279	12 004
<b>Total</b> .....	<b>15 254</b>	<b>17 664</b>	<b>22 114</b>	<b>25 575</b>	<b>32 846</b>
Surplus .....	3 661	3 035	218	3 383	1 225

(a) Includes particulars relating to near country areas supplied by extensions of the Metropolitan distribution system.

## Water Consumption

The following table gives details of water used during the year and storage capacity of major reservoirs at the end of the year for metropolitan and country districts for the years 1973-74 to 1976-77. The quantity of water pumped from the River Murray through the major pipelines is also shown.

## Water Storage and Consumption, South Australia

Particulars	1973-74	1974-75	1975-76	1976-77
Capacity of major storages (at end of year):				
Adelaide metropolitan water supply (a)	188 680	188 680	188 680	188 680
Country water supply .....	36 150	34 860	34 860	34 860
Water consumption:				
Adelaide metropolitan water supply (b)	144 700	156 900	172 300	175 645
Country water supply (c) .....	67 700	76 400	82 800	84 192
Pumped from River Murray:				
Mannum-Adelaide pipeline .....	22 200	19 300	39 000	78 602
Murray Bridge-Onkaparinga pipeline ..	7 500	3 700	5 800	68 354
Morgan-Whyalla pipeline .....	21 400	21 500	27 600	29 229
Other supply systems .....	10 700	10 900	13 800	24 220

(a) Includes storages on the Mannum-Adelaide and Murray Bridge-Onkaparinga pipelines.

(b) Consumption within the Adelaide Statistical Division.

(c) Includes consumption in various areas outside of the Adelaide Statistical Division supplied from the Metropolitan distribution system.

## WATER RATES AND CHARGES

Water rates are levied on all properties served from or abutting a water main except where specific exemption from rating applies or the property is in an area not subject to rating.

Amounts payable by individual ratepayers are determined by a base water rate on the annual value of a property and a water rate per kilolitre. Payment of the base rate on property permits use of a water allowance which is determined by dividing the sum involved by the water rate per kilolitre. Water used in excess of the allowance is charged at the rate per kilolitre.

Valuation equalisation was introduced in Metropolitan and Country Water Districts from 1 July 1975. This system provides for a more even distribution of rates and properties of equal market value pay approximately the same base water rates irrespective of location or year of valuation. The approximate base water rate on a home with a market value of \$30 000 is \$76.50. A minimum charge of \$28 is applicable.

In Country Lands Water District (farm lands) the current base water rate is 32 cents for each hectare located within 1.6 kilometres of a main. A minimum charge of \$28 is applicable.

The current water rate per kilolitre applicable in City, Township and Country Lands Water Districts is 19 cents per kilolitre. Where water is supplied to properties outside of proclaimed water districts or otherwise beyond ratable limits it is supplied by measure at the ruling rate per kilolitre.

Approved churches, charitable institutions and schools are exempted from payment of water rates on annual values and water is supplied to them by measure at concessional prices. A remission of up to 60 per cent of water rates, with a maximum of \$50 a year, is provided to eligible pensioners.

Services from mains to property boundaries are installed and maintained by the Engineering and Water Supply Department. Connection fees are uniform throughout the State and are currently \$100 for a 20 millimetre service and \$150 for a 25 millimetre service with commensurately higher fees for larger services.

#### SEWERAGE ADMINISTRATION

Sewerage of cities and towns in South Australia is undertaken by the State Government under the authority of the Sewerage Act, 1929-1975. The Act is administered by the Engineering and Water Supply Department for the Minister of Works and provides for water borne sanitary sewerage schemes within proclaimed drainage areas. As a general rule the Government sewerage schemes are provided only in densely populated cities and towns where they are essential for public health or in areas where it is necessary to protect surface or underground water resources from pollution by domestic or industrial wastes.

Local Government authorities are empowered under the Local Government Act, 1934-1978 to provide sanitary drainage schemes and in recent years a number of these authorities have installed common septic tank effluent drainage schemes discharging to biological filters or oxidation ponds.

#### METROPOLITAN SEWERAGE

Sewerage for Adelaide was first authorised by an Act of Parliament in 1878. Construction began in 1879 and by 1881 sewerage from the city and inner suburbs was admitted to a sewage farm at Islington. Since then continual expansion of sewerage systems has kept pace with development of the metropolitan area as far as physical and financial factors permit and Adelaide is now the most completely sewered of the Australian capital cities.

The proclaimed Adelaide Drainage Area at 30 June 1977 served an estimated population of 880 000 persons and covered 666 square kilometres of the Adelaide Plains between Darlington and Smithfield, the area between Port Noarlunga and Aberfoyle Park and portion of the Blackwood and Belair area. Subdivision developers are required to make capital contributions towards the cost of sewer and water extensions for all new allotments in areas capable of being served within the Drainage Area.

Four major sewerage systems are employed, each draining to separate sewage treatment works at Bolivar, Glenelg, Port Adelaide and Christies Beach. Islington Sewage Farm was abandoned in 1966 when the Bolivar Treatment Works was put into service. The Christies Beach Treatment Works began operating in August 1971, and will eventually serve the whole of the area between Coromandel Valley and Moana Beach. At present there are a number of small temporary treatment works installed in the Reynella-Morphett Vale area which will be phased out following connection of the developed areas to the Christies Beach Works.

A large number of common effluent drainage systems have been installed in fringe areas by local government authorities and most of these have been, or are planned to be, connected to the sewerage systems. A charge for each house connected is levied against local government authorities whose common effluent drainage systems discharge to sewer mains. Property owners pay an annual rate for the service to the local government authority concerned.

The following table shows details of metropolitan sewers for the last four years.

#### Metropolitan Sewers, South Australia

Particulars	1973-74	1974-75	1975-76	1976-77
Adelaide Drainage Area (km <sup>2</sup> ) .....	642	652	662	666
Length of sewers (km) .....	4 196	4 368	4 538	4 718
Number of connections .....	288 166	298 472	309 781	320 456
	\$'000			
Revenue:				
Rates .....	14 159	15 914	20 503	23 572
Other .....	166	223	81	148
Total .....	14 325	16 137	20 584	23 720
Expenditure:				
Working expenses .....	6 950	9 751	11 008	13 575
Interest .....	5 328	5 963	7 298	9 118
Total .....	12 278	15 714	18 306	22 693
Surplus .....	2 047	423	2 278	1 027

#### COUNTRY SEWERAGE

At 30 June 1977 the drainage areas of country sewerage schemes constructed and operated by the Engineering and Water Supply Department totalled 116 square kilometres; the length of sewers laid was 728 kilometres and the number of connections totalled 31 545.

Sewerage schemes are located at Angaston, Balhannah, Gawler, Gumeracha, Hahndorf, Lobethal, Mannum, Millicent, Mount Gambier, Murray Bridge, Myponga, Naracoorte, Port Augusta, Port Lincoln, Port Pirie, Stirling, Victor Harbor, and Whyalla.

Construction of the Port Pirie, Port Augusta, Gawler and Victor Harbor sewerage systems is still in progress. In 1976-77, 34 kilometres of sewers and 2 290 new connections were laid in country drainage areas. In addition, the Engineering and Water Supply Department has constructed schemes at Mount Burr and Nangwarry townships for the Woods and Forests Department and numerous schemes to serve country hospitals, institutions etc., operated by other authorities.

Common effluent drainage schemes have been installed by local government authorities at Barmera, Berri, Birdwood, Bordertown, Clare, Cleve, Cobdogla, Crystal Brook, Cummins, Eudunda, Kadina, Kapunda, Lameroo, Lock, Loxton, Maitland, McLaren Vale, Meningie, Mount Barker, Mount Pleasant, Mount Torrens, Nuriootpa, Paringa, Parndana, Penola, Pinnaroo, Port Augusta, Renmark, Riverton, Saddleworth, Tanunda, Waikerie, Wallaroo, Williamstown, Willunga, Woodside, and portion of Port Wakefield and Streaky Bay. In addition to local authorities installing township schemes, the South Australian Housing Trust have provided Housing Trust home areas with small schemes. These have been installed at Quorn, Echunga and Kingscote. The Australian National Railways have provided schemes for settlements in the areas of Stirling North, Hesso and

Pimba while the Department of Aboriginal Affairs has provided schemes at Point McLeay, Point Pearce, Nepabunna, Ernabella, Amata and Davenport Aboriginal reserves.

Construction of systems is currently being carried out at Ardrossan (part only), Burra and Goolwa, along with extensions at Barmera, Mount Barker, Nuriootpa and Tea Tree Gully. Surveys and designs are in progress for Littlehampton, Peterborough and Strathalbyn and tenders have been let for schemes to be installed at Kingscote and Tintinara.

#### SEWER RATES AND CHARGES

The Engineering and Water Supply Department provides sewer connections to property boundaries but internal drainage systems which are the responsibility of landholders must conform to regulations under the Sewerage Act and must be installed by authorised plumbers. Standard fees for sewer connections are \$50 and \$75 for 100-millimetre and 150-millimetre sizes respectively.

Sewer rates are levied on properties connected to or abutting a sewer, with a minimum annual charge of \$28. Valuation equalisation, as applicable to water rating, applies also to sewer rating. A marginally higher rate is charged in country areas. The approximate rate payable on a property with a market value of \$30 000 would be \$78 in the metropolitan area and \$96 in the country. A remission of up to 60 per cent of sewer rates to a maximum of \$50 is provided to eligible pensioners.

Rates levied by local government authorities on properties connected to common effluent schemes are usually proportionate to the costs and interest charges involved in the schemes.

#### WATER AND WATER POLLUTION CONTROL LABORATORIES

The Engineering and Water Supply Department has the responsibility to control pollution of the State's water resources, to maintain public water supplies at an acceptable quality and to operate sewerage systems. For this purpose, the Department maintains the State Water Laboratory at Bolivar, where a staff of chemists, biologists and other scientists and technical personnel examine over 85 000 samples of water, effluent and industrial wastes each year. A more detailed discussion on these laboratories was included on pages 369-71 of the *South Australian Year Book 1975*.

## 8.2 IRRIGATION AND DRAINAGE

### IRRIGATION

The development of irrigation areas in South Australia has been carried out by both Government authorities and private interests. Since 1930 the administrative authority for Government irrigation areas has been the Department of Lands with the Engineering and Water Supply Department the constructing authority for the Minister of Irrigation. A more detailed historical discussion of irrigation in South Australia was included on pages 314-6 of the *South Australian Year Book 1970*.

Irrigation areas are confined almost exclusively to the Murray Valley and can be classified into two groups; highland areas requiring the pumping of water, and reclaimed lands watered by gravitation. During 1976-77, 398 772 megalitres of water were diverted from the River Murray in South Australia for irrigation purposes.

#### Highland Areas

With the major exception of the Mypolonga Irrigation Area, highland irrigation is located in the hot and dry zone along the River Murray between Morgan and the Victorian border.



These areas are largely devoted to vineyards and citrus and stone fruit orchards which are irrigated by water pumped from the river in open concrete-lined channels or pipes. Many of the recently developed areas use a system of overhead or under-tree sprays for watering the blocks in preference to the traditional surface reticulation. Sprays are also being used to develop land too high for reticulated watering. Landholders on Government controlled areas and on private lands constituted under special Parliamentary Acts pay an annual rate for routine irrigation and a charge is made for additional water, except at Loxton and Coolong where water is supplied on a measurement basis. The Renmark Irrigation Trust also supplies water on a volume basis to landholders in its district.

Irrigation systems must also provide for the removal of surplus water which accumulates beneath the surface of the land. Blocks have internal drainage systems either leading to shafts and bores or to comprehensive drainage systems which convey the water to evaporation basins.

### Reclaimed Areas

On the lower Murray between Mannum and Wellington, a series of swamp and overflow areas have been reclaimed by Government and private agencies.

Although these reclaimed areas contain some market gardens they are devoted principally to the growing of green fodder for dairy herds and sheep flocks. These lands are watered by gravitation and surplus water is run into main drains from which it is pumped back into the river. Approximately 600 hectares of highlands adjacent to reclaimed areas have also been developed for the production of fodder crops through the use of spray irrigation and there are 260 hectares at Mypolonga used for horticultural crops.

### Irrigation Areas, South Australia

Area Irrigated	1973-74	1974-75	1975-76	1976-77
Government controlled:				
	Hectares			
War Service schemes (1939-45 War)	3 253	3 236	3 281	3 274
Other .....	12 850	12 722	12 600	12 454
Non-government:				
Trusts, boards and association areas	7 875	7 875	7 875	7 875
Private schemes .....	18 875	18 875	18 875	18 875

Further details of the 15 728 hectares irrigated in Government-controlled schemes in the year 1976-77 are shown in the following table.

### Government Controlled Irrigation Areas: South Australia, 1976-77

Area Irrigated	Highland Areas		Reclaimed Areas	Total
	Surface Reticulation	Spray Irrigation		
	Hectares			
War Service schemes (1939-45 War) .....	1 470	1 804	—	3 274
Other .....	7 170	1 726	3 558	12 454
Total .....	8 640	3 530	3 558	15 728

## THE RIVER MURRAY AGREEMENT

The *River Murray Waters Act* 1915 ratified an agreement between the Commonwealth Government and the States of New South Wales, Victoria and South Australia. The River Murray Agreement provides that the minimum quantity of water to be allowed to be passed for supply to South Australia in each year shall be sufficient to maintain certain specified monthly flows in the lower river. The flow at Albury is shared equally by New South Wales and Victoria and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation.

Works, to regulate the flow and control of the level of the River Murray, have included the construction of a number of storage areas and the erection of a series of locks and weirs. By 1928 Lake Victoria, in New South Wales adjacent to the South Australian border, had been converted into a large storage area supplying water for the South Australian irrigation settlements. Between 1922 and 1930 six locks and weirs were erected between Blanchetown and the Victorian border. In addition, five barrages were placed at the Murray mouth to prevent the ingress of salt water from the sea and to maintain a higher level in the River for the use of the reclaimed areas. These barrages were completed in 1940.

The major storage area, the Hume Reservoir above Albury, was completed in 1936. Further works, the last being completed in 1961, have doubled the original capacity to more than 3 million megalitres. Except for that held in various lock pools, no water from the Murray is stored in South Australia. In 1962 agreement was reached for the construction of a reservoir of over 6 million megalitres covering 1 300 square kilometres with its dam at Chowilla, just inside the State border, but early in 1969 the River Murray Commission recommended that an alternative dam be built at Dartmouth in Victoria before further consideration be given to the completion of the Chowilla dam. Legislation ratifying an agreement based on the Commission's recommendation was passed by the Commonwealth, New South Wales and Victorian Parliaments in 1970 and an Act ratifying the agreement was passed in the South Australian Parliament in August 1971. In June 1974 the River Murray Commission accepted a tender for the construction of the Dartmouth Dam and appurtenant works and at present construction work is proceeding.

## DRAINAGE

With the exception of the reclaimed areas along the lower Murray, already discussed in the previous section, and certain works associated with metropolitan development, drainage schemes in South Australia are confined to the south-east corner of the State. The topography of this area reveals a series of fertile valleys or flats interspersed by low infertile ranges running parallel to the sea and thus preventing the natural drainage of the land. In consequence, drainage schemes have been constructed to reclaim these areas.

The first major drainage scheme was commenced in 1863 and completed in 1885. This scheme, the Millicent Drainage System, reclaimed 40 000 hectares of land at a cost of \$300 000, this cost subsequently being included in the land allotment price. The system is maintained by the Millicent District Council from rates levied on land holders.

Following this early success the Government undertook the construction of further drains during the next sixty years. These drains were constructed under three sets of conditions: *National Drains* were constructed at Government expense, the cost being absorbed in the price of the land when sold; *Petition Drains* were constructed on request from landholders who agreed to repay the full cost to the Government over a period of forty-two years; *Scheme Act Drains*, commenced in 1908, provided for the Government and the landholders to share the cost, the landholders share being repayable over forty-two years. After the Scheme Act Drains had been completed it was found that the cost

exceeded the benefit derived, and subsequently, following a royal commission, the landholders' liability was reduced.

The passing of the South-Eastern Drainage Act Amendment Act, 1948 marked a new stage in the development of south-eastern drainage. Previously attention had been devoted to the construction of a system of drains removing large quantities of water from general areas and providing above all for the rapid removal of floodwaters. By 1948, 700 kilometres of drains had been constructed at a capital cost of \$1 441 752. However, in 1948, with the establishment of the Western Division Drainage Scheme, emphasis was placed on a complete drainage program as achieved by the earlier Millicent scheme. The Western Division Drainage Scheme, which aimed at the comprehensive drainage of 160 000 hectares of land between the Millicent and Kingston districts, has now been completed. In 1960 the Eastern Division Drainage Scheme, for the drainage of 300 000 hectares of flats lying between Kalangadoo and 65 kilometres north of Lucindale, was commenced and construction on this scheme was completed in November 1969.

Under the schemes introduced since 1948 landholders were required to repay an amount based on a 'betterment assessment' of their property. As in the other schemes this amount was repayable over forty-two years. The 1971 amendment to the South-Eastern Drainage Act extinguished the liability of landholders to make a capital contribution in respect to existing drainage construction.

At 30 June 1977 approximately 1 450 kilometres of drains (excluding the Millicent scheme) had been constructed at a capital cost of \$18 834 000. These drains vary considerably in size from only a few metres to over 60 metres bottom width.

The Board now also maintains the Eight Mile Creek Drainage Scheme which is located 35 kilometres south of Mount Gambier near Port MacDonnell. Fifty kilometres of drains remove excess spring and rain water from 16 660 hectares of peat land on which 32 dairy properties are situated.

In addition to new construction, continual attention must be paid to the prevention of silting and of weed growth and to the upkeep of over 500 bridges. Rates are levied on landholders to meet the costs of such maintenance. The closer settlement resulting from the drainage schemes has, in many areas, necessitated the construction of new bridges.

The system is administered by the South-Eastern Drainage Board under the South-Eastern Drainage Act, 1931-1974.

### 8.3 ROADS

Roads in South Australia are officially classified either as main roads, being those proclaimed as such under the provisions of the Highways Act, or district roads. Main and district roads within local government areas are vested in the various local governing authorities who primarily are responsible for construction and maintenance works within their respective areas. However, there is provision in the Highways Act for the Commissioner of Highways to construct, reconstruct, and maintain important roads after due notice has been given, and in practice most of the roads carrying heavy traffic are constructed and maintained by the Highways Department. In areas outside the control of local government authorities roads are vested in the Minister of Local Government under the control and management of the Commissioner of Highways.

The following table shows the length, as advised by the Highways Department, of roads customarily used by the public according to type of surface at 30 June 1977. The classification used is that adopted by the Commonwealth Department of Transport.

**Length of Roads: Type of Surface, South Australia  
At 30 June 1977**

Class of Road	Type of Surface				Total
	Natural Surface	Formed Only	Paved		
			Unsealed	Sealed	
	Kilometres				
National roads (a):					
National highways (b) .....	571	372	6	1 714	2 663
Export roads (c) .....	—	—	—	9	9
Major commercial roads (d) .....	—	—	—	47	47
Arterial roads (e):					
Rural .....	—	516	1 724	7 566	9 806
Urban .....	—	10	44	1 073	1 127
Local roads (f):					
Rural .....	35 988	22 743	19 046	3 246	81 023
Urban .....	465	584	372	4 433	5 854
<b>Total .....</b>	<b>37 024</b>	<b>24 225</b>	<b>21 192</b>	<b>18 088</b>	<b>100 529</b>

(a) Roads declared by the Commonwealth Minister for Transport to be national highways, export roads and major commercial roads under the provisions of the *National Roads Act 1974*.

(b) Roads linking State capital cities with other State capital cities, Canberra, Darwin, other specified cities and other roads considered to be of national importance.

(c) Roads which facilitate trade and commerce with other countries.

(d) Roads which facilitate trade and commerce or with other States.

(e) Roads declared by the Commonwealth Minister for Transport to be arterial roads under the provisions of the *Roads Grants Act 1974*.

(f) Roads not included in above categories.

The natural surface roads shown in the table include tracks in localities outside of local government areas.

In closely settled areas, particularly in the metropolitan area and country towns, most roads are surfaced with bituminous concrete or by bituminous penetration of a macadam base. In rural districts where traffic is light, roads may be formed of natural materials or be only lightly gravelled but the more important country roads are constructed of gravel or crushed rock and are improved as traffic warrants, by the addition of a bituminous seal.

A continuous program of road improvement is carried out by reconstructing and widening arterial roads in the metropolitan area and the construction and sealing of important rural roads. Extensive road construction is carried out also in new housing development areas.

Ferry services across the River Murray are provided on a free and continuous basis and are under the control and management of the Commissioner of Highways. The Commissioner also operates a free ferry across Cooper Creek, on the Birdsville Track in the far north of the State, when the Creek is in flood.

### ROAD FINANCE

Funds used for roadworks in South Australia are derived from four main sources, namely:

- (1) the net proceeds of fees imposed by the State Government for the registration of motor vehicles and the licensing of drivers;
- (2) grants from the Commonwealth Government;
- (3) charges imposed by the State Government under the Road Maintenance (Contribution) Act;
- (4) property rates and other levies imposed by municipal and district councils.

Funds received from the first three sources are expended by the Commissioner of Highways on works authorised by the Minister of Transport. The Highways Act provides for fees received for vehicle registrations and drivers licences, less cost of collection, to be credited to the Highways Fund. The Fund is credited also with interest on and repayments of advances made to local government authorities for roadworks and for the purchase of machinery; special contributions from the Bus and Tram Division of the State Transport Authority under the Highways Act; contributions from local government authorities towards the cost of lighting roads; licence fees collected under the Hawkers Act, 1934-1960; and other minor sundry receipts. Receipts under the Road Maintenance (Contribution) Act are paid into a special account at the State Treasury and applied only to the maintenance of public roads.

Exact figures are not available for total expenditure in South Australia on the construction, reconstruction, and maintenance of roads, streets, bridges, ferries, and associated works. Approximate expenditure by State and local government authorities during each of the past five years was; 1972-73, \$68 million; 1973-74, \$69 million; 1974-75, \$77 million; 1975-76, \$90 million and 1976-77, \$105 million. These figures include the cost of land purchased for new roads, for road widening and charges for depreciation of plant and machinery. Local government figures used to derive the totals include expenditure which is subsequently recouped from the public and expenditure on footpath maintenance and stormwater drainage.

**Highways Department, South Australia**  
**Receipts and Payments**

Particulars	1973-74	1974-75	1975-76	1976-77
RECEIPTS (\$'000)				
Motor vehicle registrations, licences, fees, fines, etc. ....	19 872	25 840	27 574	40 081
Road maintenance charges .....	3 859	4 050	4 243	4 716
Commonwealth Government grants	31 000	31 770	41 100	39 359
Repayments of, and interest on, advances to local authorities .....	386	474	326	198
Other .....	2 028	570	2 901	484
Total .....	57 145	62 704	76 144	84 838
PAYMENTS (\$'000)				
Construction and reconstruction of roads, bridges, etc. ....	35 210	39 180	44 095	53 008
Maintenance of roads, bridges, etc. ..	11 483	14 964	18 479	19 998
Interest, debt redemption, etc. ....	653	675	707	770
Advances to local authorities .....	4	42	31	26
Net purchases of land, buildings, plant, equipment, materials, etc. ..	339	888	1 446	2 988
Other (a) .....	7 659	7 671	9 243	8 826
Total .....	55 348	63 420	74 001	85 616

(a) This includes provision for leave and plant overhauls which may be a negative figure in some years.

The Local Government Act provides for grants-in-aid to be paid from the Highways Fund to local government authorities for expenditure on roads, other than main roads, and related works: in 1976-77 the total of these grants paid was \$365 826.

The biggest single element of roads expenditure omitted from the above table is the cost of work carried out under the provisions of the Planning and Development Act, 1966-1977, which requires persons and authorities (including the South Australian Housing Trust) who subdivide land for housing to provide roads to certain specifications.

### Commonwealth Government Road Grants

Road grants by the Commonwealth Government have been made to the States since 1923-24. Road grant arrangements for the period 1974-75 to 1976-77 are contained in the *National Roads Act 1974*, the *Roads Grants Act 1974*, the *Transport (Planning and Research) Act 1974* and the *Roads Acts Amendment Act 1976*.

In arriving at the current road grant arrangements, the Commonwealth Government took into account the Commonwealth Bureau of Roads *Report on Roads in Australia 1973*. In that report, the Bureau set out its assessment of the most appropriate road expenditure programs in each State for the years 1974-75 to 1978-79, and it made recommendations regarding the Commonwealth Government road grants and arrangements considered necessary to achieve these expenditure programs.

Although the Commonwealth Government was guided to a considerable extent by the Bureau report, the road grant program it adopted differed significantly from that recommended by the Bureau.

Under the *National Roads Act* a total of \$427.5 million in grants was allocated to States over a three-year period. Of this, South Australia was allocated \$58.8 million or 13.7 per cent. These grants were provided to meet the approved construction and maintenance costs of declared national highways, including, in South Australia, the principal road links connecting Adelaide to Melbourne, Adelaide to Perth and Adelaide to Darwin. Under the *National Roads Act*, provision was also made for construction and maintenance grants for expenditure on declared roads which facilitate trade and commerce with other countries and between States. These roads are referred to in the legislation as export roads and major commercial roads.

The *Roads Grants Act* provided a total of \$805.5 million in grants to States, of which South Australia received \$52.2 million or 6.5 per cent. These grants are provided for approved expenditures on urban arterial roads, rural arterial and developmental roads, urban local roads, rural local roads and minor traffic engineering and road safety improvements.

Under the *Transport (Planning and Research) Act* a total of \$15 million in grants was allocated to States; this includes an amount of \$1.1 million, or 7.3 per cent for South Australia. In the Act a further amount of \$11 million was provided for allocation among the States during the currency of the legislation of which South Australia received \$1.5 million. This action was aimed at imparting some flexibility to the arrangements, and to allow projects competing for these funds to be judged on their own merits. Grants under this Act were provided to meet two-thirds of the approved cost of all approved planning and research projects undertaken by the States in relation to roads, road transport and urban public transport.

Actual advances made under all three Acts varied from the amounts originally incorporated in schedules to the Acts. The Commonwealth Government road grants to South Australia under each of these three Acts, including supplementary grants provided for in amendments to the main Acts and in the *Appropriation Act (No. 4) 1974-75*, are shown in the table on page 345.

As a condition to the receipt of road grants the Commonwealth Government has stipulated that each State should meet, from its own resources, minimum annual road

expenditure quotas. These quotas are set out in the *Roads Grants Act 1974* as amended. The quotas for South Australia under this Act were \$25.4 million in 1974-75, \$33.5 million in 1975-76 and \$34.2 million in 1976-77.

### Commonwealth Government Road Grants, South Australia

Type of Grant	1974-75	1975-76	1976-77	Total
\$'000				
<i>National Roads Act 1974, etc:</i>				
National highways construction .....	16 210	17 490	17 300	51 000
National highways maintenance .....	1 310	2 110	1 400	4 820
Export; major commercial construction and maintenance .....	330	1 000	1 300	2 630
<b>Total National Roads Act .....</b>	<b>17 850</b>	<b>20 600</b>	<b>20 000</b>	<b>58 450</b>
<i>Roads Grants Act 1974, etc:</i>				
Rural arterial construction .....	1 200	1 770	3 300	6 270
Rural local construction and maintenance .....	4 790	5 300	5 300	15 390
Miters (a) .....	1 520	1 500	1 500	4 520
Urban arterial construction .....	7 510	8 290	7 600	23 400
Urban local construction .....	540	940	1 100	2 580
<b>Total Roads Grants Acts, etc. ....</b>	<b>15 560</b>	<b>17 800</b>	<b>18 800</b>	<b>52 160</b>
<i>Transport (Planning and Research) Act 1974 .....</i>	<i>870</i>	<i>1 150</i>	<i>580</i>	<i>2 600</i>
<b>Total .....</b>	<b>34 280</b>	<b>39 550</b>	<b>39 380</b>	<b>113 210</b>

(a) Minor traffic engineering and road safety improvements.

### ROADS SURVEY

A survey designated as the Australian Road Survey Update 1977 is in progress as a joint undertaking by the National Association of Australian State Road Authorities, Commonwealth Bureau of Roads and the Bureau of Transport Economics. A report of the results of this survey will be prepared for the Commonwealth Government to use as a basis of road finance legislation for the three years 1980-81 to 1982-83.

### FUTURE DEVELOPMENT

The *South Australian Year Book 1970*, on pages 319-25, contained some details of the reports of two major studies: these were the reports of the Town Planning Committee of South Australia (Metropolitan Development Plan), submitted in 1962, and the Metropolitan Adelaide Transportation Study (MATS) report, released in 1968. In June 1970 the Government undertook to review the MATS proposals with particular reference to public transport. The resultant Adelaide Transportation Report 1970 or 'Breuning Report' was discussed in the *South Australian Year Book 1971*, on pages 317-8.

One outcome of the Breuning Report was the appointment of a Director-General of Transport to advise the Minister on transport policy. In 1973 the Director-General submitted a report to the Minister, entitled *Public Transport in Metropolitan Adelaide*. The report contains a program of improvements to urban public transport ranging from specific projects to be executed in the near future to a broad program for up to thirty years in the future. This report has become the basis for current Government policy. A revised document to update this report was commenced in 1975.

Some extensive and important roadworks have proceeded, and will continue, along lines recommended in the earlier reports. These include major arterial road and street improvements and the progressive improvement of interstate road links. Major improvements to the main Adelaide to Melbourne route have been under way for some years and will continue.

Construction of the South Eastern Freeway has been completed to Callington and it is expected that the remaining section to the outskirts of Murray Bridge will be completed by 1979. The Swanport Deviation will provide a by-pass of Murray Bridge and includes a new bridge over the River Murray. Construction of this deviation is expected to be completed in 1979.

### RESEARCH

Because of the great area of South Australia and the wide variety of climatic and soil conditions, special sections of the Highways Department are engaged in constant investigation and testing of soils, materials, and construction methods to ensure that a high standard of road construction is maintained and that methods are adapted to the needs of particular areas.

South Australia contributes to Australian road development through its active participation in the National Association of Australian State Road Authorities. Specialist committees deal with bridge design, materials research, traffic engineering, bituminous pavements, plant and equipment, and long-term planning. The Association in 1960 established the Australian Road Research Board as a national centre for road research information and for the correlation and co-ordination of road research activities.

## 8.4 RAILWAYS

Railway systems in South Australia are operated by both the Commonwealth and South Australian Governments. Management of the Australian National Railways is vested in the Australian National Railways Commission.

In 1851 a 'Board of Undertakers' was appointed in connection with the construction of the Adelaide to Port Adelaide railway and in 1856 a Board of Railways Commissioners was appointed to control South Australian railway operations. This Board was abolished in 1859 and from then until 1887 control was vested in the Commissioner of Public Works. The South Australian Railways Commissioners Act of 1887 gave almost complete authority for management and administration to three Railways Commissioners, reserving (as in the past) financial control to Parliament. The powers of the three Commissioners passed to one Commissioner in 1892. The South Australian Railways Commissioners Act, 1936-1975, under which the Commissioner was appointed for a period of seven years, incorporated many of the provisions of the 1887 Act, including those for financial control.

In August 1975 the State Government approved the transfer of non-urban railways to the Australian National Railways Commission, although the actual transfer did not become operative until 1 March 1978. In December 1975, under the provisions of the South Australian Railways Commissioners Act Amendment Act, 1975 the State Transport Authority took over control of the South Australian Railways, including non-urban lines pending their full amalgamation with the Australian National Railways in March 1978. For further details see page 478.

In South Australia the only private railways open to general traffic are the lines owned by the Broken Hill Proprietary Co. Ltd. from Iron Knob and Iron Baron to Whyalla (82 kilometres) used for the carriage of iron ore; and from Coffin Bay to Port Lincoln (40 kilometres) used for the carriage of limesand.

At 30 June 1977 the route length of railways operated by the State and Commonwealth Governments open for traffic in South Australia totalled 5 961 kilometres. This consisted of 2 533 kilometres of broad gauge, 1 874 kilometres of standard gauge and 1 554 kilometres of narrow gauge.



Lines operated by the Commonwealth Government in South Australia at 30 June 1977 were: narrow gauge from Marree to the Northern Territory border, 591 kilometres; and standard gauge from Port Pirie Junction to the Western Australian border, 1 051 kilometres, Stirling North to Marree, 349 kilometres, and Port Augusta to Whyalla, 76 kilometres.

Only a small portion of the Adelaide metropolitan area is served by railways, the main trunk routes passing through northern and southern suburbs. The line to Christie Downs serves south-western suburbs and carries passenger traffic and goods traffic to Port Stanvac and Lonsdale. This line serves the rapidly expanding industrial and housing development along the coast south of Adelaide. The Port Adelaide line, its extensions to Semaphore and Outer Harbor, the branch line to Grange, and spur lines to industrial establishments provide better coverage in north-western suburbs than is achieved elsewhere in Adelaide.

An agreement has been reached between the South Australian and Commonwealth Governments for the construction of a standard gauge line between Tarcoola in South Australia and Alice Springs in the Northern Territory to replace the existing narrow gauge line from Marree to Alice Springs; the enabling legislation was passed by the Commonwealth and South Australian Parliaments in 1974. The contract for the initial construction was let in March 1975 and it is anticipated that the whole project will be completed by the end of 1981. As at 30 June 1977, 174 kilometres of track was laid and 220 kilometres of earth works and bridges completed. The route for the 830 kilometre line, estimated to cost \$145 million, has been carefully chosen to avoid areas subject to the flooding which renders the existing line inoperative for prolonged periods.

A more detailed historical survey on railways in South Australia was included on pages 263-6 of the *South Australian Year Book* 1966.

### Standardisation of Rail Gauges

The existence in South Australia of narrow, standard, and broad gauge systems has already been noted. For many years railway administrators have been greatly concerned about the increased costs and decreased efficiency associated with the transshipment of goods and passengers and with the provision, maintenance and operation of different sets of rollingstock. During recent years with the rapid development of road and air transport facilities there has been increasing pressure for standardisation of rail gauges in the interests of efficiency and economy of operation of transport services as a whole.

As part of an agreement enacted in 1949 to convert much of the South Australian rail system to standard gauge in 1963 the Commonwealth Government decided to proceed with standardisation of the Port Pirie-Broken Hill Railway. Conversion of the Port Pirie-Cockburn section was completed during 1969, and the new Cockburn-Broken Hill line was completed in January 1970. The first revenue-earning passenger train to use the coast-to-coast standard gauge line left Sydney on 2 March 1970 for the 3 961 kilometre run to Perth.

With the opening of the Port Pirie-Broken Hill standard gauge railway and the extension of the broad gauge from Terowie to Peterborough, two bogie exchange depots are now operated, one at Port Pirie and the other at Peterborough.

Before the financial provisions of the railways standardisation agreement can become effective in relation to any specific project Commonwealth Government acceptance of that project is necessary. Early in August 1969 it was announced that the Commonwealth and South Australian Governments had agreed on the terms of reference for a feasibility study on standardisation of the Adelaide-Port Pirie line and the carrying of traffic on

existing narrow gauge lines affected by standardisation. Consultants were engaged to carry out the study and in March 1970 they submitted a report to the Commonwealth Government: the State Government submitted alternative proposals.

Following consideration of the two proposals, consultants were commissioned to prepare a master plan which was duly presented to the respective Governments in January 1974. Enabling legislation was passed by both Parliaments late in 1974.

The scheme provided for a new standard gauge track to be built from Adelaide to Crystal Brook and the standard gauge line from Crystal Brook to Port Pirie to be duplicated. Standard gauge was to be provided also as a third rail addition to the existing broad gauge track between Snowtown and Wallaroo, and major terminal works in the Adelaide metropolitan area were to be constructed. The project, estimated to cost \$145.6 million was to be financed by the Commonwealth Government on a 70 per cent grant and 30 per cent loan basis.

Following the enactment of the legislation for the transfer of the non-urban railways to the Australian National Railways Commission, a committee was appointed to review the scheme. In December 1976 the committee recommended conversion of the existing broad gauge line to standard gauge on the existing earthworks between Salisbury and Port Pirie and a single additional standard gauge line from Salisbury to Adelaide with major terminal facilities in the Adelaide metropolitan area. The revised proposals are estimated to cost \$75 million. Some expenditure on the project, involving engineering and planning and the purchase of a small quantity of track material, has been incurred, but the project has been deferred pending further consideration.

## 8.5 HARBOURS AND AERODROMES

### HARBOURS

The State of South Australia, including Kangaroo Island, has a coastline of more than 3 850 kilometres. There are two large indentations, Gulf St Vincent and Spencer Gulf, which have many harbours for shipping.

Of the many seaports in South Australia, at present only sixteen are used by commercial shipping: nine of these have State-owned wharves or jetties and seven have privately-owned wharves or jetties. In addition the State maintains jetties or wharves for promenade and fishing purposes at fifty ports that are no longer used by commercial shipping and eighteen jetties are leased to district councils.

The Broken Hill Proprietary Co. Ltd owns and operates bulk handling facilities at Ardrossan, Rapid Bay, Whyalla and Proper Bay, while the Colonial Sugar Refining Co. Ltd owns and operates a bulk loading installation at Ballast Head, Kangaroo Island. The Australian National Railways operates the wharf at Port Augusta on behalf of the Commonwealth and the Port Stanvac oil terminal is owned by Petroleum Refineries (Aust.) Pty Ltd.

There are six deep-sea ports operated by the State, namely Port Adelaide, Port Pirie, Port Lincoln, Thevenard, Wallaroo and Port Giles while overseas vessels are also accommodated at Port Stanvac, Port Augusta, Whyalla and Ardrossan.

### CONTROL OF HARBOURS

The control of State-owned harbours (including the River Murray) is vested in the Minister of Marine; he is responsible for the control of navigation within harbours and for all harbour facilities including lights, buoys, beacons, bulk loading plants and fishing boat

accommodation. In addition he is responsible for the control of the competency of masters and others in charge of intrastate vessels and fishing vessels, and the seaworthiness and safety of such vessels. Relevant legislation includes the Harbors Act, 1936-1974, the Marine Act, 1936-1976 and the Fisheries Act, 1971-1977.

**Department of Marine and Harbors**  
**Indebtedness, Revenue and Expenditure**

Year	Loan Fund Indebted- ness	Revenue	Expenditure from Revenue			Surplus (+) or Deficit (-)
			Working Expenses	Interest	Total	
			\$'000			
1972-73 .....	62 655	7 324	5 453	3 028	8 481	-1 157
1973-74 .....	67 082	10 037	6 537	3 359	9 896	+141
1974-75 .....	73 013	10 889	8 425	3 828	12 253	-1 365
1975-76 .....	80 388	10 705	9 065	4 661	13 726	-3 021
1976-77 .....	87 343	12 751	11 142	5 839	16 981	-4 230

In 1976-77 the Department of Marine and Harbors handled 6 444 357 tonnes of cargo (including general cargo at private ports) or approximately 45 per cent of the total tonnage of 14 482 869 tonnes passing through all the ports in South Australia, the balance being handled independently at the privately owned wharves.

### HISTORICAL

For a detailed description of development in the nineteenth century see pages 270-1 of the *South Australian Year Book* 1966.

#### Trend of Development

As shipping has increased through growth in trade many wharves and jetties have been strengthened or replaced by better structures. To keep most harbours open for larger vessels it has been necessary to deepen and widen navigation channels, deepen existing berths and extend jetties into deeper water. An example of this type of project was the redevelopment of Thevenard harbour, completed in 1972, which entailed the dredging of a deeper channel and the reconstruction of the jetty so that bulk carriers twice the size of those previously accommodated could be fully loaded.

Since the establishment of new soldier settlements in the 1950s, shipping to and from Kangaroo Island has increased. Additional harbour facilities were made available with the provision of a trailership berth at Kingscote for the roll-on roll-off vessel *M. V. Troubridge* which went into service in November 1961. Trailership berths were also built at Port Adelaide and Port Lincoln.

A change in the pattern of intrastate shipping has occurred with the provision of bulk handling facilities for grain at major ports progressively since 1952. These facilities are now available at Port Adelaide, Port Pirie, Wallaroo, Port Lincoln, Thevenard and Port Giles, and also at Ardrossan under agreement with the owner of the private wharf. Grain is railed or trucked overland to terminal silos and loaded aboard ocean-going vessels by

means of conveyors, so eliminating ketch trade from the smaller ports. Competition from intrastate road and rail transport has affected the larger ports as well, so that very little general cargo is carried between ports in this State.

Future developments at ports other than Adelaide are likely to be concerned primarily with bulk trades and the increasing size of bulk carriers. For example, bulk handling facilities, involving extension of an existing jetty to provide two outer berths for loading grain ships and an inner berth for unloading phosphate-rock carriers, have been completed at Port Lincoln. The phosphate-rock berth is in operation and caters for ships up to 35 000 tonnes. The first conveyor loader system was commissioned in May 1977 and the first ship loaded grain on 26 May 1977. A second ship loader, commissioned in February 1978, doubled the input capacity to 4 000 tonnes an hour. The two grain berths cater for ships up to 60 000 tonnes but could be modified for ships of 100 000 tonnes. The overall cost of the whole project (including dredging), is estimated at \$13 million.

### Development of Port Adelaide

The Greater Port Adelaide Plan, details of which were released in 1949, included proposals for twenty projects for port development over the ensuing fifty years. Among those projects were:

- (1) the improvement and extension of wharves and allied cargo facilities;
- (2) the deepening, and widening of the shipping channels and provision of larger swinging basins;
- (3) the reclamation and development of low-lying land adjacent to the port for the creation of industrial, commercial and dock estates.

Some of these projects have been completed while others are still in progress, e.g. the Port River has been deepened to 9 metres at Low Water and a swinging basin of 305 metres diameter has been provided in the inner harbour. Currently the river channel is being widened to a minimum width of 150 metres. The material dredged in this operation is being used to reclaim part of the 800 hectares of low-lying land intended to be used for industrial and commercial sites and for port extensions.

To ensure the future of Port Adelaide as a major port, a container berth, capable of accommodating the largest cellular container ships likely to serve Australia in the foreseeable future, has been established at Outer Harbor. The berth, channel and swinging basin are suitable for ships of 290 metres in length, 11 metres in working draft and a capacity of almost 3 000 containers. The approach channel has been deepened to a depth of 12.3 metres so that ships would not be delayed by tide movements. The berth was officially opened on 17 March 1977 and 10 vessels used the berth up to 30 June 1977.

Two container depots have been built by private enterprise in the dock industrial estate 800 metres from the inner harbour waterfront and offer acceptance, forwarding, packing and unpacking facilities for international and interstate containers and other unit loads: to facilitate shipment of wool in containers a large wool store and a high density wool dumping centre have been established adjacent to these depots.

An interstate roll-on roll-off terminal in No. 3 Dock was opened early in 1971 and later in the year the facilities were extended to serve larger roll-on roll-off vessels engaged in overseas trade. A berth in No. 1 Dock has been modified to provide a reinforced concrete pad for the stern-loading type of vessel operating between Port Adelaide and ports in Tasmania. Recent developments include the provision of a steel handling berth to accommodate roll-on roll-off vessels and modifications to an outer harbour berth to serve larger overseas roll-on roll-off vessels.

A two-storey building, containing a passenger terminal and cargo shed for overseas vessels at one of the outer harbour berths, was opened in October 1973. A new signal tower at the outer harbour was opened in February 1974.

## TIDES AND WATER DEPTH

Tides—the daily ebb and flow of the waters of the ocean—are brought about by the gravitational effect of the sun and moon. Spring and neap tides are associated with phases of the moon, *i.e.* spring tides with the new moon and full moon, and neap tides with the first quarter and last quarter of the moon.

All around the Australian coast there is a well-marked 'diurnal inequality'; that is, the forenoon and afternoon tides may differ considerably in height. The mean tide rises in the following table are shown as higher high water and lower high water, rather than high water springs and neaps. This method of measuring tides is used for the majority of Australian ports.

## Tides and Water Depths: South Australian Ports, 1 January 1978

Port	Maximum Depth Below Low Water Datum (a)	Tides		
		At	Mean Rise	
			Higher High Water	Lower High Water
Port Adelaide:	Metres		Metres	Metres
Outer harbour;				
Channel .....	10.1	Wharf	2.5	1.5
Wharf .....	10.7			
Inner harbour;				
Channel .....	9.1	Wharf	2.6	1.5
Wharf .....	10.7			
Ardrossan:				
Channel .....	(b)	Jetty	3.1	1.8
Jetty—BHP .....	8.2			
Port Augusta:				
Channel .....	4.9	Wharf	3.2	1.9
Wharves .....	6.1			
Port Giles:				
Channel .....	(b)	Jetty	1.9	1.5
Jetty .....	11.6			
Port Lincoln:				
Channel .....	(c)	Jetty	1.4	0.9
Wharf (Bulk Loading) .....	15.0			
Port Pirie:				
Channel .....	6.4	Wharf	2.7	1.8
Wharves .....	8.2			
Port Stanvac:				
Channel .....	(b)	Wharf	1.9	1.4
Wharf .....	10.7			
Proper Bay (BHP):				
Channel .....	9.1	Jetty	1.4	0.9
Wharf .....	10.4			

## Tides and Water Depths: South Australian Ports, 1 January 1978 (continued)

Port	Maximum Depth below Low Water Datum (a)	Tides		
		At	Mean Rise	
			Higher High Water	Lower High Water
	Metres		Metres	Metres
Thevenard:				
Channel .....	8.2	Jetty	1.7	1.1
Wharf .....	9.7			
Wallaroo:				
Channel .....	8.5	Jetty	1.4	1.0
Wharf .....	9.5			
Whyalla (BHP):				
Inner harbour;				
Channel .....	7.3	Jetty and	2.3	1.6
Wharf .....	8.5	Wharf		
Outer harbour;				
Channel—ore jetty (No.2) approach .....	10.7	Jetty and	2.3	1.6
Ore jetty (No.2) .....	11.0	Wharf		

(a) The depth shown against wharves is the greatest at present available and may be found at one berth only at the wharf or jetty concerned.

(b) No approach channel.

(c) Deep water gradually shoaling to depth at wharf.

## AERODROMES

There were twenty-nine civil aerodromes in South Australia at 30 June 1977 including nine owned and operated by the Commonwealth Government and twenty licensed aerodromes owned and operated by local authorities or private interests. In addition there are numerous authorised landing grounds which are fields prepared for the operation of aircraft but not open to public use. These fields meet Commonwealth Government specifications less exacting than those used in the development of government owned or licensed aerodromes.

Government and licensed aerodromes in South Australia are set out below.

<i>Government Owned</i>		
Adelaide	Leigh Creek	Parafield
Ceduna	Mount Gambier	Port Lincoln
Kingscote	Oodnadatta	Whyalla
<i>Licensed</i>		
Amata	Granite Downs	Mount Dare
Cleve	Indulkana	Naracoorte
Cordillo Downs	Innaminka	Pt. Pirie
Cowell	Kimba	Renmark
De Rose Hill	Loxton	Tieyon
Ernabella	Millicent	Waikerie
Fregon	Minnipa	

The main terminal in South Australia is the Adelaide Airport at West Beach, and although not an international airport it can be used by international aircraft when required.

It is on the scheduled flights of interstate services from Sydney, Melbourne, Perth, Canberra and Darwin and is the terminus of intrastate services. Since this airport was opened to commercial aircraft in February 1955, modern navigational aid systems and equipment (e.g. Australian designed visual approach slope guidance systems and long range radar) have been installed and various improvements to general airport facilities have been carried out.

Since the opening of the Adelaide Airport the aerodrome at Parafield, about 18 kilometres north of Adelaide, has been restricted principally to use by light aircraft.

Other aerodromes are situated near the larger towns e.g. Mount Gambier, Whyalla, Port Lincoln and Port Pirie. About half of the licensed aerodromes are on stations, missions, etc. in the northern part of the State.

In addition to the civil aerodromes there are two major aerodromes, one at Woomera controlled by the Department of Defence, through the Defence Research Centre, and the other at Salisbury (Edinburgh Airfield) which are used by aircraft associated with trials operations and by civil charter aircraft carrying passengers and freight. Edinburgh Airfield is also the base for a Royal Australian Air Force maritime squadron.

A joint Government Advisory Committee consisting of representatives from Commonwealth Government departments, South Australian Government departments and local government authorities has been established to consider airport requirements for the Adelaide region.

#### Control of Aerodromes

At a conference of Commonwealth Ministers and State Premiers in May 1920, it was agreed that the Commonwealth should introduce a Bill to give effect to the Convention for the Regulation of Air Navigation signed in Paris on 13 October 1919. The *Air Navigation Act 1920*, under which a Controller of Civil Aviation was appointed as head of the Civil Aviation Branch which came under the jurisdiction of the Department of Defence, had three main objectives:

- (1) generally to regulate civil aviation activities in Australia;
- (2) to carry out the provisions of the Convention on Air Navigation signed in Paris;
- (3) to apply the principles of the Convention to domestic as well as international flying operations.

Regulations were drawn up under this Act to provide, *inter alia*, for the registration and periodic inspection of aircraft, licensing of aerodromes, examination and licensing of personnel engaged in flying and in upkeep of machines, control of aircraft movements, rules of the air, etc.

The South Australian Parliament passed the Commonwealth Powers (Air Navigation) Act, 1921 in which it referred to the Commonwealth powers to make regulations in connection with international and interstate air navigation. The *Air Navigation Act, 1937* provided for the application of the Commonwealth Air Navigation Regulations to and in relation to air navigation within the State of South Australia and repealed the earlier Act.

The Commonwealth civil aviation legislation at present includes the *Air Navigation Act 1920*, the *Australian National Airlines Act 1945* and several other Acts, while the State legislation in South Australia includes the 1937 Act and the *Civil Aviation (Carriers' Liability) Act, 1962-1971*.

Civil aviation administration was a separate department under the Minister for Civil Aviation from 1939 until 1 December 1973 when it was incorporated in the Department of Transport.

### Historical

A description of early aerodromes in South Australia and development was included on pages 277-8 of the *South Australian Year Book* 1966: an article describing the first flight from England to Australia, in 1919, appeared on pages 334-5 of the *South Australian Year Book* 1969.

## 8.6 ELECTRICITY AND GAS

### ELECTRICITY

In 1946 the Electricity Trust of South Australia (ETSA), a public corporation, acquired the assets of the Adelaide Electric Supply Company and since then the Trust has been responsible for electricity supply throughout most of the State. Over the years indigenous fuels—coal from Leigh Creek and natural gas from the north-east of the State—have largely supplanted imported fuels. A detailed description of the development of electricity supply was included on pages 278-81 of the *South Australian Year Book* 1966.

### Power Generation

The Osborne 'A' station produced all of the requirements of the South Australian electricity network from 1923 until 1947 when the 'B' station commenced operations and the 'A' station was subsequently closed in 1968. At 30 June 1977 the remaining generating capacity at Osborne (excluding emergency generating plants) was 240 000 kilowatts.

A major decision by the Trust was the construction of the Thomas Playford Power Station at Port Augusta, designed to burn Leigh Creek coal exclusively. The 'A' section was completed in 1954 while the 'B' section was completed in 1964 to give a combined total generating capacity of 330 000 kilowatts.

Following the passing of the Electricity Trust of South Australia (Torrens Island Power Station) Act in 1962 work commenced on the construction of section 'A' of the Torrens Island Power Station. Section 'A' was completed in the first half of 1971 and comprises four 120 000 kilowatt turbo-generators with associated boiler equipment. Stage 1 of Section 'B' comprising two 200 000 kilowatt turbo-generators has also been completed, the second unit, coming into service in October 1976. Manufacture of the two 200 000 kilowatt turbo-generators for Stage 2 of Section 'B' is proceeding in the contractor's workshops and the boiler contractor has started the erection of the two gas/oil fired boilers. Civil construction work for the stage is in progress and the erection of structural steelwork for the main building is well advanced. When completed Section 'B' will have four 200 000 kilowatt units and this will make the combined capacity of 'A' and 'B' sections of Torrens Island Power Station 1 280 000 kilowatts.

At the Dry Creek Power Station, three gas turbine generators each with a capacity of 52 000 kilowatts have been installed to meet high load demands of short duration. Three 25 000 kilowatt gas turbine generators are to be erected at Snuggery in the South East. These generators will be fuelled by distillate and are expected to be completed by late 1978.

In order to meet future electricity demands, the Electricity Trust will build a new power station in the north of the State to burn Leigh Creek coal. After inspecting many possible sites the Northern Power Station Environment Committee recommended a site adjacent to the existing power station at Port Augusta. The Committee's recommendation has been accepted subject to the satisfactory outcome of negotiations with the Commonwealth Government on the future rail freight rate for Leigh Creek coal.



## Electricity Generation, South Australia

## Installed Capacity of Generating Plant in Power Stations at 30 June

Power Stations	1967	1970	1973	1976	1977
Electricity Trust:	kilowatts				
Osborne .....	311 525	240 000	240 000	240 000	240 000
Port Augusta .....	330 000	330 000	330 000	330 000	330 000
Torrens Island .....	120 000	360 000	480 000	480 000	880 000
Dry Creek .....	—	—	—	156 000	156 000
Mount Gambier .....	22 000	22 000	22 000	22 000	—
Port Lincoln .....	9 000	9 000	9 000	9 000	9 000
Total ETSA .....	792 525	961 000	1 081 000	1 237 000	1 615 000

## Fuels

The development of the Leigh Creek coal field and the use of this coal as a source of power freed the Trust from its relative dependence upon New South Wales coal as a fuel source. Since commissioning, the Thomas Playford Power Station at Port Augusta has used this type of fuel exclusively.

The construction of oil refineries in Australia resulted in residual oil being supplied at a price competitive with coal and, over the years, the Osborne Power Station and, more recently, the Torrens Island Power Station, have used this type of fuel.

Natural gas discoveries in the north-eastern areas of South Australia and the construction of a natural gas pipeline to Adelaide has given the Trust a further source of indigenous fuel. The six boilers at Torrens Island have been equipped to use natural gas or oil, or both fuels simultaneously. The Trust commenced using natural gas in 1969 and it uses more of this type of fuel for generation than any other electricity authority in Australia.

Because of the continuing reduction in wood waste supplies, the Trust ceased operating the Mount Gambier Power Station in October 1976 and arrangements were made for some of the plant to be taken over by the Woods and Forests Department to generate electricity for internal use.

## Electricity Trust of South Australia, Fuels Consumed in Steam Power Stations

Year	NSW Coal	Leigh Creek Coal	Oil	Wood (a)	Natural Gas
			Tonnes		Millions of MJ
1966-67 .....	51 045	2 123 459	232 674	187 687	—
1969-70 .....	3 430	2 155 239	299 180	185 629	5 673
1972-73 .....	—	1 588 735	37 893	198 496	29 040
1973-74 .....	—	1 504 839	47 691	147 210	33 048
1974-75 .....	—	1 792 144	91 758	139 071	31 256
1975-76 .....	—	1 869 073	84 183	125 375	36 663
1976-77 .....	—	1 769 668	99 198	35 134	46 698

(a) Mill waste.

### Transmission and Distribution

The Electricity Trust was specifically charged with the responsibility of expanding its services into country areas. In the immediate post-war years shortages of materials somewhat handicapped the rate of extension; however, a vigorous expansion of services in general has taken place as illustrated in the following table.

**Electricity Trust of South Australia, Transmission Lines  
At 30 June**

Rated Voltage	1967	1970	1973	1976	1977
	Route Kilometres				
275 000 volt .....	595	716	745	846	846
132 000 volt .....	2 010	2 232	2 581	2 581	2 587
66 000 volt .....	750	832	1 246	1 328	1 328
33 000 volt .....	3 410	3 499	3 487	3 602	3 659
19 000 volt (SWER) (a)....	13 591	17 083	18 694	19 734	19 906
11 000 and 7 600 volt .....	9 024	10 731	12 076	13 701	14 060
Total .....	29 380	35 093	38 830	41 792	42 386

(a) Single wire earth return system.

Electric power is transmitted over considerable distances at very high voltages and is stepped down at substations and distribution centres.

Transmission lines of 275 000 volts link power stations at Port Augusta and Torrens Island to a major substation at Para from which 275 000 volt connections radiate to Magill, Cherry Gardens and Happy Valley substations serving the Adelaide metropolitan area. A further 275 000 volt line has been built to Tailem Bend substation, which is the main supply point for the Lower Mallee and the South-East. One line from Port Augusta is tapped into a substation at Brinkworth to reinforce distribution to the mid-north area of the State.

Two 132 000 volt lines extend from Port Augusta to Adelaide and further 132 000 volt lines extend to Port Lincoln, Woomera and Leigh Creek. Other 132 000 volt lines connect Adelaide and Mannum, Cherry Gardens and Mobilong, Mannum and Tailem Bend. Two lines connect Tailem Bend and Mount Gambier.

Over the past six years, a 66 000 volt network has been extended over Eyre Peninsula and construction is now proceeding to supply, in bulk, towns as far west as Ceduna and Streaky Bay.

Extensive use of the single wire earth return system (see table above) has resulted in the supplying of electricity to country areas where consumers are so scattered that supply by conventional methods would have been impracticable.

In recent years there has been a progressive change from conventional overhead street mains to underground street mains and most new subdivisions are now being supplied with 11 000 volt and low voltage underground systems. The Electricity Trust and local government authorities share the costs of conversion from overhead to underground reticulation in areas such as parks and foreshores where aesthetic benefit to the general public would be gained. During 1976-77 the Electricity Trust approved 12 new schemes recommended by the Electricity Reticulation Advisory Committee.

In the following table the numbers of Electricity Trust consumers in the various categories are given at selected dates.

**Electricity Trust of South Australia, Number of Consumers  
At 30 June**

Consumers	1967	1970	1973	1976	1977
Residential.....	321 731	353 289	392 314	431 859	446 327
Commercial.....	38 949	41 772	43 738	45 828	46 811
Industrial.....	19 956	22 776	25 615	28 221	28 822
Bulk and traction.....	8	8	12	11	11
<b>Total.....</b>	<b>380 644</b>	<b>417 845</b>	<b>461 679</b>	<b>505 919</b>	<b>521 971</b>

The following table shows electricity sold by the Electricity Trust for the last five years.

**Electricity Trust of South Australia, Sales of Electricity  
Year Ended 30 June**

Particulars	1973	1974	1975	1976	1977
	'000 kWh				
Residential.....	1 645 603	1 737 877	1 905 615	2 025 616	2 193 993
Industrial.....	1 547 896	1 609 443	1 554 772	1 602 333	1 745 203
Commercial.....	661 036	762 019	825 685	894 795	968 860
Bulk supply.....	95 636	88 839	77 626	80 124	67 280
Street lighting.....	27 610	31 338	33 137	34 837	36 163
Mannum and Murray Bridge pipelines.....	93 230	48 219	38 218	72 985	244 748
<b>Total.....</b>	<b>4 071 012</b>	<b>4 277 735</b>	<b>4 435 052</b>	<b>4 710 690</b>	<b>5 256 247</b>

**GAS**

The South Australian Gas Company, a privately owned company regulated by State legislation, was incorporated by Act of Parliament in 1861 to supply gas to Adelaide and surrounding villages. The first gas was produced at Brompton in 1863 and subsequent plants were opened at Port Adelaide in 1866 and Glenelg in 1875.

An Act authorising a second company, the Provincial Gas Company, was assented to in 1869. This company established a metropolitan works at Thebarton in 1871 and country works were opened at Gawler, Kapunda and Strathalbyn. In 1878 this undertaking was absorbed by the South Australian Gas Company and manufacturing at the Thebarton plant ceased. The country works were kept in operation until 1917. Gas was first produced at Port Pirie in 1892.

Following the development of higher pressure distribution facilities the South Australian Gas Company was able to centralise its metropolitan production at Brompton with the Port Adelaide and Glenelg plants ceasing production in 1922 and 1923 respectively. These plants together with the earlier Thebarton works were retained as holder stations. In 1928 a new gas works was opened adjacent to the Port River at Osborne. The Osborne Works were closed for several years during the 1930s depression.

Since the 1939-45 War a considerable expansion of manufacturing capacity and distribution facilities has taken place. This is evident from the following table which gives details of capital employed, number of consumers and length of mains at 30 June in selected years.

**South Australian Gas Company: Capital, Consumers and Mains  
At 30 June**

Particulars	1940	1950	1960	1970	1977
Capital employed (\$m) (a) . . . . .	5.4	6.0	19.4	40.0	51.7
Number of consumers (b) . . . . .	61 207	84 629	121 720	186 670	231 680
Length of mains (km) . . . . .	1 455	1 677	2 525	3 603	4 570

(a) Total assets less current liabilities.

(b) Includes consumers of bottled gas.

The manufacture of gas by the carbonisation of black coal imported from New South Wales was the conventional method of production until the end of the 1939-45 War. Under this process large quantities of coke and tar are produced as by-products but a declining market for these residuals together with the development of alternative production methods has resulted in less emphasis in recent years on this method of production.

In 1948 and 1950 the company installed plant at Osborne and Brompton for the manufacture of carburetted water gas from oil distillate and coke. This plant was introduced to help meet peak winter loads and could be brought into production much more rapidly than carbonising retorts.

In 1964 the first of four reforming plants was installed at Brompton. These plants operated initially on refinery tail gases and modifications were subsequently made to enable all four plants to reform a wider range of feedstocks, including light virgin naphtha and natural gas. A similar plant was in operation at Port Pirie for reforming light virgin naphtha.

When natural gas became available, the South Australian Gas Company contracted with the producers for a supply of this indigenous fuel. All coal carbonising and carburetted water gas plants making gas for distribution in the metropolitan area were shut down and the reforming plants ceased to operate in 1971 when the conversion of all appliances to use natural gas was completed. One section of the coal carbonising plant has been retained at the Osborne Works for the manufacture of metallurgical grade coke. Gas resulting from carbonisation is used partly for heating the coal chambers, the remainder being sold.

Port Pirie is now being supplied with natural gas following the completion of a \$2.5 million pipeline in June 1976. Natural gas from the line is supplied direct to industry, including Broken Hill Associated Smelters, and to all domestic consumers since conversion of domestic appliances to natural gas was completed in October 1977.

Gas is reticulated through most of the Adelaide metropolitan area and Port Pirie. In addition liquefied petroleum gas is distributed by reticulation at Mount Gambier by the Mount Gambier Gas Company Ltd. (acquired by the South Australian Gas Company in June 1977), at Whyalla by the South Australian Gas Company, and is available elsewhere as bottled gas.

An inter-connected system of high and intermediate pressure mains traverses the metropolitan area, extending south to Hackham, north-east to Tea Tree Gully and north to Elizabeth. The pressure in these mains is reduced by means of governors for distribution to consumers.

The conversion of the metropolitan distribution system to use straight natural gas brought a marked change in the Company's operations. The Company is now concerned largely with the distribution and marketing of gas, rather than manufacturing. Great emphasis is placed on marketing gas to industry, where as a cheap, non-polluting fuel it is able to compete successfully with other fuels. This has produced the situation where industrial gas sales made up 59 per cent of all gas sold in 1977 compared with 14 per cent in 1969.

At 30 June 1977 the Company was maintaining 4 425 kilometres of mains in the metropolitan area serving 193 261 consumers with natural gas. The Port Pirie system involves 95 kilometres of mains serving 4 248 consumers. A distribution system has also been developed in Whyalla over the past seven years, and at 30 June 1977 involved 51 kilometres of mains serving 2 171 consumers. The distribution system at Mount Gambier serves 2 720 consumers. An additional 30 600 customers are supplied with liquefied petroleum gas in bottles.

## 8.7 HOUSING AND BUILDING

### HOUSING

A feature of housing development in South Australia has been the change from the use of stone to brick as the major building material. The familiar old-style stone houses are still to be seen in most settled parts of the State, especially in rural areas. The 1947 Census was the first at which houses with outer walls of brick outnumbered those with walls of stone.

The building materials used have been determined largely by the availability of building stone and deposits of clay suitable for brickmaking, and by the relative lack of natural timbers suitable for houses. In recent years brick veneer homes have become more popular, particularly in Urban Adelaide, but this is partly because of the poor building soil in some of these areas.

### DWELLINGS: CENSUS DATA

Information on housing is obtained mainly from particulars of dwellings collected at each census. For the purpose of the census a 'dwelling' is any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term 'dwelling' includes houses, home units and flats, and in addition habitations ranging from a single-roomed shack to a multi-roomed hotel or institution. Dwellings have been classified as 'private' or 'non-private'. Private dwellings include private houses, home units, shares of private houses, self-contained flats, shares of self-contained flats, rooms, apartments, sheds and huts; non-private dwellings include hotels, motels, boarding houses, lodging houses and hostels, educational, religious, and charitable institutions, hospitals and defence and penal establishments.

In some of the tables which follow, details of dwellings at the 1971 Census are given by geographical distribution. The relevant tables show totals for each section of the State only, namely:

- (a) Urban Adelaide; this area is the 'urban centre' of Adelaide.
- (b) Other Urban; includes all urban centres other than Urban Adelaide.
- (c) Rural; includes all areas not included in (a) or (b) above.

Dwelling counts from the eight censuses to 1976 are shown in the next table: figures for censuses before 1966 exclude dwellings occupied solely by full-blood Aborigines.

### Dwellings in South Australia, Censuses 1921 to 1976

Census	Occupied			Unoccupied (a)	Total Dwellings
	Private	Non-private	Total		
1921.....	104 295	3 619	107 914	4 431	112 345
1933.....	136 611	2 663	139 274	5 353	144 627
1947.....	166 118	2 420	168 538	3 547	172 085
1954.....	212 095	3 206	215 301	8 524	223 825
1961.....	259 344	2 564	261 908	17 061	278 969
1966.....	299 933	2 693	302 626	25 110	327 736
1971.....	342 064	2 048	344 112	30 553	374 665
1976.....	390 976	1 785	392 761	39 539	432 300

(a) See page 365 'Unoccupied Dwellings.'

### Occupied Dwellings

The next table gives details of occupied dwellings only, according to the class of dwelling. Private dwellings were classified into the following four categories at the 1971 Census:

*Private House*; houses (including semi-detached and terrace houses) used for dwelling purposes by a household group;

*Home Unit*; One of a group of three or more single or double storey homes, separate or joined together in sets of two or more, all occupying a common block of land;

*Other Self-contained Flat*; a part of a house or other building which can be completely closed off and which has its own cooking and bathing facilities;

*Other Private Dwelling*; includes non-self-contained flats and such sheds, huts, caravans, etc. which are occupied on a permanent or semi-permanent basis.

### Occupied Dwellings by Class, South Australia Censuses 1966 and 1971

Class of Dwelling	30 June 1966		30 June 1971		
	Total	Urban		Rural	Total
		Adelaide	Other		
<b>Private dwellings:</b>					
Private house (a).....	271 171	210 921	48 420	47 287	306 628
Home unit (a).....	n.a.	12 604	699	127	13 430
Other self-contained flat (a) ..	20 802	14 834	1 377	358	16 569
Other private dwelling .....	7 960	2 836	1 095	1 506	5 437
<b>Total private dwellings .....</b>	<b>299 933</b>	<b>241 195</b>	<b>51 591</b>	<b>49 278</b>	<b>342 064</b>
<b>Non-private dwellings .....</b>	<b>2 693</b>	<b>988</b>	<b>542</b>	<b>518</b>	<b>2 048</b>
<b>Total occupied dwellings ...</b>	<b>302 626</b>	<b>242 183</b>	<b>52 133</b>	<b>49 796</b>	<b>344 112</b>

(a) At the 1966 Census, home units were included in the 'Private house' or 'Other self-contained flat' categories.

Although tables showing characteristics of dwellings by their class at both the 1966 and 1971 Censuses have been included, intercensal comparisons of these characteristics should be made for total dwellings only.

The 1971 Census classification of private dwellings was changed from that used at the 1966 Census to distinguish those dwellings classed as home units which were shown as houses or self-contained flats in the 1966 and previous censuses. Because of this change in the classification and because there are no standard definitions of home units and flats in common usage, it is not possible to draw comparisons between statistics at the 1971 Census and earlier censuses of houses, home units and self-contained flats.

The following table shows the number of persons enumerated in each class of dwelling at the last two censuses.

**Number of Inmates by Class of Dwelling, South Australia  
Censuses 1966 and 1971**

Particulars	30 June 1966	30 June 1971			
	Total	Urban		Rural	Total
		Adelaide	Other		
<b>Persons enumerated:</b>					
In private dwellings;					
Private house (a).....	981 870	723 702	166 919	168 190	1 058 811
Home unit (a).....	<i>n.a.</i>	22 029	1 434	298	23 761
Other self-contained flat (a) ..	45 268	30 313	3 098	851	34 262
Other private dwellings .....	17 746	4 794	2 510	4 111	11 415
Total private dwellings ...	1 044 884	780 838	173 961	173 450	1 128 249
In non-private dwellings.....	47 217	28 592	9 147	5 540	43 279
Total occupied dwellings .	1 092 101	809 430	183 108	178 990	1 171 528
<b>Persons not enumerated in dwellings:</b>					
Campers-out .....	1 310	52	79	158	289
Migratory .....	1 573	..	..	..	1 890
Total population .....	1 094 984	809 482	183 187	179 148	1 173 707

(a) At the 1966 Census, home units were included in the 'Private house' or 'Other self-contained flat' categories.

The percentage of persons enumerated in private dwellings was 95.4 at the 1966 Census, and by 1971 this percentage had increased slightly to 96.1. The percentage of persons enumerated in non-private dwellings decreased from 4.3 to 3.7. Preliminary details from the 1976 Census indicate that the percentage of persons enumerated in non-private dwellings decreased further to 3.5 while private dwellings increased to 96.4.

#### Occupied Private Dwellings

There were 299 933 occupied private dwellings at 30 June 1966, and by 30 June 1971 this number had increased to 342 064 (390 976 at 30 June 1976). Characteristics of these dwellings are shown in the tables which follow.

**Occupied Private Dwellings by Number of Rooms, South Australia  
Censuses 1966 and 1971**

Number of Rooms Per Dwelling	30 June 1966	30 June 1971				Total (Including Other Private)
	Total	Private House	Home Unit	Other Self- contained Flat		
1. ....	2 672	305	273	651	3 636	
2. ....	6 151	1 416	1 940	2 792	7 496	
3. ....	13 701	6 512	5 747	6 510	19 637	
4. ....	38 259	36 721	4 816	4 866	46 756	
5. ....	133 746	158 321	512	1 085	160 110	
6. ....	66 310	68 741	88	345	69 289	
7. ....	25 209	22 544	27	132	22 786	
8 and over. ....	13 885	12 068	27	188	12 354	
<b>Total . . . . .</b>	<b>299 933</b>	<b>306 628</b>	<b>13 430</b>	<b>16 569</b>	<b>342 064</b>	
<b>Average number of rooms per dwelling . . . . .</b>	<b>5.3</b>	<b>5.3</b>	<b>3.3</b>	<b>3.3</b>	<b>5.1</b>	

**Occupied Private Dwellings by Number of Inmates, South Australia  
Censuses 1966 and 1971**

Number of Inmates Per Dwelling	30 June 1966	30 June 1971				Total (Including Other Private)
	Total	Private House	Home Unit	Other Self- contained Flat		
1. ....	32 843	30 047	6 169	5 454	44 287	
2. ....	73 259	77 482	5 252	7 082	91 147	
3. ....	55 754	58 236	1 292	2 400	62 570	
4. ....	59 539	64 046	486	1 041	66 002	
5. ....	40 460	41 951	159	376	42 694	
6. ....	21 585	20 751	50	147	21 063	
7. ....	9 294	8 275	14	46	8 382	
8 and over. ....	7 199	5 840	8	23	5 919	
<b>Total . . . . .</b>	<b>299 933</b>	<b>306 628</b>	<b>13 430</b>	<b>16 569</b>	<b>342 064</b>	
<b>Total inmates . . . . .</b>	<b>1 044 395</b>	<b>1 058 811</b>	<b>23 761</b>	<b>34 262</b>	<b>1 128 249</b>	
<b>Average number of inmates per dwelling . . . . .</b>	<b>3.48</b>	<b>3.45</b>	<b>1.77</b>	<b>2.07</b>	<b>3.30</b>	

The number of rooms includes kitchen and enclosed sleep-out, but does not include bathroom, toilet, pantry, laundry or storerooms, halls or rooms used only for business purposes. A combined living-dining room or combined kitchen-living or kitchen-dining room was counted as one room.



The largest increase in the five-year period was in five-roomed dwellings. In 1966 five-roomed dwellings were 44.6 per cent of all occupied dwellings; by 1971 this percentage had increased to 46.8. The total increase in private dwellings was approximately 42 100 and 26 400 of these were five-roomed dwellings.

The average number of occupants per occupied private dwelling had fallen progressively from 4.03 in 1933 to 3.65 in 1947 and to 3.49 in 1954. The figures then rose slightly to 3.54 in 1961, fell to 3.48 in 1966, and continued to fall in 1971 and 1976 when the occupancy rates were 3.30 and 3.07 respectively.

The following two tables give details of occupied private dwellings by the type of occupancy and material of outer walls respectively.

The number of dwellings owned, or being purchased by instalments, rose by 8.4 per cent between the 1966 and 1971 Censuses. This can be compared with an increase of 19.7 per cent over the same period in the number of dwellings being rented.

**Occupied Private Dwellings by Nature of Occupancy, South Australia  
Censuses 1966 and 1971**

Nature of Occupancy	30 June 1966	30 June 1971			
	Total	Private House	Home Unit	Other Self- contained Flat	Total (Including Other Private)
Owner, purchaser by instalments .....	215 602	226 432	3 418	2 076	233 715
Tenant of Housing Trust ...	27 636	31 477	1 516	1 137	34 174
Tenant of employer .....	<i>n.a.</i>	9 973	106	323	10 502
Tenant, other .....	50 719	26 820	7 891	12 128	49 138
Other .....	4 154	7 856	212	490	9 131
Not stated .....	1 822	4 070	287	415	5 404
<b>Total .....</b>	<b>299 933</b>	<b>306 628</b>	<b>13 430</b>	<b>16 569</b>	<b>342 064</b>

**Occupied Private Dwellings by Material of Outer Walls, South Australia  
Censuses 1966 and 1971**

Material of Outer Walls	30 June 1966	30 June 1971			
	Total	Private House	Home Unit	Other Self- contained Flat	Total (Including Other Private)
Brick .....	161 919	183 784	11 398	12 452	209 231
Brick veneer .....	14 414	18 613	554	330	19 558
Stone .....	59 849	52 927	634	2 227	56 679
Concrete .....	18 540	8 742	473	805	10 154
Timber .....	13 789	13 160	76	173	13 833
Metal .....	6 692	6 244	42	141	7 785
Fibro-cement .....	23 542	22 253	228	412	23 128
Other .....	1 188	905	25	29	1 696
<b>Total .....</b>	<b>299 933</b>	<b>306 628</b>	<b>13 430</b>	<b>16 569</b>	<b>342 064</b>

At the 1971 Census 61 per cent of all occupied private dwellings had outer walls of brick, as compared with 54 per cent at the 1966 Census. Dwellings of stone walls decreased from 20 per cent of all occupied private dwellings in 1966 to 17 per cent in 1971.

The proportions of occupied private dwellings that were stated to have gas and/or electricity remained approximately the same (99 per cent) at both censuses. However, the proportion of occupied private dwellings having electricity only increased by 14 per cent from 1966 to 1971.

**Occupied Private Dwellings by Facilities, South Australia  
Censuses 1966 and 1971**

Facilities	30 June 1966		30 June 1971		
	Total	Private House	Home Unit	Other Self-contained Flat	Total (Including Other Private)
Gas only .....	771	281	6	11	570
Electricity .....	146 943	154 237	4 666	7 652	168 070
Gas and electricity .....	149 349	150 674	8 679	8 718	170 854
Neither gas nor electricity .....	1 827	493	5	3	913
Not stated .....	1 043	943	74	185	1 657
<b>Total .....</b>	<b>299 933</b>	<b>306 628</b>	<b>13 430</b>	<b>16 569</b>	<b>342 064</b>

At the 1966 and 1971 Censuses each householder was asked to state the number of motor vehicles (excluding motor cycles, scooters and tractors) used by members of that household that were garaged or parked at or near that dwelling on Census night. Data were obtained only for private dwellings.

**Occupied Private Dwellings by Number of Motor Vehicles, South Australia  
Censuses 1966 and 1971**

Number of Vehicles	30 June 1966		30 June 1971		
	Total	Private House	Home Unit	Other Self-contained Flat	Total (Including Other Private)
No vehicles .....	58 264	44 264	5 786	4 994	56 964
One vehicle .....	155 999	156 360	6 210	9 029	173 834
Two vehicles .....	58 880	75 710	976	1 718	78 907
Three vehicles .....	15 197	19 038	69	246	19 477
Four or more vehicles .....	5 770	7 625	36	126	7 861
Not stated .....	5 823	3 631	353	456	5 021
<b>Total .....</b>	<b>299 933</b>	<b>306 628</b>	<b>13 430</b>	<b>16 569</b>	<b>342 064</b>

**Unoccupied Dwellings**

Unoccupied dwellings include vacant dwellings available for sale or renting, dwellings such as weekenders or holiday homes and seasonal workers quarters which were not occupied on Census night; dwellings normally occupied but whose occupants were temporarily absent on the night of the Census; newly completed dwellings where owners or tenants had not entered in to occupation on Census night; dwellings described as 'to be demolished', 'condemned', 'exhibition home', etc.; and buildings constructed as dwellings but used for non-dwelling purposes on the night of the Census.

**Reason for being Unoccupied by Class of Unoccupied Private Dwellings  
South Australia, Census 1971**

Reason Unoccupied	Class of Dwelling				Total
	Private House	Home Unit	Other Self-contained Flat	Other Private	
For sale . . . . .	1 900	120	95	3	2 118
To let . . . . .	1 625	75	767	101	2 568
Newly built . . . . .	1 335	147	312	2	1 796
Vacant for repair . . . . .	1 296	10	77	12	1 395
Holiday house . . . . .	9 056	147	319	162	9 684
Condemned . . . . .	1 313	5	36	17	1 371
Temporarily vacant . . . . .	6 686	420	757	156	8 019
Other reasons . . . . .	2 770	37	85	35	2 927
Not stated . . . . .	572	21	56	26	675
<b>Total . . . . .</b>	<b>26 553</b>	<b>982</b>	<b>2 504</b>	<b>514</b>	<b>30 553</b>

**BUILDING****BUILDING CONTROL**

The Building Act, 1923-1965 (the repealed Act) gave local government authorities power to control building operations within their municipality or district. This power was not automatic but followed a request from a local government authority for all, or a specified portion, of its area to be brought under the Act. The Building Act, 1970-1976 has brought each area of a local government municipality or district within the State under the provisions of the Act. However, the Act provides that any council to the area of which, or portion of the area of which, the repealed Act did not apply may petition the Governor for a proclamation that the Act (or any specified portion of the Act) shall not apply within its area or portion of its area. In local government areas outside the jurisdiction of the Act certain provisions under the Local Government Act, 1934-1978 apply.

Persons wishing to erect or alter buildings on land within an area to which the Building Act applies are required to submit to a building surveyor appointed by the local government authority details and plans of the work proposed and to receive written approval before commencing operations. Authorities concern themselves with such things as location of buildings, the materials used, the height of ceilings and the provision of ventilation and drainage. They have the power to disapprove building work only where such work does not comply with the requirements of the Building Regulations, 1973-1977, subject to a right of appeal to building referees. Following the approval of the building

work, local government building inspectors normally visit the construction site to inspect footings and foundations and may visit the site at other times to check that council requirements are being met.

In addition to administering the general site and structural requirements of the Act, councils could, under the repealed Act, make by-laws prescribing, *inter alia*, the minimum size of building allotments (which may have been higher than those prescribed in the Act), the minimum sizes of houses, etc. One of the most important by-laws enabled the defining of particular areas or zones within which the nature of buildings and their use may be restricted. Thus certain areas may be proclaimed residential areas with industrial and commercial premises, beyond those already in existence, prohibited; other areas were designated as commercial or industrial zones.

In all local government areas which are subject to an authorised development plan under the Planning and Development Act, 1966-1978, the provisions of the above by-laws have no effect and are invalid. During 1971 the Builders Licensing Act, 1967-1976 came into force with provisions for the licensing of builders. The Builders Licensing Board of South Australia was established under the Builders Licensing Act, 1967-1976 to issue, subject to the provisions of the Act, general builders' licences, provisional general builders' licences and restricted builders' licences to applicants.

### BUILDING OPERATIONS

Details of building operations in South Australia are compiled from returns collected from all builders of new dwellings and new other building valued at \$10 000 and over. The statistics relate only to buildings as distinct from other construction activity such as roads, bridges, earthworks and water storage. Alterations and additions of \$10 000 and over to existing buildings other than dwellings are included with new buildings but those to dwellings from 1973-74 are shown as a separate item.

All values shown exclude the value of land and unless otherwise stated represent the anticipated or actual value of buildings upon completion.

#### Building Approvals

The following table shows the value of new buildings, and alterations and additions valued at \$10 000 and over on completion for which approval was given during 1975-76 and 1976-77.

#### Buildings Approvals, South Australia

Type of Building	1975-76			1976-77		
	Private	Govt	Total	Private	Govt	Total
			\$'000			
New houses .....	274 162	19 507	293 669	261 800	33 210	295 010
New other dwellings .....	59 607	6 969	66 575	49 328	11 707	61 035
Alterations and additions to dwellings (a) .....	12 139	21	12 160	17 957	187	18 144
Hotels, etc. ....	6 117	331	6 447	8 642	200	8 842
Shops .....	8 886	69	8 955	12 841	218	13 059
Factories .....	12 741	2 871	15 611	20 670	1 140	21 811
Offices .....	11 239	13 122	24 361	20 264	11 285	31 549
Other business premises .....	10 994	9 043	20 037	29 971	12 429	42 399
Education .....	2 917	38 149	41 067	2 859	40 472	43 331
Religion .....	2 913	—	2 913	3 932	—	3 932
Health .....	8 905	11 629	20 534	11 307	88 752	100 059
Entertainment, recreation .....	6 218	938	7 156	5 703	181	5 883
Miscellaneous .....	3 477	4 345	7 823	4 496	9 425	13 920
Total value of all buildings	420 314	106 993	527 307	449 771	209 205	658 975

(a) Valued at \$10 000 and over.

In addition to information on permits issued to private persons and organisations for building in areas subject to building control, particulars have been included of buildings known to be projected or to have started in areas outside building control and details of contracts let or expenditure authorised by government and semi-government authorities.

In using approvals as an indicator of building activity it should be noted that certain projects may be cancelled, delayed or altered and resubmitted for approval, that large projects may be spread over a number of years, and that building costs may vary over the period of construction.

### Buildings Under Construction

At the end of 1976-77 new buildings with an anticipated value when completed of \$409 591 000 were in the process of construction, with work done on these buildings valued at \$215 193 000. There were 4 760 houses and 2 404 other dwellings in the course of construction, having an anticipated value when completed of \$192 915 000.

### Value of Work Done

Possibly the best measure of building activity is that of value of work done, *i.e.* of work actually carried out on buildings during the period. Information on the value of work done on owner-built houses is not collected; however, an estimate based on the value of houses commenced, completed and under construction is calculated and this amounted to \$14.7 million, \$28.4 million and \$44.6 million in the years 1974-75, 1975-76 and 1976-77 respectively. The estimated values of work done on owner-built houses are included in the following table.

#### Buildings: Value of Work Done, South Australia

Type of Building	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Houses (a)	120 351	146 352	165 261	244 471	325 272
Other dwellings (a)	30 834	38 092	49 981	61 130	68 137
Total dwellings	151 184	184 444	215 241	305 600	393 409
Alterations and additions to dwellings	(a)	2 215	4 004	7 178	15 087
Hotels, etc	4 689	4 602	3 853	5 613	4 275
Shops	6 409	15 269	12 105	12 820	15 140
Factories	17 981	18 621	28 780	21 795	35 699
Offices	17 630	19 472	31 369	39 890	39 895
Other business premises	12 742	12 110	11 137	15 694	23 049
Education	23 968	25 395	56 281	48 176	37 550
Religion	1 008	646	1 064	1 658	3 538
Health	12 637	12 490	19 803	24 055	31 907
Entertainment, recreation	8 469	6 434	6 214	11 053	11 613
Miscellaneous	5 561	11 447	8 676	5 560	9 358
Total buildings	262 277	313 146	398 525	499 091	620 519

(a) New dwellings and alterations and additions valued at \$10 000 and over to dwellings are tabulated separately from 1973-74. Semi-detached houses and cottage flats are included with 'houses' before July 1973 and 'other dwellings' from 1973-74.

### Buildings Commenced

A building is recorded as commenced when work on the foundation has begun. In the following table, commencements during 1975-76 and 1976-77 have been classified according to ownership at the date of commencement. Almost all houses recorded under the 'Government' heading were being built for the South Australian Housing Trust, many of them being intended for sale on completion.

Buildings Commenced, South Australia<sup>(a)</sup>

Type of Building	1975-76			1976-77		
	Private	Govt	Total	Private	Govt	Total
	\$'000					
New houses	242 911	27 298	270 209	273 010	33 007	306 017
New other dwellings	48 982	8 302	57 284	52 170	14 119	66 289
Alterations and additions to dwellings (b)	7 345	27	7 372	15 822	36	15 858
Hotels, etc.	5 037	81	5 117	7 223	568	7 791
Shops	11 200	1 477	12 677	18 655	1 427	20 081
Factories	13 281	6 716	19 996	20 505	9 720	30 226
Offices	8 730	5 982	14 712	25 984	13 410	39 393
Other business premises	8 694	12 124	20 819	14 080	1 110	15 189
Education	3 806	35 125	38 932	10 280	24 954	35 235
Religion	2 705	—	2 705	3 012	—	3 012
Health	4 426	15 828	20 253	12 835	19 225	32 060
Entertainment, recreation	5 377	2 767	8 144	7 098	2 182	9 280
Miscellaneous	3 200	2 751	5 951	3 927	8 386	12 312
Total value of buildings	365 693	118 477	484 171	464 601	128 144	592 745

(a) Anticipated completion value.

(b) Valued at \$10 000 and over.

## Buildings Completed

Details of buildings completed and new dwellings completed for the years 1972-73 to 1976-77 are given in the next two tables. A building is regarded as having been completed when the contractor has fulfilled the terms of the contract or in the case of an owner-built house when the dwelling is either completed or occupied, whichever occurs first. However, the value in all cases is that of the building as a finished product.

## Buildings Completed, South Australia

Year	Number of Dwellings		Value of Buildings				
	Houses (a)	Other Dwellings	Houses (a)	Other Dwellings	Alterations and Additions to Dwellings	Other	Total
1972-73	8 977	4 217	110 357	30 333	\$'000 (b)	114 702	255 394
1973-74	8 952	3 955	131 839	35 644	1 748	103 067	272 296
1974-75	9 071	3 802	166 744	44 916	3 618	152 123	367 403
1975-76	9 921	4 032	221 287	61 462	6 813	189 216	478 778
1976-77	12 112	3 275	322 569	64 921	14 016	197 437	598 943

(a) Before 1973-74 included semi-detached houses and cottage flats; these are now included with 'other dwellings'.

(b) Before 1973-74 alterations and additions to dwellings valued at \$10 000 and over were included with new dwellings.

Number of New Dwellings Completed, South Australia<sup>(a)</sup>

Type of Dwelling	1972-73	1973-74	1974-75	1975-76	1976-77
<b>Private:</b>					
Contract-built houses (b)	7 117	7 540	7 245	7 520	9 548
Owner-built houses (c)	413	587	638	922	1 026
Total houses (b)	7 530	8 127	7 883	8 442	10 574
Other dwellings	4 039	3 460	3 303	3 254	2 597
Total private dwellings	11 569	11 587	11 186	11 696	13 171

Number of New Dwellings Completed, South Australia<sup>(a)</sup> (continued)

Type of Dwelling	1972-73	1973-74	1974-75	1975-76	1976-77
<b>Government:</b>					
Houses (b) .....	1 447	825	1 188	1 479	1 538
Other dwellings .....	178	495	499	778	678
<b>Total government dwellings ..</b>	<b>1 625</b>	<b>1 320</b>	<b>1 687</b>	<b>2 257</b>	<b>2 216</b>
<b>Total all dwellings .....</b>	<b>13 194</b>	<b>12 907</b>	<b>12 873</b>	<b>13 953</b>	<b>15 387</b>

(a) Before 1973-74 alterations and additions to dwellings valued at \$10 000 or over were included with new dwellings.

(b) Before 1973-74 included semi-detached houses and cottage flats; these are now included with 'other dwellings'.

(c) Owner-built houses are houses erected without services of contractor for whole job.

The value of buildings, other than dwellings completed over the same period is shown below. Included under 'other business premises' are service stations, warehouses and communication buildings and under 'miscellaneous' are defence establishments, buildings for law and order, and certain institutional premises.

## Value of Buildings Other Than Dwellings Completed, South Australia

Type of Building	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Hotels, etc. ....	3 779	4 682	5 085	5 118	4 850
Shops .....	4 633	13 930	10 967	14 468	10 879
Factories .....	12 529	20 603	21 684	19 619	35 211
Offices .....	14 118	12 484	25 824	34 471	47 196
Other business premises .....	25 996	11 497	9 323	15 829	23 761
Education .....	23 570	17 810	33 514	67 628	37 007
Religion .....	897	752	758	1 639	3 202
Health .....	16 808	10 191	22 442	16 234	12 126
Entertainment, recreation .....	8 767	3 114	9 889	8 256	14 371
Miscellaneous .....	3 605	8 004	12 639	5 951	8 832
<b>Total .....</b>	<b>114 702</b>	<b>103 067</b>	<b>152 123</b>	<b>189 216</b>	<b>197 437</b>

## New Houses—Material of Outer Walls

A plentiful supply of clay and building stone together with a paucity of suitable timbers in South Australia resulted in more houses being built of solid construction than brick veneer or other construction until 1974-75. In 1976-77 brick veneer houses constituted 49 per cent of commencements. Although a large proportion of brick veneer houses are built by the South Australian Housing Trust a wider acceptance of this type of construction is indicated by the increasing number being erected by private contractors.

In the following table new houses are classified according to the materials used in the outer walls.

New Houses: Material of Outer Walls, South Australia<sup>(a)</sup>

Year	Brick, Concrete, Stone		Brick Veneer and Stone Veneer		Asbestos-cement		Other	
	Number	Value	Number	Value	Number	Value	Number	Value
		\$'000		\$'000		\$'000		\$'000
COMMENCED								
1972-73	5 796	83 412	3 610	42 101	812	6 706	101	928
1973-74	4 905	89 396	3 723	55 737	936	9 307	159	1 805
1974-75	3 273	78 696	3 479	61 651	1 467	19 210	101	1 579
1975-76	4 072	116 145	5 522	122 232	1 654	27 187	239	4 646
1976-77	3 298	113 083	5 941	155 811	1 597	30 915	281	6 209
COMPLETED								
1972-73	5 064	68 956	3 060	34 345	756	6 180	97	876
1973-74	4 747	77 858	3 145	43 542	915	8 859	145	1 578
1974-75	4 116	87 994	3 633	61 377	1 224	15 844	98	1 531
1975-76	3 690	98 214	4 452	93 929	1 549	24 929	230	4 219
1976-77	3 716	120 848	6 506	164 579	1 633	31 399	257	5 742

(a) Before 1973-74 included semi-detached houses and cottage flats, and alterations and additions valued at \$10 000 and over.

## Building Employment

Details of building employment in South Australia are given in the next table. The figures are an average of the number of persons employed on four days in the year, namely at the end of September, in mid-December and at the end of March and June. They include all contractors and sub-contractors, and employees of contractors, sub-contractors and government instrumentalities, who were engaged on the construction, alteration, repair and maintenance of buildings. Excluded are persons working on owner-built houses or for contractors or sub-contractors who undertake only alterations, additions, repairs and maintenance. Persons 'actually engaged' include those temporarily laid off because of weather. Some duplications may occur as a result of frequent movement between jobs or because some persons (such as electricians) may work on several buildings which are under construction simultaneously.

## Building Employment, South Australia

Classification	1972-73	1973-74	1974-75	1975-76	1976-77
PERSONS ENGAGED					
Occupational status:					
Contractors	664	767	963	938	901
Sub-contractors	4 226	4 447	3 806	4 127	4 604
Wage earners	10 411	11 026	9 557	8 942	8 635
Trade:					
Carpenters	3 592	3 843	3 660	3 588	3 638
Bricklayers	2 449	2 620	2 176	2 106	2 163
Painters	1 322	1 365	1 219	1 166	1 244
Electricians	1 003	1 106	994	921	932
Plumbers	1 382	1 523	1 306	1 265	1 369
Builders labourers	2 096	2 202	1 935	1 955	1 809
Other	3 458	3 581	3 037	3 007	2 985
Total	15 302	16 239	14 325	14 007	14 140



The average employment figure of 14 140 for 1976-77 was made up of 7 887 persons working on new dwellings, 5 616 working on other new buildings and 637 employed on additions, alterations, repairs and maintenance.

### Location of New Dwellings

In recent years the greatest development has occurred in the local government areas of Noarlunga, Salisbury and Tea Tree Gully; during the five years 1972-73 to 1976-77, new dwellings in these areas accounted for 31 per cent of the total State completions. Of the country local government areas, Whyalla has recorded the greatest number of completions each year from 1959.

### Location of New Dwellings Completed, South Australia<sup>(a)</sup>

Local Government Area	1972-73	1973-74	1974-75	1975-76	1976-77
Brighton (C) .....	204	159	78	28	79
Burnside (C) .....	365	393	363	263	159
Campbelltown (C) .....	546	365	386	486	553
Elizabeth (C) .....	181	256	175	171	212
Enfield (C) .....	614	559	397	158	123
Glenelg (C) .....	284	130	63	32	66
Henley and Grange (C) .....	279	139	146	84	100
Marion (C) .....	552	487	520	457	790
Meadows (DC) .....	391	534	575	495	804
Mitcham (C) .....	650	592	427	347	504
Mount Barker (DC) .....	86	118	115	187	243
Mount Gambier (C) .....	186	223	186	195	270
Munno Para (DC) .....	103	129	336	271	286
Murray Bridge (DC) (b) .....	135	153	176	253	189
Noarlunga (C) .....	1 103	1 201	1 271	1 640	1 851
Payneham (C) .....	170	263	150	180	53
Port Adelaide (C) .....	243	217	157	263	399
Port Augusta (C) .....	121	108	113	116	158
Port Lincoln (C) .....	63	94	79	117	106
Salisbury (C) .....	1 597	1 373	1 288	1 567	1 621
Stirling (DC) .....	156	162	215	212	275
Tea Tree Gully (C) .....	1 354	1 367	1 083	1 254	1 573
Unley (C) .....	207	174	313	266	186
West Torrens (C) .....	515	234	259	292	155
Whyalla (C) .....	363	236	278	267	276
Willunga (DC) .....	86	107	143	184	381
Woodville (C) .....	661	652	835	1 154	873
Other (c) .....	1 995	2 503	2 761	3 024	3 160
<b>Total State .....</b>	<b>13 210</b>	<b>12 928</b>	<b>12 888</b>	<b>13 963</b>	<b>15 445</b>

(a) Dwelling units comprise houses and other dwellings plus dwellings attached to other new buildings. Before 1973-74 alterations and additions to dwellings valued at \$10 000 and over were included with new dwellings.

(b) Includes Mobilong (DC) and Murray Bridge (M) before amalgamation on 4 April 1977.

(c) Includes unincorporated areas.

(C) Municipality with city status (M) Municipality (DC) District Council

### THE SOUTH AUSTRALIAN HOUSING TRUST

The South Australian Housing Trust, which was constituted by Act of Parliament in 1936, provides houses and flats for rental and sale.

### Rental Dwellings

When the South Australian Housing Trust commenced operations in 1937 it undertook, in the words of its first Annual Report, 'the provision of accommodation necessary for decent living at low rentals for persons coming within the lower income group.' The enabling legislation confined the Trust's activities for many years to the building and letting of double-unit attached houses. Subsequent legislation provided for the construction of single-unit houses for rental and an eventual removal of statutory limitations on the capital cost of houses permitted the construction of larger single-unit houses. At 30 June 1977 the Trust had completed 38 090 dwellings for rental.

In 1952 Trust rental accommodation was expanded with the construction of the first flats for single persons and for married couples without young children. Originally only two-storey flat developments were built; since 1953, however, three-storey flats and single-storey villa flats have also been constructed. At 30 June 1977 the Trust had built 2 346 flat units, of which 2 268 were for rental. In 1954 construction of small groups of cottage flats for elderly persons began on five sites in the metropolitan area. At 30 June 1977, 2 715 of these units had been built; 867 for charitable organisations and 1 848 for rental by the Trust.

### Dwellings for Sale

Since the inception of its program of building houses for sale in 1946, the Trust has greatly expanded its operations in this area. Under the original scheme, purchasers were required to provide their own finance, either from a lending institution or from their own resources. Since 1952, however, the Trust has been able to advance money on second mortgage. During the year ended 30 June 1977, 947 houses were completed and sold throughout the State under the bank finance sales scheme.

In addition, under the rental-purchase scheme established in 1962, houses were made available for a minimum deposit of \$100 under an agreement to purchase. In January 1977 the minimum deposit was increased to \$500 and at the end of June 1977, 7 567 houses had been sold under these agreements.

Details of dwellings completed by the Trust since its inception, both for rent and for sale, are given in the following table.

South Australian Housing Trust, Number of Dwellings Completed<sup>(a)</sup>

Period	Dwellings				Rural Dwellings including Soldier Settlers	Total
	Single Units	Double Units (b)	Cottage Flats	Other		
1937-1972	39 466	(c) 25 283	2 141	1 834	1 234	69 958
1972-73	869	417	158	174	—	1 618
1973-74	812	281	104	142	—	1 339
1974-75	1 118	269	121	81	—	1 589
1975-76	1 506	630	56	84	—	2 276
1976-77	1 473	505	135	31	—	2 144
Total	45 244	27 385	2 715	2 346	1 234	78 924

(a) Excludes emergency and temporary dwellings.

(b) Number of individual dwelling units.

(c) Includes a small number of triple-units.

The Trust provides a variety of sizes and designs for sale houses, depending on cost, location, and availability of building materials. Houses are provided for primary producers on their own land and for employees of State Government departments at the request of the departments concerned.

The Trust's early activities concentrated on the provision of rental and sales dwellings in small groups. The expansion of its activities has led the Trust into the more complex areas of town planning and urban development. At Elizabeth, twenty-seven kilometres north of Adelaide, a comprehensive development including a wide range of houses for sale and houses and flats for rent has grown into a city, complete with commercial and industrial areas. A similar major development is well under way at Noarlunga and there are also several other areas throughout the State where the Trust is helping to provide housing in close proximity to employment.

Most of the funds used to finance the building operations of the Trust are borrowed either from the State Government under the Housing Agreement or from semi-government borrowings arranged in conjunction with the State Treasury. Details of funds employed, and of the revenue and expenditure of the Trust in recent years are given in Part 11.4 Public Corporation Finance.

### **Special Rental Houses**

Under the terms of the *Housing Agreement Act 1973*, advances may be used to purchase and renovate older houses in order that they can be let to needy families. This scheme has enabled the Trust to increase its stock of rental houses especially in the City of Adelaide, and inner urban and industrialised areas where it cannot build many new houses because of the lack of vacant land. To 30 June 1977 the Trust had purchased a total of 923 of these dwellings.

### **Housing for Aboriginals**

In March 1973, the Trust took over responsibility for the Aboriginal Funded Program in South Australia and the 196 houses maintained under the scheme.

Encouraged by the Department of Aboriginal Affairs and the local Aboriginal Committee, the Trust in April 1974 took the step of reforming the then Aboriginal Housing Policy Committee. The new structure allowed five Aboriginal people elected by the Adelaide community to join the three Departmental representatives namely, Department for Community Welfare, Department of Aboriginal Affairs, and the Trust.

In July 1975, a further restructuring took place, principally to give greater representation to country areas. As a result, the Aboriginal Housing Board of South Australia was formed, followed soon after by the first five Housing Management Committees in regional areas of the State.

There are presently eight Housing Management Committees in South Australia and these are elected only by the local Aboriginal community. Each Committee is represented on the Aboriginal Housing Board which also has representation from the Trust, Department for Community Welfare, Department of Aboriginal Affairs, and Aboriginal Hostels Limited. These Committees make policy and administrative decisions. The administration and performance is carried out within the Trust.

The Trust's main roles comprise the supplying of houses either by way of purchase and the upgrading of existing houses, the erection of new houses, sometimes in remote areas by supplying transportable pre-made houses, maintenance, rent collection, the processing of applications and the like. A special Trust section has been established to handle these operations and its staff includes Aboriginal people.

The Aboriginal Housing Board is responsible for overall policy, the allocation of capital funds, over-seeing the operations of Management Committees, specifying numbers of houses to be purchased in each region, setting rent levels, policies on rent arrears, maximum purchase price, conditions of tenancy and conditions of eligibility.

From the outset of the scheme, the decision was made to purchase existing houses rather than erect new dwellings. It is considered that buying in preference to building has many social advantages. For instance, it allows people to choose the area in which they wish to live. This naturally gives wide choice and if the program was dependent on new buildings this choice would be very limited. It also avoids the concentration of welfare tenants in particular areas.

There are now 684 houses administered under the Funded Scheme. In 1976-77 eighty-six houses were purchased and a total of 263 Aboriginal families were accommodated in Funded Houses. A purchase program designed specifically for Aboriginal people was introduced during 1976-77 and by 30 June 1977, five families had contracted to buy the homes they occupied.

### **Industrial and Commercial Properties**

The Trust is involved in the construction of industrial and commercial properties to assist in the State's development. The construction or purchase of factories by the Trust requires the recommendation of the Industries Development Committee and the consent of the Governor. The factories are usually leased with a right of purchase.

During 1976-77, the Trust completed extensions to two existing industrial premises. Building work also commenced on a new factory and extensions to another.

In the commercial field two major projects were completed during 1976-77; these projects were both located in the Elizabeth City Centre and comprised a large discount department store and a twin cinema complex. The Trust also commenced construction of a new department store and four shops at the Centre and continued the upgrading of smaller Trust shopping centres.

At 30 June 1977, the number of shops let by the Trust was 396 and the total number of factories occupied was fifty-five.

## **HOUSING AGREEMENTS**

In July 1953 the South Australian Government became party to an agreement already existing between the Commonwealth and certain other State Governments under which the Commonwealth Government made substantial loans to the States for the provision of housing. The initial agreement was renewed in 1956, 1961 and again in 1966 for a further five years.

Under the Housing Agreement the Commonwealth Government made advances to the State for the erection of dwellings by the South Australian Housing Trust and for the provision of finance for home builders by means of loans, through the Home Builders Fund, to the State Bank and certain building societies. At least thirty per cent of the funds provided had to be channelled through the Home Builders Fund.

The Housing Agreement was terminated on 30 June 1971 and new legislation, the *States Grants (Housing) Act 1971*, operated from 1 July 1971. Advances made pursuant to the terminated Agreements are repayable with interest by the States over fifty-three years.

From 1 July 1971, the States were responsible for financing their housing programs from Loan allocations but, under the new legislation, received Commonwealth Government assistance by way of grants towards the debt charges involved. In terms of the *States*

*Grants (Housing) Act 1971*, which prescribed the arrangements and conditions, South Australia was to receive grants of \$14 107 500 in respect of each of the five years from 1971-72 to 1975-76, payable over a period of thirty years. However, because of new arrangements (*Housing Agreements Act 1973*) effective from 1 July 1973, this State only received the grants of \$14 107 500 in respect of each of the years 1971-72 and 1972-73.

Under arrangements discussed and agreed to at the June 1973 Premiers' Conference, the Commonwealth Government entered into an agreement with each State, under which the States will receive advances for welfare housing purposes during the five years 1973-74 to 1977-78; these advances are to be outside, and in addition to, the State's Loan Council programs. The *Housing Agreements Act 1973* was passed by Parliament in the autumn session of 1973. Advances made under the Agreement will be repaid, with interest, over fifty-three years. During 1976-77 the Commonwealth Government advanced to the State \$56 360 000 in accordance with the Agreement. Advances totalling \$58 460 000 will be made available in 1977-78. Because of the re-introduction of a direct interest concession, the *States Grants (Housing) Act 1971* was amended by the *States Grants (Housing) Act 1973*.

#### Advances for Housing, South Australia

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
	\$'000				
Advances for year (a):					
Housing Trust . . . . .	14 500	15 500	33 560	33 560	33 560
Home builders accounts	15 500	17 250	22 800	22 800	22 800
Total . . . . .	30 000	32 750	56 360	56 360	56 360
Liability at end of year (b):					
Housing Trust . . . . .	145 555	159 732	191 959	225 531	259 226
Home builders accounts	113 375	129 796	151 648	173 351	194 896
Total . . . . .	258 929	289 528	343 607	398 882	454 122

(a) Advances in 1972-73 are allocations included under the States' Loan Council borrowing program; advances for other years are made under Housing Agreements.

(b) Under Housing Agreements only.

#### HOME SAVINGS GRANT SCHEME

Under the Commonwealth Government's Home Savings Grant Scheme, which commenced on 1 January 1977, tax-free grants may be paid to first home acquirers irrespective of their age or marital status, provided they have a right of permanent residence in Australia. There is no upper limit to the cost or value of the home.

A grant of up to \$667 may be payable if the person has held savings in acceptable form for one complete year before signing a contract to buy or build a home, or commencing construction as an owner-builder. Similarly, savings held for two complete years could qualify for a grant of up to \$1 333, and for three complete years grants of up to \$2 000 may be paid. Grants are made on the basis of \$1 for every \$3 saved.

The savings period must commence on or after 1 January 1976, but there is provision in the Act for savings held on 31 May 1976 to be deemed to have been held since 1 January 1976. This assists those who, during the early phases of the Scheme, may not have been saving in an acceptable form before the Government's announcement of its intention to introduce the legislation. Acceptable forms of savings include savings bank deposits, fixed

deposits with trading banks, savings with registered building societies and credit unions, payments made for land on which the home is being built and for building materials, and deposits paid in connection with the home.

Persons who entered into a contract before 1977 to buy or build their first home may be eligible for a grant under a previous scheme if the value of the home did not exceed \$22 500.

#### DEFENCE SERVICE HOMES SCHEME

The Defence Service Homes Scheme is administered by the Defence Service Homes Corporation.

The Scheme originated in the War Service Homes Commission which was set up in 1919 to help provide homes for ex-servicemen and their dependants. Persons currently eligible for assistance include ex-servicemen and women of the Australian Forces and Nursing Services who were enlisted, or appointed for or employed on active service outside Australia in the 1914-18 War, the 1939-45 War, Korea, Malaya or Vietnam, or in any other areas as specified from time to time by the Commonwealth Government. In addition, National Servicemen and Permanent Members of the Force may be eligible if their period of service did not cease before 7 December 1972.

Also eligible are certain other ex-service personnel who served in British Forces and who were resident in Australia before enlistment, and certain members of the Mercantile Marine Services. Assistance may also be granted to the widow or in some cases to the widowed mother of an eligible person, and to a representative of an approved welfare organisation who, subject to certain conditions, served outside Australia on or after 3 September 1939 with a body, contingent or detachment of the Australian Forces.

Assistance is given for building a home, in purchasing a new or existing home, or in discharging a mortgage which has been arranged with the prior approval of the Corporation. In certain circumstances a person who has not received the maximum loan may receive a further loan to undertake certain additions. The maximum loan available is \$15 000 and the interest rate is 3% per cent for the first \$12 000 lent and 7% per cent on the balance of loan above \$12 000.

#### Defence Service Homes Scheme, South Australia

Year	Activities During Year		Advances Outstanding at End of Year	
	Homes Provided	Capital Advanced	Number	Amount
		\$'000		\$'000
1972-73 .....	685	6 208	16 618	80 504
1973-74 .....	804	10 580	16 747	84 354
1974-75 .....	853	12 000	16 909	91 042
1975-76 .....	745	10 490	16 778	95 398
1976-77 .....	597	9 384	16 582	99 174

#### HOUSING LOANS INSURANCE CORPORATION

The Housing Loans Insurance Corporation was established by the *Housing Loans Insurance Act 1965* to administer the Commonwealth Government's Housing Loans Insurance Scheme under which approved lenders may be insured against losses arising from the making of housing loans. The Corporation consists of a Chairman (who is also

Managing Director) and a Deputy Chariman, who are full-time members, and three part-time members, all of whom are appointed by the Governor-General.

An amendment to the Act in 1977 broadened the scope of the Corporation's activities so that loans for the purchase of vacant land and commercial housing propositions are insurable as well as loans for the purchase or construction of homes for owner occupancy.

Owner occupancy loans are insurable without limit on loan amount interest rate or term. Loans for the purchase of vacant land are insurable where the borrower intends to erect his home at a later date. In the commercial field, loans for rental housing ranging from single houses or home units to multi-storey structures together with loans for the purchase and development of land and the building of project housing (including home units) are acceptable.

A once only premium is charged by the Corporation at the time the loan is made. The premium is payable by the borrower but lenders may agree to add it to the amount of the loan for repayment by the borrower over the period of the loan. With owner occupancy loans comprising 94 per cent and 95 per cent of the valuation of a home the premium is 1.4 per cent of the amount of the loan. Loans from 95 per cent to 100 per cent of valuation carry a loading of 10 per cent on the maximum 1.4 per cent rate. On loans less than 94 per cent of valuation, the premium falls progressively down to 0.25 per cent on loans of less than 76 per cent of valuation. Premium rates for the purchase of vacant land are the same as for home ownership plus a loading of 10 per cent.

The Corporation will insure a loan made to enable a borrower to buy or build a house, to buy a home unit, or to discharge an existing mortgage. Loans for alterations and extensions and loans to meet expenses of providing or improving lighting, sewerage, drainage, fences, roads, etc. are also insurable. In addition to loans secured by a registered first mortgage, there is provision for the insurance of second mortgage loans and cover is available for amortised, fixed term or five-year loans.

During 1976-77, 1 802 loans for \$43 153 000 were insured in South Australia. Comparable figures for 1975-76 were 1 635 loans for \$31 665 000.

## PART 9

# PRODUCTION

### 9.1 RURAL INDUSTRIES

Two-thirds of the area of the State, from the northern boundary down to latitude 32°S, is mainly desert and unsuitable for agriculture. The rainfall is low and erratic, coming mainly from thunderstorms, and averages less than 200 millimetres a year. High day temperatures during a large part of the year cause a very high rate of evaporation.

South of latitude 32°S is an area where the rainfall is more regular and higher; this land, mostly semi-arid, is transitional between the desert and the agricultural regions. Small areas are planted to cereals and extensive areas, adjacent to the River Murray and irrigated from the waters of the river, are devoted to horticulture and viticulture.

A third region, further south, extending as far as latitude 36°S enjoys an average annual rainfall varying according to locality between 250 and 1 250 millimetres a year and has a reliable growing season of five months or more. This is the main agricultural region of the State and is devoted to ley farming, producing wheat, barley, oats, fruit and vegetables and carrying sheep and cattle.

The south-eastern part of the State has a rainfall in excess of 500 millimetres a year but the physiography is not congenial to agriculture, most of the usable area being devoted to grazing and afforestation.

Cereal crops (of which wheat is the most important) are sown following opening rains which are normally expected in April or May. The growing season varies between districts, but generally can be considered as the eight months April to November, and good rains during this period are vital to the success of the season's harvest.



**Rural Statistics**

Most rural statistics are prepared from the annual Agricultural Census in which returns are collected from rural holdings. Particulars relate to rural operations for one complete year ended 31 March, but where harvesting of some crops (mainly fruit) has not been completed by that date, growers are asked to estimate production. An owner or occupier who works more than one holding is normally required to report details for each holding. However, where the holdings are near to one another and are in effect worked as one farm, a composite return is obtained, and is treated as covering a single holding in the district in which the main farm is situated.

The number and area of holdings in each statistical division for the past two years are shown in the following table.

**Rural Holdings: Statistical Divisions, South Australia**

Statistical Division	Holdings		Area of Holdings	
	1975-76	1976-77	1975-76	1976-77
	Number		'000 hectares	
Adelaide.....	2 627	1 921	83	67
Outer Adelaide .....	5 555	4 332	996	939
Yorke and Lower North.....	3 525	3 216	1 926	1 871
Murray Lands .....	5 397	4 853	3 986	3 735
South East .....	3 762	3 380	1 851	1 812
Eyre .....	2 303	2 153	5 618	5 558
Northern .....	1 974	1 742	49 117	49 070
<b>Total .....</b>	<b>25 143</b>	<b>21 597</b>	<b>63 577</b>	<b>63 052</b>

For 1975-76 the statistics were derived from the Agricultural Census returns, relating to approximately 25 000 holdings which utilised an area of land of ten hectares or more, for the production of agricultural products (including fruit and vegetables) or for the raising of livestock (including poultry) and the production of livestock products. Holdings of less than ten hectares were included where the legal entities operating those holdings had estimated values of operations from agricultural activity of \$1 500 or more. Details of the method used in the calculation of estimated values of operations are contained in the publication *Agricultural Sector: Part 1, Structure of Operating Units 1974-75* (Catalogue No. 7102.0) published by the Australian Statistician.

For 1976-77, the statistics have been compiled from returns from holdings where the legal entities operating those holdings have estimated values of operations from agricultural activity of \$1 500 or more.

The scope of the statistics for 1975-76 and 1976-77 differs from 1974-75 and earlier years, which included holdings of one hectare or more. Holdings of less than one hectare tended to be included where there existed intensive agricultural operations such as commercial market gardens, nurseries and poultry farms. The criteria used in 1975-76 and 1976-77 has resulted in the exclusion of a significant number of small holdings. For this reason it is not strictly valid to compare 1976 and 1977 data with previous years. However, the exclusion of small holdings does not have a great effect on statistics of total agricultural production.

### Farm Machinery

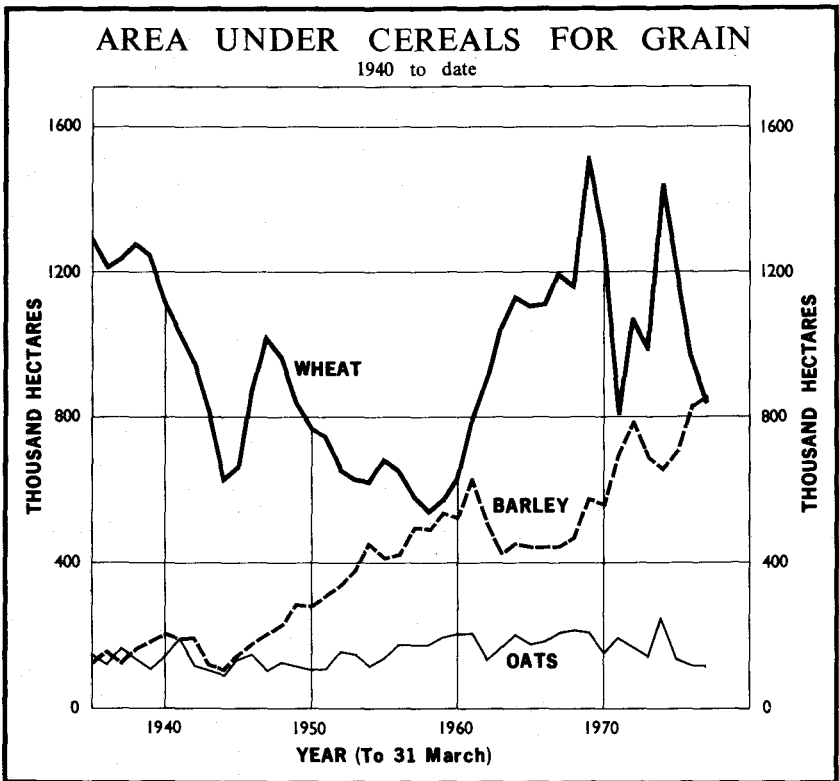
Details of farm machinery were not collected at 31 March 1977. The most recent particulars of selected farm machinery on rural holdings in South Australia are given in two tables on pages 453-4 of the *South Australian Year Book 1977*.

### Rural Employment

Statistics of rural employment were last published for 31 March 1975. A table on page 454 of the *South Australian Year Book 1977* gives particulars of permanent and temporary rural employment for the five years ending March 1975.

### AGRICULTURE

Most of the land area of South Australia is arid or semi-arid and cannot be used for agricultural production. This severe natural limitation means that even with modern farming methods only 6 million of 63 million hectares in rural holdings are devoted to cropping or permanent improved pasture.



As shown in the following table the area under crop in recent years has varied between 2.0 and 2.5 million hectares. Most of this is planted to cereals for the production of grain, hay and forage and about 57 000 hectares are used for the production of fruit and vegetables.

## Land Utilisation of Rural Holdings, South Australia

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
	'000 hectares				
Area used for:					
Crops (a) . . . . .	2 084	2 451	2 257	2 116	2 036
Sown pastures;					
Lucerne . . . . .	466	390	196	174	140
Lucerne based . . . . .	(b)	(b)	641	679	689
Clovers, grasses and medics . . . . .	2 764	3 110	2 804	2 736	2 655
Balance of holdings (c) . . . . .	60 059	58 892	57 928	57 873	57 531
Total area of holdings . . . . .	65 372	64 843	63 825	63 577	63 052

(a) Excludes duplication on account of area double cropped. Excludes pastures harvested, for hay and seed which have been included in 'Area used for sown pastures'.

(b) Not collected separately.

(c) Used for grazing, lying idle, etc.

The cereals—wheat, barley and oats—sown for grain account for about 90 per cent of the total area cropped in South Australia. In addition to hay and green forage the remainder of the area is devoted mainly to orchards, vineyards and vegetable production. Climatic conditions, particularly the relatively low winter rainfall and the dry hot summer, favour cereal growing; one advantage being the low incidence of stem rust, a serious disease in the moister areas of the Australian wheat belt.

The extent of fluctuations since 1935 in the area under the three main cereal crops is illustrated in the graph on page 380.

The area sown to the more important crops during the last five seasons is given in the following table.

## Area Sown to Principal Crops, South Australia

Crop	1972-73	1973-74	1974-75	1975-76	1976-77
	'000 hectares				
Cereals for grain:					
Wheat . . . . .	986.1	1 431.9	1 220.4	958.5	839.1
Barley . . . . .	692.1	627.3	700.7	832.0	855.4
Oats . . . . .	141.5	152.2	134.9	119.0	116.7
Rye . . . . .	15.2	17.2	10.2	7.8	12.7
Crops for hay:					
Oaten . . . . .	52.6	56.4	35.0	34.4	40.9
Other . . . . .	36.5	23.9	15.9	16.7	20.0
Crops for green forage . . . . .	88.2	71.1	59.4	54.8	58.8
Vegetables:					
Potatoes . . . . .	2.7	2.5	2.7	2.8	3.2
Tomatoes . . . . .	0.5	0.5	0.6	0.4	0.4
Other . . . . .	7.9	6.4	6.9	6.2	6.2
Fruit:					
Orchards . . . . .	16.7	16.9	16.6	16.5	15.8
Vineyards . . . . .	29.5	29.6	30.4	31.2	31.2
Other crops . . . . .	14.9	15.3	23.6	35.3	36.0
Total area of crops . . . . .	2 084.4	2 451.2	2 257.2	2 115.7	2 036.5

## IRRIGATED CULTURE

The following table shows the approximate area of all irrigated culture in South Australia for the seasons 1971-72 to 1975-76. Of the areas shown below, about 60 per cent of both orchards and vineyards and about 15 per cent of pastures are in the River Murray irrigation areas listed in the table on this page.

Area Under Irrigated Culture, South Australia<sup>(a)</sup>

Season	Orchards	Vineyards	Vegetables	Other Crops	Pasture	Total
Hectares						
1971-72 .....	12 969	15 843	6 375	977	39 914	76 078
1972-73 .....	13 126	17 160	6 248	2 028	44 586	83 148
1973-74 .....	13 211	16 973	5 599	1 434	42 960	80 177
1974-75 .....	13 263	17 987	5 888	2 396	39 414	78 948
1975-76 .....	13 132	18 387	5 601	2 205	38 569	77 894

(a) Approximations only.

The most important irrigation areas are those located in the Murray Valley. A description of the development and types of irrigation schemes along the River Murray is given in Part 8.2.

River Murray Irrigation Areas: Area of Pasture and Area and Production of Vineyards and Orchards, 1976-77<sup>(a)</sup>

Irrigation Area	Area			Production			
	Pasture (b)	Vineyards		Orchards	Vineyards		Orchards
		Bearing	Not Bearing		Total Grapes Produced	Grapes Used for Wine	Oranges and Peaches
Hectares							
Tonnes							
Upper Murray:							
Berri .....	43	1 999	134	1 045	30 466	28 005	2 060
Cadell .....	—	138	10	163	1 049	880	1 130
Cobdogla .....	11	528	23	18	9 791	9 332	101
Cooltong .....	50	191	7	296	4 231	4 033	5 842
Holder .....	14	105	21	105	2 356	2 304	1 434
Loveday .....	31	884	43	124	15 694	14 652	1 495
Loxton .....	4	1 564	49	1 136	31 015	29 015	24 098
Moorook .....	2	175	10	170	2 761	2 531	2 562
Nookamka .....	4	689	41	48	12 200	11 592	586
Ral Ral .....	79	290	26	117	3 801	3 173	110
Renmark .....	121	2 012	169	1 300	27 337	23 723	8 266
Sunlands .....	—	40	3	577	948	941	16 140
Waikerie .....	6	645	56	875	11 772	11 384	11 931
Other .....	56	359	47	853	5 965	5 475	13 666
Total .....	421	9 619	639	6 827	159 386	147 040	96 059
Lower Murray:							
Cowirra .....	378	—	—	—	—	—	—
Jervois .....	2 115	—	—	3	—	—	—
Montieth .....	715	—	—	—	—	—	—
Mypolonga .....	456	—	—	327	—	—	5 522
Neeta .....	375	—	—	—	—	—	—
Pompoota .....	617	—	—	—	—	—	—
Other .....	677	—	—	—	—	—	—
Total .....	5 333	—	—	330	—	—	5 522

(a) Excludes areas and yields of crops grown by irrigation on the River Murray and elsewhere not in the above irrigation areas. (b) Includes non-irrigated pastures.

The main crops in the Upper Murray irrigation areas are grapes, citrus fruit and stone fruit while the reclaimed swamp areas of the Lower Murray irrigation areas are used mainly for pastures.

## FERTILISERS

Nearly all soils in the agricultural areas of South Australia are deficient in phosphoric acid, and superphosphate is used on both crops and pastures in large quantities to overcome this deficiency. In some areas trace elements (manganese, copper, zinc and molybdenum) are added to the superphosphate to rectify the chronic shortage of these elements.

## Principal Crops and Pasture Fertilised, South Australia, 1976

Type of Crop	Fertiliser Used				
	Area Fertilised	Super-phosphate	Other	Total	Per Hectare
	'000 hectares	Tonnes			kg
Wheat .....	780	97 393	5 802	103 195	132.25
Barley, oats and rye .....	947	118 366	9 720	128 086	135.25
Vegetables .....	7	3 647	7 405	11 052	1 563.22
Fruit trees and vines .....	28	8 618	9 424	18 042	655.29
Other and unspecified crops .....	23	3 892	390	4 282	185.72
Total crops .....	1 785	231 916	32 741	264 657	148.27
Pasture .....	1 408	168 514	6 423	174 937	124.29
Total .....	3 193	400 430	39 164	439 594	137.70

## Use of Artificial Fertilisers: Statistical Divisions, South Australia, 1976

Statistical Division	Crops				Pastures		
	Area Fertilised	Proportion of Total Area Cropped	Fertiliser Used	Fertiliser Used per Hectare	Area Fertilised	Fertiliser Used	Fertiliser Used per Hectare
	'000 ha	Per cent	Tonnes	kg	'000 ha	Tonnes	kg
Adelaide .....	10	57.83	7 589	743.66	10	1 691	173.65
Outer Adelaide .....	103	80.42	18 260	177.92	220	30 786	140.09
Yorke and Lower North .....	477	91.62	68 487	143.61	135	15 065	111.79
Murray Lands .....	292	84.71	47 364	162.03	173	22 712	130.98
South East .....	74	75.03	12 665	172.06	682	83 746	122.87
Eyre .....	676	89.38	93 082	137.65	157	17 467	111.51
Northern .....	153	89.54	17 210	112.41	32	3 470	109.58
Total .....	1 785	87.65	264 657	148.27	1 408	174 937	124.29

## Use of Artificial Fertilisers, South Australia

Year	Crops				Pastures		
	Area Fertilised	Proportion of Total Area Cropped	Fertiliser Used	Fertiliser Used per Hectare	Area Fertilised	Fertiliser Used	Fertiliser Used per Hectare
	'000 ha	Per cent	Tonnes	kg	'000	Tonnes	kg
1972 .....	1 864	89.44	258 209	139	2 033	296 192	146
1973 .....	2 146	87.53	310 010	144	2 425	382 845	158
1974 .....	1 986	87.99	299 438	151	2 138	322 754	151
1975 .....	1 821	86.07	267 794	147	1 133	146 995	130
1976 .....	1 785	87.65	264 657	148	1 408	174 937	124

## WHEAT

Wheat has always been a crop of major importance to the economy of this State. South Australia produced 7 per cent of the Australian wheat production in 1976-77 compared with 10 per cent in 1975-76.

In the past twenty years a feature of the industry has been that average yields have fluctuated about a higher level of average yield mainly because of improved farming practices, including the adoption of nitrogen-building legumes in the rotation. The average yield per hectare for the 1976-77 season was 0.99 tonnes, a record of 1.58 tonnes being attained in 1960-61. The record wheat crop was 2 263 000 tonnes in 1968-69. Production in 1976-77 was 832 000 tonnes.

## Varieties of Wheat

In each of the Australian States a committee has been set up to examine and recommend the wheat varieties which should be grown by farmers for marketing through the Australian Wheat Board. The South Australian Advisory Committee on Wheat Quality was established in 1962. Recommendation or approval of wheat varieties is decided each year by the Committee which brings together relevant available information on breeding, testing, commercial production, handling and end usage of wheat and more particularly of specific varieties. The Department of Agriculture and Fisheries and the Australian Wheat Board encourage growers to produce wheat with uniform characteristics in both the Hard class and Australian Standard White (ASW) class and this can be done more successfully if only a few of the best varieties are grown by the farmers.

The leading varieties of wheat sown for all purposes for the last three years are shown in the following table.

Principal Varieties of Wheat Sown, South Australia

Variety	Area			Proportion of Total Area		
	1974-75	1975-76	1976-77	1974-75	1975-76	1976-77
	'000 hectares			Per cent		
Condor .....	1	17	81	0.1	1.8	9.5
Dirk .....	36	25	23	2.9	2.6	2.7
Eagle .....	53	164	113	4.3	16.9	13.3
Festiguay .....	11	42	56	0.9	4.3	6.5
Gabo .....	67	31	19	5.4	3.2	2.3
Halberd .....	763	446	310	62.0	46.0	36.3
Heron .....	59	34	24	4.8	3.6	2.8
Kite .....	1	22	78	0.1	2.3	9.2
Raven .....	46	33	26	3.7	3.4	3.1
Other .....	196	154	122	15.8	15.9	14.3
Total area .....	1 231	970	853	100.0	100.0	100.0

The Advisory Committee has divided the State into seven wheat growing zones and each year recommends to farmers only those wheat varieties which are likely to give the best results as far as the protein content of the wheat is concerned, while maintaining a high rate of yield. For 1976-77, Halberd was the main variety recommended for ASW wheat and of the hard wheats Kite was the most widely grown of the recommended varieties although a greater area was sown to the approved variety Eagle.

**Wheatgrowing Districts**

Wheatgrowing in South Australia is virtually restricted to the belt between the 200 millimetre and 450 millimetre rainfall isohyets for the period April-November inclusive. The principal wheat producing districts are in the Eyre, Yorke and Lower North, Murray Lands and Northern Divisions. These districts accounted for about 94 per cent of the area sown in 1976-77.

**Wheat Sown for Grain: Area and Production, Statistical Divisions  
South Australia**

Statistical Division	Area		Production	
	1975-76	1976-77	1975-76	1976-77
	'000 hectares		Tonnes	
Adelaide .....	1	1	1 699	745
Outer Adelaide .....	30	29	49 879	27 384
Yorke and Lower North ..	221	191	358 704	229 300
Murray Lands .....	124	99	116 410	96 991
South East .....	18	21	26 818	46 595
Eyre .....	454	410	429 931	311 493
Northern .....	111	88	155 518	119 358
<b>Total .....</b>	<b>958</b>	<b>839</b>	<b>1 138 959</b>	<b>831 866</b>

**Research**

Under the *Wheat Tax Act 1957* a tax, not exceeding fifteen cents a tonne, may be levied on all wheat delivered to the Australian Wheat Board and credited to the Wheat Research Trust Account for use by the respective State Wheat Industry Research Committees. Each committee allocates the amounts available for research and reports the expenditure approved to the Wheat Industry Research Council. The Commonwealth Government also makes contributions for wheat research, the amount being equal to the wheat tax levied from the growers. The Wheat Industry Research Council recommends the avenues of research on which this Government grant should be spent.

The wheat research funds are made available to organisations, such as the Commonwealth Scientific and Industrial Research Organization and the Department of Agriculture and Fisheries, which conduct research on wheat diseases and varieties, and on soil structure.

**Marketing***Australian Wheat Board*

The Board consists of fourteen members; four appointed by the Commonwealth Minister for Primary Industry and ten representing wheatgrowers (two from each mainland State). The Board has legislative powers over the receipt and disposal of all wheat and wheat products and issues licences to bulk handling authorities in each State to act as receivers, which gives them the responsibility for the storage, care and protection of the Board's wheat and its movement from country silos to buyers in Australia and to terminal silos for export. Under the stabilisation plan the Board is the sole authority for marketing wheat in Australia and for marketing wheat and flour for export.

In its first full season, 1939-40, the Wheat Board received 5.3 million tonnes. A record delivery of 14 million tonnes of wheat was made during 1968-69. Deliveries to the Board in 1976-77 totalled 10.9 million tonnes.

**Deliveries to the Australian Wheat Board<sup>(a)</sup>**

Season	South Australia	Australia	Season	South Australia	Australia
	'000 tonnes			'000 tonnes	
1967-68 .....	601	6 732	1972-73 ...	711	5 438
1968-69 .....	2 162	14 033	1973-74 ...	1 672	11 199
1969-70 .....	1 517	9 755	1974-75 ...	1 377	10 704
1970-71 .....	681	6 936	1975-76 ...	1 042	11 247
1971-72 .....	1 306	7 665	1976-77 ...	725	10 932

(a) Mostly in bulk, but includes weight of bags where used.

During the year ended 30 November 1977 total exports of wheat (including wheat equivalent of flour and wheat products) were 9.8 million tonnes. The value of the Wheat Board's sales on both the local and export market is shown in the following table.

**Australian Wheat Board Sales of Wheat and Wheat Flour**

Crop Year	Sales		Value	
	Local	Export	Local	Export
	'000 tonnes		\$'000	
1972-73 .....	2 242	4 137	134 369	214 961
1973-74 .....	2 319	7 418	163 499	881 427
1974-75 .....	2 394	8 560	198 002	1 078 889
1975-76 .....	1 992	8 236	194 756	946 290
1976-77 .....	1 697	9 763	175 467	923 231

**Wheat Delivery Quotas Plan**

At the instigation of the Australian Wheatgrowers Federation, the Commonwealth and State Governments agreed to the suspension of wheat delivery quotas for an indefinite period from the 1975-76 season. The action of the Federation was motivated by a barely adequate world supply and a serious depletion of carry-over stocks of wheat in recent years, the need to establish carry-over stock reserves within Australia, and because the establishment of the Wool Reserve Price Scheme has made it unlikely that woolgrowers will have to change over to wheat as a major alternative source of income.

**Bulk Handling**

The South Australian Co-operative Bulk Handling Ltd, which was incorporated on 7 December 1954, is the sole bulk grain handling authority in this State, and is owned, financed and controlled by the growers. At 31 December 1977 the Co-operative had a total storage capacity, including current contracts let, of 3.5 million tonnes (3.2 million tonnes permanent storage and 0.3 million tonnes temporary storage).



The bulk handling operations of the State have been divided into seven divisions—Ardrossan, Port Giles, Wallaroo, Thevenard, Port Lincoln, Port Pirie and Port Adelaide—each of which provides a terminal port as a shipping outlet for the country silos within the division. The bulk capacity of the respective divisions for each of the three major cereals is shown in the following table.

**Bulk Handling Capacity, South Australia**  
31 December 1977<sup>(a)</sup>

Division	Wheat		Barley		Oats	
	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary
	'000 tonnes					
Ardrossan . . . . .	148.3	—	102.1	—	—	—
Port Adelaide . . . . .	638.1	59.1	230.6	1.0	9.0	2.1
Port Giles . . . . .	24.5	—	111.8	—	—	—
Port Lincoln . . . . .	629.5	95.4	163.4	—	1.8	—
Port Pirie . . . . .	313.5	76.0	67.4	—	—	—
Thevenard . . . . .	255.7	65.9	65.4	—	1.8	7.4
Wallaroo . . . . .	345.5	—	81.9	—	—	—
<b>Total . . . . .</b>	<b>2 355.1</b>	<b>296.4</b>	<b>822.6</b>	<b>1.0</b>	<b>12.6</b>	<b>9.5</b>

(a) Includes current contracts let.

The system by which payments are made to growers changed for the 1975-76 and future seasons. Previously growers forwarded claim forms through the bulk handling authority, after the delivery of wheat. Now a claim form containing the pre-harvest information required by the Board is forwarded by each grower. The form enables the prompt payment of the first advance, on a fortnightly basis after 1 December throughout the harvest period, by directly crediting the net payments to growers' individual bank accounts.

Under the system of pooling wheat, the cost of handling wheat by the Co-operative is reimbursed by the Wheat Board.

### Grading of Wheat

To aid the Wheat Board in the marketing of wheat each season, a separate standard sample is determined for the various classes of exportable wheat produced in each State. Samples of the various classes of wheat are then packed in sealed bags and forwarded by the Wheat Board to the potential purchasers of Australian wheat.

In South Australia, the classes of wheat for which official standards are declared each season are South Australian Hard and Australian Standard White (SA). An official standard sample will also be determined for the class known as General Purpose in seasons when sufficient is available for export.

The segregation of South Australian wheat into classes was first introduced in the 1957-58 season when wheat was separated into a Semi-hard wheat class (after 1966 called Hard wheat) and into what, up to that time, was the long established FAQ (Fair Average Quality) class. This has been done in each season since 1957-58.

Test weights of the standard samples for the three classes of wheat segregated in season 1976-77 were declared as follows:

Class of Wheat	Kilograms per Hectolitre
ASW .....	81.3
Hard .....	81.8
General Purpose .....	<i>n.a.</i>

### Wheat Stabilisation Plan

Wheat grown in Australia is marketed under a stabilisation scheme approved by the Commonwealth and State Governments which provides for:

- (i) the fixing of a home consumption price for each season which may be varied annually by changes in the cost of production;
- (ii) the pooling of the proceeds from local (Australian) and overseas sales of wheat;
- (iii) the operation of a stabilisation fund into which is paid the proceeds of a tax, which is imposed on wheat exported when the average of the export prices exceeds certain specified amounts;
- (iv) the establishing of a stabilisation price each season which may involve Commonwealth Government financial contributions to the stabilisation fund, when the average export price falls below specific levels.

The current stabilisation plan will operate for five years from 1974-75 to the 1978-79 season, and contains provisions in relation to the stabilisation price which are based on different principles from those applying to the guaranteed price in previous stabilisation plans.

Under the *Wheat Export Charge Act 1974*, wheat exported is subject to a tax which is paid into the Wheat Prices Stabilisation Fund. The balance in the Stabilisation Fund may not exceed \$80 million and any surplus must be returned to the growers.

The Stabilisation Fund is used to make up deficiencies in respect of all wheat exported from each crop where the average export realisation falls below the stabilisation price. In the event of the Fund being unable to meet any deficiency the Commonwealth Government is required to meet its obligations under its guarantee, as provided in the stabilisation legislation.

### International Grains Agreements

The current agreement is the International Wheat Agreement 1971 which was due to expire on 30 June 1974 but has been extended by member nations by Protocol (a form of diplomatic document) until 30 June 1978. The current 1971 Agreement comprises two separate legal instruments known as the Wheat Trade Convention and the Food Aid Convention which are linked by a common preamble. An explanation of the terms of the current 1971 Agreement was included on page 421 of the *South Australian Year Book 1974*.

The Protocol for the extension of the Food Aid Convention to 30 June 1978 provides for a Food Aid Committee to administer contributions of international food aid of grains, grain products and cash by certain nations who are parties to that Protocol.

### Prices

The following table shows the trend in export and domestic prices of Australian wheat for the years 1972-73 to 1976-77. The export prices shown in the table are the basic selling prices for FAQ (now known as ASW) bulk wheat f.o.b., terminal ports.

## Export and Domestic Prices of Australian Wheat

Year	Export Price per Tonne (a)	Home Price per Tonne
	\$	\$
1972-73 .....	97.37	67.63
1973-74 .....	135.18	71.10
1974-75 .....	116.52	83.40
1975-76 .....	106.39	..
1976-77 .....	96.79	105.40
From 1/12/75 .....	..	98.70
From 4/5/76 .....	..	99.32

(a) Based on the average of each of the twelve monthly prices, year ended November.

## BARLEY

## Production

In 1976-77 the area sown to barley for grain in South Australia represented 37 per cent of the Australian total and yielded 31 per cent of the grain produced. Of the area sown for grain in South Australia, 98 per cent was 2-row barley, reflecting the suitability of certain areas of the State for the production of high quality malting barley. For malting purposes a plump mellow grain with fine skin coverings is required, and this can best be obtained when the ripening period is somewhat prolonged by cool conditions, without high temperature or drying winds.

Total area sown to barley in 1976-77 was 875 000 hectares, 855 000 hectares being sown for grain. A record production of barley of 1 134 000 tonnes was achieved in 1974-75. Production in 1976-77 was 889 000 tonnes.

Unlike wheat, barley growing has nearly always been confined to very suitable districts resulting in high and remarkably stable yields, the record yield being 1.62 tonnes per hectare in 1974-75.

Yorke Peninsula is the major barley-producing district in South Australia. In the 1976-77 season this area contributed approximately 20 per cent of the total crop. It has an ideal climate for barley growing as the moisture-laden breezes off the gulfs on either side retard ripening.

## Area and Production of Barley for Grain: Statistical Divisions, South Australia

Statistical Division	Area		Production	
	1975-76	1976-77	1975-76	1976-77
	'000 hectares		'000 tonnes	
Adelaide .....	4	4	7	5
Outer Adelaide .....	48	50	73	51
Yorke and Lower North .....	281	279	472	307
Murray Lands .....	182	172	152	167
South East .....	18	28	24	45
Eyre .....	241	260	281	227
Northern .....	59	63	86	86
Total .....	832	855	1 094	889

### Varieties

The most widely grown barley variety before 1970-71 was Prior, which for the three seasons ended 1969-70 averaged about 60 per cent of the total area sown. Another variety, known as Noyep, is similar to Prior but is earlier maturing and is suitable to areas where a sudden cut-off in spring rainfall is experienced.

The malting variety, Clipper, was released in South Australia to replace Prior in 1968. Reported area sown to Clipper in the 1970-71 season was 330 000 hectares, in the 1971-72 season 512 000 hectares and in the 1976-77 season 610 000 hectares. The variety has greater straw strength, much less subject to wind damage, is adapted to conditions of high soil fertility and in tests produced substantially higher yields than Prior. These features together with improved malting quality represent considerable advantages for the grower and the industry as a whole. In 1976-77 Clipper was the most widely grown variety, accounting for 70 per cent of total area sown to barley. The percentage sown to Prior and Noyep was 5 and 1 per cent respectively. Another variety, Ketch, was released in 1970. The proportion sown to Ketch in 1976-77 was approximately 6 per cent.

### Research

Because of the inherent similarities, the barley industry has in many instances benefited from the technological advances achieved by the wheat industry, namely the use of superphosphate and the inclusion of pastures in rotation, but certain problems peculiar to barley have necessitated the undertaking of extensive research. The barley research program is conducted by the Department of Agriculture and Fisheries and the Waite Agricultural Research Institute for which the Australian Barley Board provides financial support.

### Marketing

The marketing of barley is under the control of the Australian Barley Board which operates in South Australia and Victoria and provides an orderly marketing system for barley grown in these States. In the 1976-77 season the Board received a total of 1 171 000 tonnes, the record being 1 420 000 tonnes in 1975-76. Since 1966-67 receivals of bulk barley have been greater than receivals of bagged barley.

For marketing purposes all barley is classified on sample before delivery. Classification is firstly by row variety and secondly by quality. With the wide acceptance of Clipper barley as the prime malting variety, the Board has renumbered its barley standards for South Australia for season 1975-76 and subsequent seasons to South Australian Clipper Barley No. 1 and No. 2 Grade, South Australian Two Row Barley No. 3 and 4 Grade, and South Australian Six Row Barley Feed Grade.

**Australian Barley Board Receivals, South Australia**

Season	2-Row		6-Row		Total	
	Malting	Milling	Feed	Malting		Feed
	'000 tonnes					
1972-73 .....	5	29	315	—	1	350
1973-74 .....	117	209	346	—	3	676
1974-75 .....	139	435	485	—	13	1 072
1975-76 .....	116	270	609	—	10	1 006
1976-77 .....	82	213	511	—	5	811

The price of malting barley is determined on the basis of an agreed formula and subsequently the prices of barley for distilling and pearling are calculated—the prices for feed purposes are determined monthly. The home consumption prices determined by the Board for barley for the seasons 1975-76 and 1976-77 are shown below.

**Price per Tonne of Barley for Home Consumption**

Season	No. 1 Grade	No. 2 Grade	No. 3 Grade	No. 4 Grade
Bagged Barley		Dollars		
1975-76:				
3 year Contract .....	—	—	95.95	94.05
Other .....	106.70	103.70	101.00	99.00
Bulk Barley				
1975-76:				
3 year Contract .....	—	—	91.20	89.30
Other .....	101.70	98.70	96.00	94.00
1976-77:				
3 year Contract .....	—	—	95.00	96.90
Other .....	108.40	105.40	100.00	102.00

**OATS**

The following table shows the area of oats sown for grain, for hay and for forage and the production of grain and hay in recent years.

**Oats, South Australia**

Season	Area Sown for			Total Area	Production		
	Grain	Hay	Forage		Grain	Hay	
		'000 hectares				'000 tonnes	
1972-73 .....	142	53	60	254	74	120	
1973-74 .....	152	56	44	252	142	192	
1974-75 .....	135	35	45	215	112	117	
1975-76 .....	119	34	41	195	107	99	
1976-77 .....	117	41	40	198	90	114	

The milling qualities of most oats grown in South Australia do not meet the requirements of overseas markets and only a small proportion of the harvest is exported; most of the crop is used as animal fodder. As is the case with barley, some of the area sown for grain and hay is grazed until June or July then closed to sheep to allow re-growth to a crop. Part of the area sown for forage is left to stand until it is used as dry grazing in autumn, when other fodder is not plentiful.

In 1976-77, 80 per cent of the total area of oats was sown in four varieties—Swan, 99 000 hectares; Avon, 31 000 hectares; Irwin, 13 000 hectares; and Kherson, 13 000 hectares.

## RYE

Rye is a minor crop, but it has been used to control sand drift and particularly to stabilise the light soils of the Murray Mallee. Because the sands are deficient in two main nutrients (nitrogen and phosphorus), a mixed superphosphate-ammonia fertiliser is sown with the rye seed early in the season. The rapid early growth of the rye while the ground is still warm and before the strong winds of winter cause sandblast is at present the most effective form of controlling drifting sand. Rye provides early greenfeed while some grain is produced on a number of farms. Although most grain is used for stock feed, varying quantities are exported in different years for milling. Rye hay is of poor nutritional quality and only a few hundred tonnes are produced each year.

In 1976-77, 12 700 hectares of rye for grain yielded 4 650 tonnes. Record production was 12 000 tonnes from 23 000 hectares in 1958-59.

## HAY

The quantity of hay produced varies considerably from year to year according to seasonal conditions and the need to replace stocks used during the previous season. The main crops cut for hay in recent years have been oats, lucerne, and clover and grass hay which together account for more than half of all hay produced.

## Hay: Area and Production, South Australia

Season	Oaten	Wheaten	Lucerne	Barley and Rye	Clover and Grass	Total
AREA ('000 hectares)						
1972-73 .....	53	20	37	16	84	210
1973-74 .....	56	14	45	10	143	268
1974-75 .....	35	10	28	6	111	190
1975-76 .....	34	10	25	7	83	159
1976-77 .....	41	11	25	9	79	164
PRODUCTION ('000 tonnes)						
1972-73 .....	120	53	154	30	265	623
1973-74 .....	192	46	167	25	449	879
1974-75 .....	117	34	119	17	375	662
1975-76 .....	99	30	101	16	260	506
1976-77 .....	114	27	99	20	252	512

Between 20 000 and 50 000 tonnes of silage are produced in most years and in certain areas this is an important supplementary stock food; in 1976-77 production was 15 000 tonnes.

## VEGETABLES

The market garden industry in South Australia is characterised by a large number of growers, most of whom cultivate only a few hectares. Many of the gardens form part of a larger holding. Much of the production of the industry comes from properties with easy access to the Adelaide market.

Of the total area of approximately 10 000 hectares devoted to market gardens, districts adjacent to Adelaide account for 4 000 hectares producing all types of vegetables, including large quantities of celery and early tomatoes for export. Over 4 000 hectares are cultivated in the South East Division, mainly peas, sweet corn and potatoes. An area of some 150 hectares in Northern Division (mainly on the coastal plains near Port Pirie) is used for the production of peas and early tomatoes for Adelaide and for export to the

Melbourne market. Nearly 1 500 hectares along the River Murray are devoted to production of peas, pumpkins and melons for the Adelaide market, tomatoes for local markets and small areas of most other vegetables.

The bulk of the potato production comes from the central and southern Adelaide hills and from the Mount Gambier area. The average yield has risen progressively to a record of 26 tonnes per hectare in 1972-73 and again reached this level in 1976-77. This improvement is largely because of better quality seed, improved fertilisers and advances in pest and disease control.

The South Australian Potato Board is constituted under authority of the Potato Marketing Act, 1948-1974 to control the sale and delivery of potatoes by growers. It fixes the maximum and minimum prices and the conditions under which potatoes may be sold. Members of the Board are representatives of retail sellers, merchants and growers of potatoes.

In 1976-77, 2 835 hectares were sown to green peas in the South East Division for factory processing. Production of green peas from this area accounted for about 94 per cent of the total crop. The Port Pirie-Mambray Creek area, the hills to the south of Adelaide and Upper Murray irrigation areas are other important areas for pea production.

The Adelaide plains produce most of the South Australian tomatoes which are grown in glasshouses. Significant quantities, mostly for canning and juice production in local factories, are now grown in the Upper Murray irrigation areas. In recent years, high yields have resulted from the introduction of new varieties.

#### Vegetables for Human Consumption, South Australia

Vegetable	Area		Production	
	1975-76	1976-77	1975-76	1976-77
	Hectares		Tonnes	
Beans .....	47	42	259	198
Cabbages .....	201	206	8 837	8 713
Carrots .....	292	290	6 756	6 399
Cauliflowers .....	218	248	11 539	11 676
Celery .....	77	63	4 533	3 905
Lettuce .....	201	197	4 258	3 676
Melons .....	111	132	1 402	1 770
Onions .....	791	776	21 399	22 389
Peas .....	3 192	3 192	14 088	18 906
Potatoes .....	2 842	3 202	70 727	83 441
Pumpkins .....	392	377	5 797	6 136
Sweet corn .....	368	304	3 955	2 848
Tomatoes .....	426	391	17 069	16 006
Turnips .....	99	86	874	698
Other .....	240	273	..	..
<b>Total .....</b>	<b>9 497</b>	<b>9 779</b>	<b>..</b>	<b>..</b>

#### GRAPES

Approximately 44 per cent of Australia's vineyard area is located in South Australia where the bulk of the grapes grown are used for winemaking. In 1976-77 South Australia produced 230 million litres of wine and 3 488 tonnes of dried vine fruit representing 62 per cent and 6 per cent respectively of total Australian production. The following table shows the area of vineyards in South Australia for the seasons 1972-73 to 1976-77.

## Area of Vineyards, South Australia

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
	Hectares				
Vines:					
Bearing age . . . . .	25 200	26 178	26 833	27 278	27 857
Not yet bearing . . . . .	4 328	3 424	3 533	3 883	3 387

The area planted to vines at 31 March 1977 was a record 31 244 hectares exceeding the previous record at March 1976 by 83 hectares. Total production in 1976-77 was a record 293 489 tonnes. The previous record harvest of 290 561 tonnes was achieved in 1974-75.

Production of Grapes, South Australia<sup>(a)</sup>

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
	Tonnes				
Grapes:					
For wine . . . . .	220 576	206 022	272 007	256 583	280 099
For table . . . . .	1 213	900	1 388	962	1 440
For drying . . . . .	22 106	12 230	17 166	12 183	11 950

(a) Classified according to purpose for which grapes are used.

About one-third of the State's wine-grape crop is received by the co-operative wineries. Nearly all of this is grown by members who receive a down payment on each tonne, followed by further payments over a period of up to five years according to realisation made on the product. The balance of the crop is processed by proprietary wineries which purchase grapes from the growers. Minimum prices, according to variety, are determined by the South Australian Commissioner for Consumer Affairs. The proprietary wineries also purchase a large proportion of the wine, brandy and spirits made by co-operatives.

The following table shows the area, production and utilisation of grapes for the seasons 1972-73 to 1976-77.

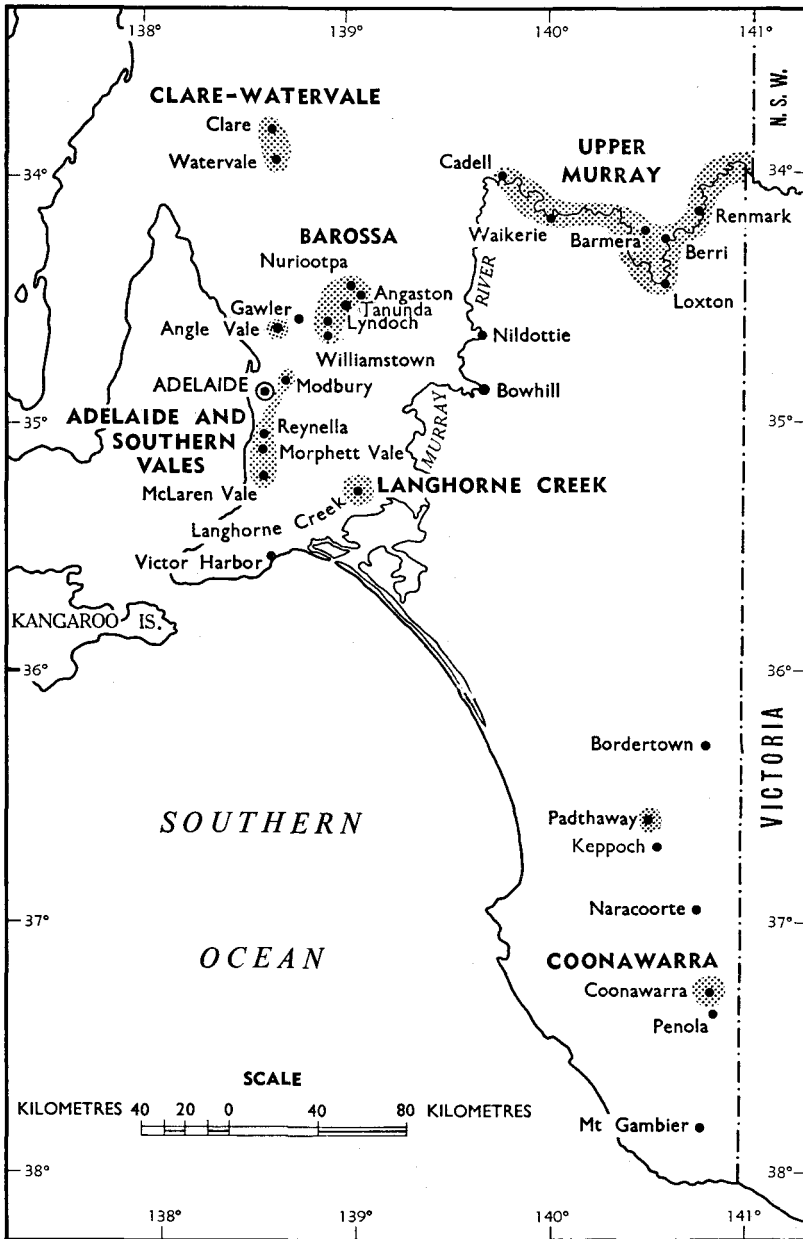
## Area, Production and Utilisation of Grapes, South Australia

Season	Area of Vines	Total Grape Production (Fresh)	Wine Production (a)	Dried Fruit Production		
				Currants	Sultanas	Raisins
	Hectares	Tonnes	'000 litres		Tonnes	
1972-73 . . .	29 528	243 895	183 502	2 026	3 244	468
1973-74 . . .	29 602	219 152	169 991	1 053	1 819	324
1974-75 . . .	30 366	290 561	221 977	2 333	2 054	322
1975-76 . . .	31 161	269 728	213 863	1 357	1 639	280
1976-77 . . .	31 244	293 489	229 973	2 217	1 011	260

(a) Excludes grape spirit added.



# PORTION OF SOUTH AUSTRALIA GRAPE GROWING DISTRICTS



### Grape Growing Districts

The grape growing districts of South Australia are subject to substantial variety in geographical location, climatic variations and soil conditions and can be divided into six easily recognisable regions (see map on page 395) ranging from the Clare-Watervale district in the north to the southern limit of the grape growing area at Coonawarra in the south-east of the State and bounded by the warm irrigated areas of the River Murray to the east.

Supplementary irrigation is carried out in some grape growing districts which have not been officially designated as irrigation areas, especially Langhorne Creek and Coonawarra where approximately 50 to 60 per cent of all grapes are under irrigation. The other areas are mainly dependent on winter rainfall stored in the sub-soil by careful dry-farming methods to be used during the summer growing season of the vine—the yields in the non-irrigated districts are more variable than the Upper Murray irrigation areas.

District average yields in the irrigated areas are 18 to 20 tonnes per hectare although individual vineyard yields of 40 to 50 tonnes per hectare are not uncommon. In the non-irrigated districts the average is 4 to 8 tonnes per hectare with individual vineyards producing 20 to 25 tonnes per hectare in favourable years.

### Grape Varieties

The following table shows the area planted to the principal grape varieties in South Australia. The most common varieties include sultana and currant which can be used for dried fruit as well as wine or spirit production. The grape variety names used are those recommended for publication throughout Australia by the Grape Industry Advisory Committee.

Principal Varieties of Vines, South Australia

Variety	March 1974	March 1975	March 1976	March 1977
	Hectares			
Sultana .....	2 871	2 815	2 747	2 643
Muscat Gordo Blanco .....	1 903	1 900	1 897	2 032
Currant .....	1 028	943	864	750
Grenache (a) .....	5 321	5 364	5 308	5 151
Shiraz .....	4 937	5 297	5 576	5 546
Doradillo .....	1 822	1 787	1 750	1 751
Palomino (Paulo, Listan) .....	2 525	2 514	2 486	2 410
Common Palomino (b) .....				
Pedro Ximinez .....				
Semillon (c) .....	3 298	3 511	3 877	630 2 564 966
Rhine Riesling .....				
Clare Riesling .....				
Mataro .....	1 571	1 628	1 635	1 597
Cabernet Sauvignon .....	1 908	2 153	2 413	2 441
Other .....	2 418	2 454	2 608	2 762
<b>Total .....</b>	<b>29 602</b>	<b>30 366</b>	<b>31 161</b>	<b>31 244</b>

(a) Includes White Grenache. (b) Includes Faise Pedro. (c) Includes Madeira.

A special article on the wine industry in South Australia was included on pages 376-95 of the *South Australian Year Book* 1968.

## ORCHARD FRUIT

A large variety of fruit crops is grown in South Australia. The main types are oranges, peaches and apricots (predominantly grown in the irrigation settlements of the Upper Murray) and apples (nearly all grown in the Adelaide Hills).

The following table of citrus trees of bearing age and production during the past five seasons shows the predominance of navel and valencia oranges. Other types of oranges, lemons and limes, mandarins, grapefruit, etc., together represent only 15 per cent of total citrus production.

Citrus Fruit: Trees and Production, South Australia

Season	Oranges			Lemons and Limes	Mandarins	Grape- fruit	Total Citrus
	Navel	Valencia	Other				
TREES OF BEARING AGE ('000)							
1972-73 ...	544	797	7	70	67	43	1528
1973-74 ...	540	802	8	72	66	45	1533
1974-75 ...	530	795	11	78	67	48	1527
1975-76 ...	520	797	10	87	68	52	1534
1976-77 ...	499	781	10	92	63	55	1500
PRODUCTION (Tonnes)							
1972-73 ...	47 396	77 717	591	4 603	2 755	5 657	138 719
1973-74 ...	45 750	66 985	631	6 108	3 847	6 017	129 338
1974-75 ...	50 307	75 325	821	7 360	3 371	5 692	142 876
1975-76 ...	54 812	87 778	1 019	7 151	3 619	7 066	161 445
1976-77 ...	49 737	73 872	606	8 100	4 251	8 118	144 684

Citrus growing is concentrated in the irrigation settlements of the Upper Murray where approximately 80 per cent of the total crop is produced. The industry has shown great expansion in the last decade; in 1975-76 a record production of 161 445 tonnes was achieved. Production for 1976-77 was 144 684 tonnes.

The Citrus Industry Organization Committee of South Australia, constituted under the Citrus Industry Organization Act, 1965-1972, regulates and controls the marketing of citrus fruit in South Australia and undertakes or arranges for research into the citrus industry.

Apple growing is the principal non-citrus fruit industry and is concentrated in the Adelaide Hills. The yield per bearing hectare which averaged 9 tonnes for the ten seasons ended 1961-62, rose to a record 16 tonnes per bearing hectare in 1968-69. A record production of 33 000 tonnes was achieved in 1940-41, while production in 1976-77 was 18 315 tonnes.

Pears are grown in the Adelaide Hills, in the Barossa Valley and on the Murray irrigation settlements. The yield from the 1970-71 harvest was a record 13 000 tonnes from 636 hectares. Production in 1976-77 was 6 812 tonnes.

The stone fruits industry became important following development of the irrigation schemes. Production of peaches has shown the greatest increase: the 1951-52 yield of 3 000 tonnes from 835 hectares was typical for the crop until that time, but by 1966-67 the yield was a record 29 000 tonnes from 1 924 hectares. In the same period production of apricots rose from 11 000 to 28 000 tonnes. South Australia is the major apricot-producing State, with the greater part of the crop being dried and much of the remainder being canned.

Cherries, plums and prunes, and almonds are the most important of the remaining crops.

#### Non-citrus Orchard Fruit: Trees and Production, South Australia

Season	Apples	Apricots	Cherries	Peaches	Pears	Plums and Prunes
TREES OF BEARING AGE ('000)						
1972-73 .....	523	376	45	359	163	62
1973-74 .....	509	369	45	334	157	57
1974-75 .....	485	346	45	317	150	60
1975-76 .....	473	332	42	300	145	58
1976-77 .....	453	323	39	274	130	54
PRODUCTION (Tonnes)						
1972-73 .....	27 940	22 928	1 059	25 457	13 076	2 057
1973-74 .....	18 551	21 046	814	19 442	10 091	1 678
1974-75 .....	23 181	12 535	779	22 671	11 380	1 392
1975-76 .....	19 302	12 184	741	20 108	9 235	1 879
1976-77 .....	18 315	14 209	693	16 284	6 812	1 485

The Upper Murray irrigation areas and the Barossa Valley of South Australia account for almost the entire Australian production of dried apricots, peaches, pears and nectarines. A small proportion of the Australian production of dried prunes is produced in the Barossa Valley and in the Noarlunga district.

The Dried Fruits Board, constituted under the Dried Fruits Act, 1934-1972, regulates marketing in South Australia by determining a quota for home sale of dried fruits in each year and encourages the consumption of dried fruits by advertising.

#### OTHER CROPS

Other crops cultivated in South Australia include field peas, nursery products, cut flowers, pasture seeds, vegetable seeds, chicory and linseed.

In 1976-77, 10 535 hectares of field peas were grown for grain yielding 8 247 tonnes; virtually all of this area is located in the cereal growing districts north of Adelaide. Field peas are grown mainly as a livestock fodder or for processing into split peas.

Most of the lucerne and other pasture seeds are grown in the cooler, moist regions, particularly in the south-east of the State. During the 1976-77 season approximately 50 per cent of the 1 436 000 kg of lucerne seed produced in the State was grown in the South East Division.

A considerable portion of the area devoted to nurseries is found in the vicinity of Adelaide. In addition there are several fruit tree nurseries in the horticultural districts of the River Murray.

#### PLANTING AND HARVESTING OF CROPS

The main crops of South Australia are normally planted and harvested during the periods listed in the following table.



## Gross Value of Principal Crops, South Australia (continued)

Commodity	1972-73	1973-74	1974-75	1975-76	1976-77 <sup>p</sup>
	\$'000				
<b>Vegetables:</b>					
Potatoes .....	5 796	11 172	9 285	9 966	10 997
Green peas .....	1 643	1 698	2 513	1 417	1 911
Other .....	17 903	23 479	24 779	29 505	29 265
<b>Other crops</b> .....	2 911	3 414	7 274	8 056	9 580
<b>Total crops (excluding pastures)</b> ..	167 623	377 384	420 601	364 094	328 121
<b>Pastures:</b>					
Pasture seed .....	3 023	4 929	5 092	4 066	3 328
Pastures cut for hay .....	7 122	11 242	9 014	6 590	6 657
Pastures cut for green feed or silage	n.a.	63	n.a.	n.a.	n.a.
<b>Total pastures</b> .....	10 145	16 234	14 106	10 657	9 985
<b>Gross value of crops</b> .....	177 768	393 618	434 707	374 750	338 106

Market prices of principal crops grown in South Australia for the years 1972-73 to 1976-77 are set out in the following table.

## Prices of Principal Crops, South Australia

Commodity	1972-73	1973-74	1974-75	1975-76	1976-77 <sup>p</sup>
<b>Cereals:</b>	Dollars per tonne				
Wheat (a) .....	56.09	110.33	111.21	104.46	90.76
Barley (a) .....	59.30	88.29	106.11	98.14	106.52
Oats .....	62.70	63.49	74.10	65.20	71.90
Rye .....	94.35	61.92	75.41	100.00	123.17
<b>Fruit:</b>					
Apples .....	246.18	256.29	386.00	310.00	540.00
Apricots .....	331.71	271.45	541.00	411.00	443.87
Peaches .....	393.10	438.00	672.00	637.00	681.00
Pears .....	232.31	243.11	320.00	407.00	460.00
Oranges;					
Navel (a) .....	78.08	78.08	96.91	97.00	146.12
Other (a) .....	92.32	92.31	105.14	105.00	139.16
Grapes;					
Table .....	311.89	377.88	471.00	461.00	513.00
Wine (b) .....	82.36	92.80	124.27	140.26	152.81
<b>Vegetables:</b>					
Potatoes (a) .....	85.05	185.10	131.40	138.95	127.40
Onions .....	105.21	265.00	201.00	253.00	226.00
Tomatoes;					
Glasshouse .....	296.66	435.00	563.00	709.00	615.00
Other .....	335.57	352.00	289.00	569.00	481.00

(a) Average price realised.

(b) Weighted average price at winery.

The average price of wheat in the 1976-77 season was \$90.76 per tonne, compared with the record \$111.21 per tonne in 1974-75. The price of wheat rose from \$56.09 per tonne in 1972-73 to \$110.33 per tonne in 1973-74.

A new record average price for barley of \$106.52 per tonne in the 1976-77 season was marginally above the previous record price of \$106.11 per tonne in the 1974-75 season.

### PASTORAL AND DAIRYING

Pastoral activities, with sheep grazing predominant, are widespread in South Australia under widely varying climatic conditions from the arid saltbush plains in the Far North through to the lush, well-watered pastures of the South East.

Livestock numbers have increased markedly since 1960 (although sheep numbers have stabilised since 1966-67, except for 1972-73 and 1976-77 when numbers fell noticeably). The bulk of the expansion of the industry has been confined to the heavier rainfall districts.

#### The Dog Fence

This fence is an unbroken barrier of wire netting about 2 metres high extending for more than 8 000 kilometres through South Australia, along the South Australia-New South Wales and the New South Wales-Queensland borders and through part of Queensland. It has been erected to protect the sheep lands of these States from the ravages of dingoes (native dogs). The part of the fence within South Australia extends in a tortuous line from the head of the Great Australian Bight to the New South Wales border for a distance of nearly 2 400 kilometres. The whole of the sheep population of South Australia is now confined within the area enclosed by the dog fence which effectively excludes the dingoes.

### PASTURES

There has been a significant increase in the area of sown pastures over the past twenty years. Area under pasture for the years 1972-73 to 1976-77 is shown for statistical divisions in the following table.

Area Under Pasture: Statistical Divisions, South Australia<sup>(a)</sup>

Statistical Division	1972-73	1973-74	1974-75	1975-76	1976-77
	'000 hectares				
Adelaide .....	26	26	24	22	19
Outer Adelaide .....	395	419	406	403	376
Yorke and Lower North .....	259	297	299	275	279
Murray Lands .....	695	744	819	827	813
South East .....	1 251	1 287	1 307	1 289	1 263
Eyre .....	516	631	675	671	638
Northern .....	87	95	111	102	97
<b>Total .....</b>	<b>3 230</b>	<b>3 500</b>	<b>3 641</b>	<b>3 589</b>	<b>3 484</b>

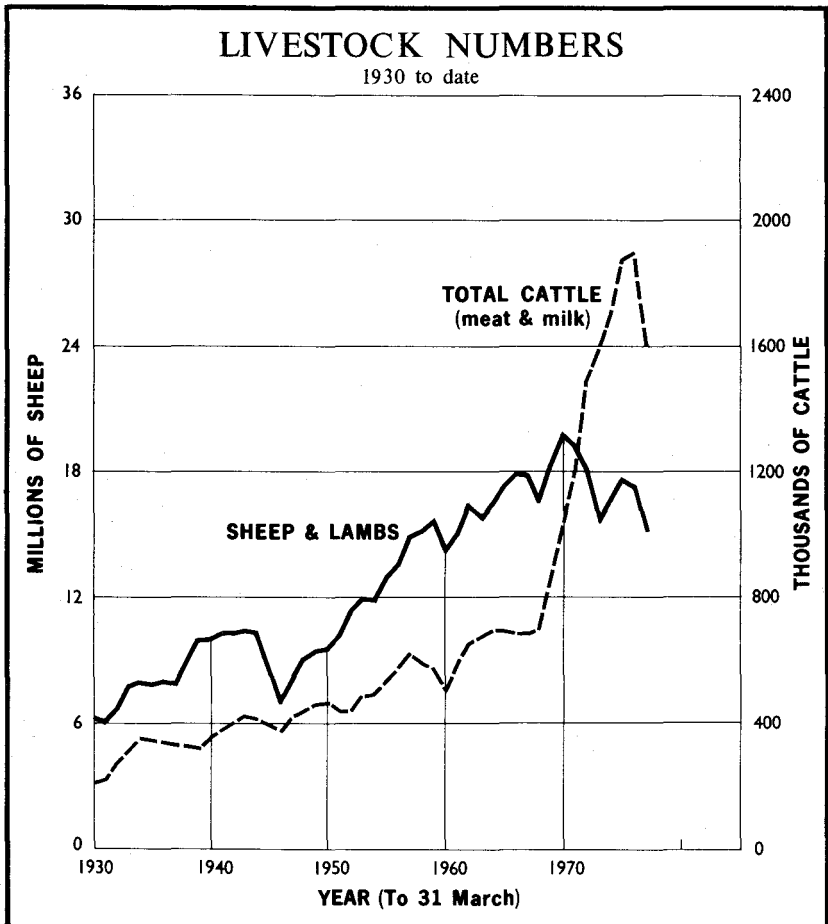
(a) Lucerne, clovers (all kinds), rye grasses (all kinds), cocksfoot, paspalum, phalaris, primrose, sudan and veldt.

The Murray Mallee and Eyre Peninsula have been transformed from unstable farming districts to highly productive areas through the sowing of more and improved pastures. In earlier years most pasture plants available flourished only in the higher rainfall zones of the State. At that time Mount Barker subterranean clover was the predominant pasture. New varieties have been introduced, including Clare, Geraldton, Dwalganup and Yarloop

subterranean clovers. These are suited to the hard setting soils of the important wheatgrowing area extending northward from Adelaide to Jamestown.

Another type of legume, known as medics, has been found to be suitable for the drier cereal country, especially the mallee soils. Five medics are grown: Hannaford, Jemalong Barrel, Harbinger Strand, Gama Paragosa and Snail. Lucerne is also extensively grown; it thrives under irrigation yet still grows in areas with as little as 250 millimetres of rainfall a year—it is both salt-resistant and drought-resistant. Strawberry clover is the important legume on the black soils of the South East.

The most important perennial grasses in the better rainfall areas are phalaris tuberosa, perennial rye grass and cocksfoot while the annual, wimmera rye grass is most widely used in the medium to low rainfall areas. The naturalised annual grasses which occur over the whole of the State contribute substantially to total pasture production.





## SHEEP

## Numbers and Distribution

At 31 March 1970 a record number of 19 747 000 sheep were being maintained in South Australia but recent drought conditions reduced the number to 15 132 000 at 31 March 1977.

By far the greatest concentration of sheep is in the South East Division which carried 3·9 million sheep at 31 March 1977. The next largest concentration of sheep at 31 March 1977 was in the Northern Division, 3·1 million, and sheep numbers of over 2·0 million were reported both in Yorke and Lower North, and Eyre Divisions.

**Sheep Numbers: Statistical Divisions, South Australia  
At 31 March**

Statistical Division	1973	1974	1975	1976	1977
			'000		
Adelaide .....	103	112	96	108	76
Outer Adelaide .....	1 786	1 814	1 958	1 956	1 723
Yorke and Lower North .....	2 324	2 546	2 750	2 580	2 097
Murray Lands .....	2 064	2 274	2 499	2 363	1 994
South East .....	3 914	3 961	4 196	4 281	3 936
Eyre .....	2 384	2 512	2 699	2 606	2 199
Northern .....	3 076	3 211	3 422	3 384	3 108
<b>Total .....</b>	<b>15 651</b>	<b>16 431</b>	<b>17 621</b>	<b>17 279</b>	<b>15 132</b>

At 31 March 1977, 19 per cent of the total sheep population consisted of lambs and hoggets under one year. The proportion of lambs to sheep has remained fairly constant for a number of years although it is subject to some fluctuations.

**Age and Sex of Sheep, South Australia  
At 31 March**

Year	Rams	Breeding Ewes	Other Ewes	Wethers	Lambs and Hoggets (under one year)	Total Sheep
				'000		
1973 .....	212	8 004	641	3 187	3 607	15 651
1974 .....	215	8 417	536	3 430	3 832	16 431
1975 .....	227	8 648	707	3 820	4 217	17 621
1976 .....	227	8 338	824	3 899	3 991	17 279
1977 .....	214	7 819	648	3 535	2 916	15 132

## Lambing

In 1969 a record 8 598 000 ewes were mated and the number of lambs marked totalled 7 193 000. In 1976, 7 266 000 ewes were mated and the number of lambs marked was 4 955 000. Early reports from farmers indicated that they intended to mate 7·5 million ewes in 1977—approximately 5·0 million to Merino rams, 0·8 million to other longwool rams and 1·7 million to shortwool rams.

Details of lambs marked and the lambing percentage in each statistical division in 1975 and 1976 are given in the next table.

### Lambing: Statistical Divisions, South Australia

Statistical Division	Lambs Marked		Lambing Percentage (a)	
	1975	1976	1975	1976
	'000		Per cent	
Adelaide.....	39	28	86.95	76.81
Outer Adelaide .....	726	593	80.71	71.75
Yorke and Lower North.....	995	726	77.00	63.84
Murray Lands .....	962	718	77.85	63.81
South East .....	1 647	1 444	86.60	80.01
Eyre .....	759	599	71.58	63.75
Northern .....	1 036	847	71.55	60.34
<b>Total .....</b>	<b>6 164</b>	<b>4 955</b>	<b>78.20</b>	<b>68.18</b>

(a) Percentage of lambs marked to ewes mated.

### Breeds of Sheep

The predominant breed in South Australia is the Merino which accounts for more than 87 per cent of the total sheep numbers. The South Australian Merino, having a robust constitution and a capacity to travel long distances to water, has adapted well to the hot, dry conditions of the interior.

### Breeds of Sheep, South Australia At 31 March

Breed	1969	1970	1971	1974	1977
	'000				
Merino .....	15 275.1	16 749.3	16 304.1	14 212.0	13 174.3
Corriedale .....	1 085.3	973.1	940.6	646.2	557.1
Dorset Horn .....	} 62.0	67.4	77.9	} 46.5	45.6
Poll Dorset .....					
Border Leicester .....	32.3	29.6	27.7	25.8	108.8
Polwarth .....	114.1	139.6	147.6	137.3	120.0
Romney Marsh .....	26.6	21.1	17.6	11.4	18.4
Ryeland .....	7.1	6.7	5.7	4.0	6.2
Southdown .....	5.3	4.9	4.7	3.1	2.3
Suffolk .....	16.9	14.9	18.4	19.0	23.9
Other .....	4.3	3.8	4.3	7.7	9.6
Merino-Comeback .....	198.8	168.4	214.7	133.6	73.5
Crossbred .....	1 564.3	1 568.3	1 402.6	1 149.3	934.2
<b>Total .....</b>	<b>18 392.1</b>	<b>19 747.1</b>	<b>19 165.8</b>	<b>16 430.9</b>	<b>15 132.3</b>

Of the remaining recognised breeds, the Australasian breeds, Corriedale and Polwarth, are most important. These are dual purpose sheep, used for mutton and at the same time producing wool of good quality. The Corriedale is a fixed cross between Lincoln rams and Merino ewes while the Polwarth is a fixed comeback breed from the mating of Merino rams with Lincoln-Merino ewes.

British longwools (Border Leicester, Cheviot and Romney Marsh) are used for mating with the Merino or crossbred ewes mainly to produce fat lambs but useful types of comeback and crossbred wools, are also yielded. British shortwools (Dorset Horn, Ryeland, Suffolk, Southdown and Shropshire) are used principally for production of export lambs.

### Sheep Shearing and Wool-clip

In the agricultural areas of the State there is a predominance of shearing during the late winter and spring months, August to November. Shearing in the South East Division occurs somewhat later, with 50 per cent of the wool-clip being obtained in the period October to November. In the northern pastoral areas (Northern Division) there are two main seasons, March-April and July-August. The next table gives details of sheep and lambs shorn, wool-clip and average fleeceweight in South Australia for the years 1972-73 to 1976-77.

#### Sheep and Lambs Shorn: Wool-clip and Average Fleeceweight, South Australia

Classification	1972-73	1973-74	1974-75	1975-76	1976-77
	NUMBER SHORN ('000)				
Sheep .....	15 009	13 965	14 651	15 355	14 645
Lambs .....	3 973	3 919	4 416	4 394	3 275
<b>Total .....</b>	<b>18 982</b>	<b>17 885</b>	<b>19 067</b>	<b>19 748</b>	<b>17 920</b>
	WOOL-CLIP ('000 kg) (a)				
Sheep .....	85 353	82 314	88 965	84 148	82 181
Lambs .....	6 844	7 320	8 703	7 663	5 835
Crutchings .....	4 419	4 249	4 594	4 413	4 302
<b>Total .....</b>	<b>96 616</b>	<b>93 883</b>	<b>102 261</b>	<b>96 224</b>	<b>92 317</b>
	AVERAGE FLEECEWEIGHT (kg) (a)				
Sheep .....	5.98	6.20	6.39	5.77	5.91
Sheep and lambs .....	5.09	5.25	5.36	4.87	5.15

(a) Includes crutchings.

The total wool-clip, including crutchings, exceeded 100 million kg for the first time in 1966-67. More than 90 per cent of the total wool is obtained from adult sheep.

The average fleeceweight in South Australia is well over 5 kg a head for adult sheep, with a record 6.39 kg a head being achieved in 1974-75. This is significantly higher than the yield obtained in other States, and is primarily because of the larger size of the South Australian Merino, its broader wool quality and longer thicker-stapled fleece.

A breakdown of the State figures for 1976-77 by statistical divisions is given in the next table. This shows the high average fleeceweight obtained in the northern pastoral areas. The relatively light average fleece obtained in the South East Division is explained partly by the lower proportion of Merino sheep in the area (at 31 March 1977 only 72 per cent of total sheep in the South East Division were Merinos, compared with a total State figure of over 87 per cent), but more importantly by the lighter wool quality of the smaller framed sheep in this area.

**Sheep and Lambs Shorn, Wool-clip and Average Fleeceweight: Statistical Divisions  
South Australia, 1976-77**

Statistical Division	Number Shorn			Wool-clip			Average Fleeceweight (a)	
	Sheep	Lambs	Total	Sheep	Lambs	Total (a)	Sheep	Sheep and Lambs
		'000			'000 kg		kg	
Adelaide .....	147	11	158	570	18	606	4.01	3.85
Outer Adelaide .....	1 657	359	2 016	8 753	597	9 804	5.56	4.86
Yorke and Lower North .....	2 108	383	2 491	11 817	641	13 090	5.91	5.26
Murray Lands .....	1 953	437	2 390	11 431	763	12 809	6.17	5.36
South East .....	3 671	1 037	4 708	19 625	1 866	22 484	5.62	4.78
Eyre .....	2 259	415	2 674	12 765	619	14 059	5.95	5.26
Northern .....	2 850	634	3 484	17 220	1 330	19 464	6.36	5.59
Total .....	14 645	3 275	17 920	82 181	5 835	92 317	5.91	5.15

(a) Includes crutchings.

### WOOL INDUSTRY

#### Production of Wool

Total wool production consists of shorn wool (including crutchings) plus fellmongered wool, dead wool and wool exported on skins. Fellmongering is the process of removing wool from the pelt by bacterial action (sweating) or by treatment with chemicals. Dead wool is picked from the carcasses of dead sheep.

Since 1965-66 wool production has exceeded 100 million kg each year (except in 1976-77), however, wool prices have varied markedly resulting in the gross value of production being as low as \$65 million in 1970-71 and as high as \$183 million in 1973-74. Since 1973-74 the gross value of wool has fallen due mainly to lower prices.

#### Wool Production and Value, South Australia

Season	Production			Value of Wool Production
	Shorn Wool	Other (a)	Total	
		'000 kg		\$'000
1972-73 .....	96 616	9 391	106 006	141 713
1973-74 .....	93 883	6 272	100 155	183 227
1974-75 .....	102 261	5 191	107 452	125 044
1975-76 .....	96 224	5 688	101 912	119 179
1976-77 .....	92 317	6 125	98 442	155 293

(a) Includes fellmongered wool, dead wool and wool exported on skins.

#### Organisation of the Australian Wool Industry

The Australian Wool Commission, a statutory authority set up by the Commonwealth Government following proposals from the Australia Wool Industry Conference and the subsequent report of a special Advisory Committee of the Australian Wool Board, commenced operations in November 1970 and in that month began bidding and operating its flexible reserve price at wool auctions.

The *Wool Industry Act 1972* repealed the *Wool Industry Act 1962* and the *Australian Wool Commission Act 1970* and under this Act the Australian Wool Corporation commenced operations on 1 January 1973 with the combined functions of the Australian

Wool Commission and the Australian Wool Board. The Wool Corporation has continued to operate the Flexible Reserve Price Scheme at auctions and to implement the policies established by the Australian Wool Commission.

### Wool Quality and Marketing

For many years approximately 9 per cent of the wool grown in South Australia was sold outside the auction system. This percentage has increased since the 1970-71 season reaching 19 per cent in 1972-73, falling to 14 per cent in 1973-74 and again rising to 22 per cent in 1976-77. Of the South Australian wool passing through the auction system approximately 85 per cent is received by the Adelaide selling centre with the remainder, predominantly of South Eastern origin, going to Victorian selling centres. A similar inflow of wool occurs from western New South Wales, and to a lesser extent from western Victoria.

Because of the development of a system of Objective Measurement for wool the traditional method of displaying wool for sale, whereby sample bales are opened for inspection by buyers, is declining in importance and much wool is now sold by sample. A high standard of clip preparation is required for sale by sample as there must be very little variation between the bales of wool of each grade.

When a suitable lot is received into store a core sample is taken and this is then tested to give measures of average fibre diameter (mean micron), degree of vegetable fault, and yield of wool (by three methods) and this information is entered on a certificate. As various other factors (*e.g.* length of wool, type of vegetable fault) must be assessed, a grab sample of 8 kg is taken from each lot and this is displayed on a show floor, together with the Objective Measurement certificate, for examination by buyers.

An advantage of the Objective Measurement system of clip preparation is that the sample may be inspected at a site remote from the location of the bulk of the clip. This has enabled wool held in Adelaide stores to be inspected, and sold, in Melbourne sales, which is of particular value to growers who deliver wool in late autumn and winter when there may be six to eight weeks between sales in Adelaide.

The incidence of vegetable matter reduces the yield of all wool types. If the extent of vegetable fault is greater than 14 per cent of the wool's greasy weight the wool has to be treated by the carbonising process. In most seasons approximately 70 per cent of South Australian wool is free of, or contains only light burr and seed; almost 15 per cent contains medium or heavy burr and seed and some 13 per cent is carbonising wool.

### Quality Analysis of Greasy Wool Sold at Auction in South Australia

Mean Micron Classification	1973-74	1974-75	1975-76	1976-77
		Per cent		
20 and finer .....	0.7	0.8	3.7	4.1
21 .....	5.8	6.7	11.7	14.0
22 .....	10.2	9.2	19.3	21.7
23 .....	23.5	21.9	26.5	26.4
24 .....	20.8	20.8	16.4	14.4
25 .....	15.0	14.7	8.5	7.8
26 .....	9.7	11.4	5.4	4.4
27 to 38 .....	12.0	12.8	} 6.7	5.6
Coarser .....	—	—		
Oddments .....	2.3	1.7	1.8	1.6
Total .....	100.0	100.0	100.0	100.0

## Incidence of Vegetable Fault in Wool Sold at Auction in South Australia

Season	Free or Near Free	Light Burr and/or Seed	Medium Burr and/or Seed	Heavy Burr and/or Seed	Carbonising Wool	Combing Oddments	Total
Percentage of Total Number of Bales							
1972-73 .....	36.2	33.9	10.9	4.6	13.1	1.3	100.0
1973-74 .....	50.2	26.4	7.4	2.2	12.2	1.6	100.0
1974-75 .....	49.7	24.6	8.6	2.7	12.7	1.7	100.0
1975-76 .....	37.0	31.8	12.7	3.1	13.6	1.8	100.0
1976-77 .....	37.8	31.7	13.4	2.8	12.7	1.6	100.0

At the Wool Exchange, the sales are conducted with great rapidity taking on average for a normal market only eight seconds to dispose of an individual lot or line of wool. On completion of the sale the bales are returned to the stacks to await instructions from the buyers. When required for shipment the bales are usually dumped, *i.e.* pressed to less than half their original size and banded, to economise on shipping space.

Details relating to Adelaide wool sales during the past five seasons are shown in the following table.

## Adelaide Wool Sales

Season	Wool Sold (Scoured and Greasy)		Amount Realised	Average Price Per Kg (Greasy)	In Store at End of Season
	Bales	Weight			
	Number	'000 kg	\$'000	Cents	Bales
1972-73 ...	521 187	75 862	135 087	178.07	12 693
1973-74 ...	487 336	74 249	131 078	176.54	30 582
1974-75 ...	563 483	84 962	102 054	120.12	22 762
1975-76 ...	517 176	77 810	104 626	134.46	17 079
1976-77 ...	482 682	73 652	127 705	173.39	13 582

## Wool Prices

Prices paid for wool sold in South Australia tend to be on average less than prices realised in other States, this being partly attributable to the large proportion of medium to broad quality wools grown in South Australia and in western New South Wales. In 1976-77 the average price for wool sold at auctions in Australia was 182.73 cents per kg greasy, compared with 173.39 cents per kg in South Australia.

## CATTLE

In comparison with other States, cattle grazing is not a major industry in South Australia. Of the cattle in Australia at 31 March 1977 just over 5 per cent of those used mainly for meat production and about the same percentage of those for milk production were in South Australia. At 31 March 1977 the total number of cattle in South Australia was 1 608 000.

**Cattle Numbers: Statistical Divisions, South Australia  
At 31 March 1977**

Classification	Statistical Division							Total
	Adelaide	Outer Adelaide	Yorke and Lower North	Murray Lands	South East	Eyre	Northern	
Associated with milk production:	'000							
Bulls (a) .....	0.1	1.3	0.3	0.4	1.0	—	0.1	3.2
Cows .....	4.9	56.0	5.5	22.6	28.6	0.7	1.6	120.1
Heifers .....	1.2	14.9	1.6	5.8	7.5	0.2	0.5	31.7
Calves under one year .....	0.9	10.4	1.5	4.5	5.9	0.2	0.4	23.8
House cows .....	0.1	0.9	1.0	0.8	1.1	1.2	0.6	5.7
<b>Total .....</b>	<b>7.3</b>	<b>83.5</b>	<b>9.8</b>	<b>34.2</b>	<b>44.2</b>	<b>2.3</b>	<b>3.2</b>	<b>184.5</b>
Associated with meat production:								
Bulls (a) .....	0.3	3.6	1.8	2.8	14.3	1.6	5.2	29.6
Cows and heifers .....	7.1	85.8	38.5	79.9	326.1	43.8	156.1	737.2
Calves under one year .....	4.3	46.6	23.3	55.2	192.4	26.5	94.5	442.8
Other cattle .....	2.3	19.2	6.4	15.1	115.1	5.6	50.0	213.7
<b>Total .....</b>	<b>14.1</b>	<b>155.1</b>	<b>70.0</b>	<b>153.1</b>	<b>647.8</b>	<b>77.5</b>	<b>305.7</b>	<b>1 423.3</b>
<b>Total cattle .....</b>	<b>21.3</b>	<b>238.6</b>	<b>79.8</b>	<b>187.3</b>	<b>692.0</b>	<b>79.8</b>	<b>309.0</b>	<b>1 607.8</b>

(a) Used or intended for service.

### Cattle for Meat Production

Numbers of cattle associated with meat production have increased in South Australia. At 31 March 1964, 424 000 cattle associated with meat production were recorded (this figure is not strictly comparable with earlier figures because of a change of classification adopted in 1964); by 31 March 1969, 631 000 cattle were reported for meat production on 8 706 holdings. The number at 31 March 1977 had risen to 1 423 000 cattle on 10 100 holdings indicating an overall increase in the herd size of meat cattle.

In 1977 about 46 per cent of these cattle were in South East Division, 21 per cent in Northern Division, and smaller numbers in other parts of the State. In the northern pastoral areas, Shorthorns are the predominant breed and there are lesser numbers of Herefords; in the South East, Herefords and Shorthorns are the main breeds and there are substantial numbers of Aberdeen Angus while near Adelaide, where a number of studs are located, several breeds are well represented. In recent years several European breeds have been introduced, most notably the Charolais.

The northern pastoral region is traditionally the breeding area for cattle for meat production (carrying 50 per cent or more of these cattle before 1957) but there has been a trend towards moving cattle which were bred in this drier country to the better rainfall areas for fattening. The continued increase in the area of sown pastures has contributed to the increase of cattle in southern parts of the State.

### Cattle for Milk Production

From March 1964 to March 1968 the total number of cattle associated with milk production declined by 39 000 to 231 000. A further decline in total numbers began in 1973-74; the total number at March 1977 was 184 000. At March 1966 there were 10 046 holdings with cattle used or intended to be used for milk production but by March 1976 the number had fallen to 3 463. Distribution within the State is little changed although there has been some tendency for concentration in the principal dairying areas.

Properties in South Australia on which dairying is the main activity, are situated mainly in the areas where high rainfall or irrigation permits the growing of sown pastures, but many of the mixed farms in the better cereal growing areas carry herds used mainly for milk production. Dairy production on these farms is almost entirely in the form of cream for butter making, whereas the properties in the sown pasture areas mainly market whole milk, either for consumption in the Adelaide area or for cheese making.

Commercial dairying activities are located mainly within a 130 kilometre radius of Adelaide. Of greatest importance is the Adelaide Hills district, comprising the Mount Lofty Ranges and areas as far south as Cape Jervis and Encounter Bay. This district embraces some of the best dairy land in the State and includes most of the properties devoted specifically to dairy farming. Although some herds are grazed on natural pastures improved only by top dressing with superphosphate, the most common pasture consists of a sown combination of subterranean clover with perennial grasses such as perennial rye grass or phalaris.

Dairy production is mainly in the form of whole milk for consumption in Adelaide but the surplus from the flush period of the year is converted into cheese at factories situated at several centres throughout the Adelaide Hills.

Of the breeds used mainly for milk production, Friesians and Jerseys predominate, with Guernseys, Australian Illawarra Shorthorn, Ayrshires and their crosses in use to a lesser extent.

Other areas inside the 130 kilometre radius are the Lower Murray swamps and Lakes District. The Lower Murray swamps extending from Mannum to Wellington are reclaimed areas ideally suited to dairying pursuits, combining the attributes of suitable climate, good soil, and an abundant water supply. The farms are flood irrigated through sluice gates in the levees and distributing channels and surplus water is led into a drainage system and pumped back into the river. The area has a very high carrying capacity of predominantly Friesian cattle. A significant proportion of the produce is sold as whole milk in the Adelaide market while the remainder is used for cheese, butter and casein production.

The Lakes District owes much to the barrages across the mouth of the Murray which have helped to maintain the waters of Lake Alexandrina and Lake Albert in a reasonably fresh state. These have greatly contributed to the improvement of the productivity of this area and also have had the effect of maintaining a greater control over the level of the water in the river, thereby greatly facilitating irrigation of the reclaimed swamps upstream. The outlet for dairy products is generally towards the processing plants situated on the Murray. On the eastern side both cream and milk are produced while on the western side most of the produce is sold as whole milk. The cattle for milk production are principally Jersey breed.

Outside the 130 kilometre radius, the most important dairying area is the Lower South East, where the high rainfall and low evaporation rate combine to allow a fairly long growth period after the autumn and winter rains and spring flush of feed. The intensity of dairying varies with the different areas, being greatest on the richer peat and peat-type soils close to the coast and the rich volcanic soils around Mount Gambier. Most breeds are well represented in the district, the Jersey and Friesian being slightly more popular than other breeds.

## DAIRY PRODUCE

### Milk

Total milk production in any one year is not known precisely. However, as details are known of two major components of total milk utilisation in South Australia, namely the amount consumed by factories in the production of milk, cheese, butter and other milk



products and home consumption in the Metropolitan Milk Board area, a carefully considered estimate can be made.

The following table shows the estimated production of whole milk and the quantity of this milk used for various purposes in 1976-77 and earlier seasons.

### Production and Utilisation of Milk, South Australia

Year	Total Milk Produced	Butter(a)	Factory Cheese (b)	Milk Used for		
				Home Consumption		Other Purposes
				Milk Board Area	Outside Milk Board Area	
				'000 litres		
1972-73 .....	424 265	101 865	174 500	96 222	41 708	9 969
1973-74 .....	438 829	101 648	190 465	95 389	41 346	9 980
1974-75 .....	426 371	89 458	194 335	91 828	39 917	10 833
1975-76 .....	397 500	64 947	192 166	90 868	39 501	10 018
1976-77 .....	354 912	56 112	157 951	91 225	39 656	9 968

(a) Includes factory and farm production of butter.

(b) Factory production accounts for virtually all cheese produced.

#### Metropolitan Milk Board

Adelaide was the last of Australia's capital cities to establish a Milk Board or Dairy Authority. Attempts from 1936 onwards to introduce orderly marketing of liquid milk had, despite some quite long periods of successful operation, been frustrated by frequent breaches of the agreements entered into by milk treatment companies. Eventually, representations by producers through their organisation, the South Australian Dairymen's Association, resulted in legislation in 1946 to establish the Metropolitan Milk Board.

The Board which was established in August 1947, is a statutory body responsible to the Minister of Agriculture. The Board derives its revenue from licences to producers, vendors and milk treatment plants, and from levies on whole milk and cream sold for human consumption.

The functions of the Board are to:

- (1) regulate the conditions of production, treatment and storage of milk and table cream;
- (2) regulate the supply and distribution of milk and table cream to retail vendors and consumers;
- (3) control the activities of retail vendors and to delineate the areas in which they may operate;
- (4) fix the prices for milk and table cream which must be paid to producers, milk treatment plants, retail vendors and shops;
- (5) promote increased sale and consumption of milk and table cream.

The Board consists of three members appointed by the Governor on the recommendation of the Minister of Agriculture. The Chairman is a full-time member, and

the two other members serve on a part-time basis. No member may have any interest direct or indirect in the dairy industry, nor may he represent any section of the industry in any way.

#### *Milk Prices Equalisation Scheme*

A special article on the operations of the Milk Prices Equalisation Scheme was included on pages 498-500 of the *South Australian Year Book 1977*.

#### **Butter and Cheese**

The quantities of butter and cheese produced during the last ten years are shown in the following table.

**Butter and Cheese Production, South Australia**

Year	Butter (a)	Cheese (b)	Year	Butter (a)	Cheese (b)
	'000 kg			'000 kg	
1967-68 .....	5 566	14 866	1972-73 .....	5 194	17 319
1968-69 .....	6 637	19 151	1973-74 .....	5 194	18 904
1969-70 .....	7 883	17 888	1974-75 .....	4 565	19 288
1970-71 .....	6 661	18 906	1975-76 .....	3 314	19 073
1971-72 .....	6 430	18 444	1976-77 .....	2 867	15 673

(a) Includes factory and farm production.

(b) Factory production only.

#### PIGS

In South Australia pigs were normally kept as a sideline on mixed farms or in conjunction with dairy cattle but the trend is towards holdings specialising in pigs.

There have been substantial fluctuations in the pig population from year to year induced by the exceptional variability of prices. In recent years the numbers have generally declined. The total number exceeded 200 000 for the first time in 1966 and has continued to exceed that number in subsequent years. Of the 317 000 pigs at 31 March 1977, approximately 56 per cent were in Outer Adelaide, and Yorke and Lower North Divisions. The principal breeds in South Australia are Large White, Berkshire, Landrace and Tamworth.

The following table shows the number of pigs on rural holdings at 31 March for the last five years.

**Pig Numbers, South Australia**

At 31 March	Boars	Breeding Sows	All Other	Total
1973 .....	6 113	57 711	435 637	499 461
1974 .....	4 996	46 000	334 162	385 158
1975 .....	4 664	44 318	299 973	348 955
1976 .....	4 533	42 259	279 132	325 924
1977 .....	4 376	41 431	270 700	316 507

In the following table, rural holdings with pigs at 31 March 1976 are classified according to the size of the pig herd and the number of breeding sows. Of the 25 143 holdings of all types 4 016 carried pigs.

**Rural Holdings Classified According to Number of Breeding Sows and Size of Pig Herd: South Australia, 1975-76<sup>(a)</sup>**

Number of Breeding Sows	Size of Pig Herd (Numbers)					Holdings with Breeding Sows
	1-9	10-19	20-49	50-99	100 and Over	
1-4 .....	287	309	370	33	6	1 005
5-9 .....	51	66	436	310	26	889
10-19 .....	—	20	94	343	223	680
20-49 .....	—	—	9	50	313	372
50-99 .....	—	—	—	3	90	93
100 and over .....	—	—	—	—	26	26
<b>Total .....</b>	<b>338</b>	<b>395</b>	<b>909</b>	<b>739</b>	<b>684</b>	<b>3 065</b>

(a) 951 holdings with pig herds carried no breeding sows.

#### MEAT PRODUCTION AND MARKETING

South Australia is a relatively small meat producer, providing only about 8 per cent of total Australian production. The South Australian Meat Corporation has the sole right within the Metropolitan Abattoirs area to slaughter stock for export as fresh meat in a frozen condition. It controls the handling and distribution of meat within this area and may fix the maximum number of stock sold in any one day in a Corporation controlled market.

The following table shows the number of livestock slaughtered for human consumption (including exports) and the production of meat during the last five years. Slaughtering and meat production on rural holdings are included in these figures.

**Livestock Slaughtered and Meat Produced, South Australia**

Season	Livestock Slaughtered for Human Consumption			Meat Production (Bone-in-Weight)			
	Cattle and Calves	Sheep and Lambs	Pigs	Beef and Veal	Mutton and Lamb	Pigmeat	Total
		'000			Tonnes		
1972-73 .....	392	4 538	527	64 254	76 262	27 483	167 999
1973-74 .....	359	2 595	448	63 211	50 116	24 195	137 522
1974-75 .....	465	2 984	344	84 649	54 818	18 699	158 166
1975-76 .....	549	3 561	342	92 012	62 971	19 264	174 247
1976-77 .....	656	3 426	344	110 058	60 472	19 455	189 985

Average market prices of some of the principal classes of livestock are set out in the next table. Generally prices fluctuate considerably from year to year but a comparison of prices for fat cattle and fat sheep for 1973 and 1975 shows a dramatic fall.

## Livestock, Average Prices at Adelaide Market

Class of Stock	1973	1974	1975	1976	1977
Fat cattle:					
			Dollars		
Bullocks and steers;					
Prime, medium .....	191.63	138.41	82.55	111.73	132.88
Good .....	161.89	116.77	68.79	n.a.	n.a.
Cows;					
Prime, medium .....	162.92	117.85	53.73	85.87	109.25
Good .....	140.11	101.28	34.93	43.97	61.31
Calves;					
Prime vealers .....	60.44	66.80	31.10	33.46	44.71
Good .....	48.51	51.85	23.91	23.08	30.08
Fat sheep:					
Merino wether;					
Prime .....	18.15	12.51	6.17	9.05	13.98
Medium .....	13.05	10.14	3.90	5.31	8.96
Lambs;					
Prime, medium .....	14.16	12.23	9.56	10.83	14.82
Good .....	11.85	9.93	6.00	6.21	9.98
Pigs:					
Choppers .....	72.10	118.67	125.87	123.69	111.39
Baconers .....	42.69	68.06	69.04	68.95	67.45
Porkers .....	25.45	37.79	40.56	42.12	40.83

Legislation setting up the Australian Meat and Livestock Corporation was enacted in 1977 and assented to in June of that year. The Act vested the Corporation with all the rights, property and other assets of its predecessor, the Australian Meat Board, which ceased to exist on commencement of the new legislation.

The main changes that distinguish the new Corporation from the old Australian Meat Board are in the composition of membership and the inclusion of livestock in the Corporation's role of promoting meat and controlling exports. Functions of the Corporation include improving the production of meat and livestock in Australia, promoting the consumption and sale of meat and livestock both in Australia and overseas, and by a system of licencing exporters, exercising effective control over the quantity and quality of meat and livestock exported.

The Corporation consists of nine members—the chairman, four members representing livestock producers, one representing meat exporters, one representing the Commonwealth, and two other members who hold special qualifications pertinent to the Corporation's activities: all members are appointed by the Minister.

Where a country imposes restrictions on the quantity of a grade or class of meat that it imports from Australia, the Corporation may operate a scheme to allocate export quotas among the licencees. The Corporation may also purchase and export meat or livestock in its own right providing that any such trade accords with general commercial practice.

Finance for the Corporation's operations is derived from levies imposed under the *Livestock Slaughter Levy Act 1964* and *Livestock Export Charge Act 1977*. The former imposes a levy on the slaughter of cattle (over 90 kg dressed weight), sheep, lambs, buffaloes and goats for human consumption, while the latter imposes a levy on the export of all cattle, sheep, lambs, buffaloes and goats with the exception that the Minister may declare a certain class of livestock to be exempt from the export levy.

The 1977 Act also established a number of consultative bodies whose functions are to disseminate information regarding policies and decisions of the Corporation and also to furnish advice to the Corporation on matters of importance which may affect various sections of the industry.

### OTHER RURAL INDUSTRIES

#### Poultry Farming

Poultry farming is a specialised and distinct industry and it is from the specialised hatcheries and chicken raising holdings that the bulk of commercial production is obtained. The industry can be divided into two categories; the production of eggs, and the raising of poultry for meat. Chickens, scientifically bred for rapid weight gain and known as 'broilers', account for over 90 per cent of total poultry slaughtered.

The main production centres for both categories of this industry are located within an 80 kilometre radius of Adelaide, near the processing works and main consumption outlets. Particular concentrations of growers are at Murray Bridge and Gawler, with some broiler growers established in the Adelaide Hills.

#### Poultry Industry, South Australia<sup>(a)</sup> At 31 March

Particulars	1973	1974	1975	1976	1977
			'000		
Hens and pullets . . . . .	1 558	1 671	1 716	1 410	1 255
Other fowls and chickens . . .	2 332	2 728	2 476	2 976	2 708
Ducks . . . . .	26	23	29	18	10
Turkeys . . . . .	33	17	13	12	9
Egg production (b) . . . . .	225 220	216 409	227 382	204 878	186 042

(a) Excludes poultry kept in backyards.

(b) Recorded by the South Australia Egg Board. Year ended 30 June.

#### Egg Industry

The South Australian Egg Board, operating under the Marketing of Eggs Act, 1941-1973, controls the marketing of eggs in this State. The Board determines the price at which it purchases eggs from producers, fixes the wholesale selling price in South Australia, makes available supplies to the local market through its grading agents and arranges with the Australian Egg Board for the export of eggs surplus to local requirements.

A stabilisation scheme, embodying three Acts has been in operation since 1 July 1965. The *Poultry Industry Levy Act 1965* provides for the imposition of a levy, the maximum being \$1.00 annually per hen, on hens not less than six months old kept for commercial purposes. Exemptions from payment are granted on the first twenty hens in each flock and on 'broiler breed hens'. In determining the rate of the hen levy, the Commonwealth Minister for Primary Industry is required to take into consideration any recommendations by the Council of Egg Marketing Authorities of Australia (CEMAA) which consists of all members of State egg marketing boards and is precluded from prescribing a rate in excess of such recommendations. The money obtained from the levy is used to meet trading losses on surplus eggs and sales to overseas markets.

Under the *Poultry Industry Levy Collection Act 1965* the South Australian Egg Board is responsible for the collection of the levy on behalf of the Commonwealth Government. The *Poultry Industry Assistance Act 1965* established a Poultry Industry Trust Fund for the



The broiler industry is a complex system requiring close co-operation between all links in the chain of production. Breeders, multipliers, hatcheries, growers, and poultry processors must combine to ensure efficient and streamlined production. This co-operation has produced a stable and efficient industry, bringing chicken meat to the consumer at a price comparing favourably with other meats. Growers are usually under contract to large broiler processing organisations receiving a price per bird at marketing or a price per kg live weight. Price per kg live weight is the most popular method; under this method the grower provides the shed, equipment and labour and the processor provides the chicken, cost of brooding, feed and medication. Usually the processor has a field service-man who looks after his interests and ensures that growers are correctly rearing and caring for the stock. Nearly all South Australia's production is consumed locally, with some broilers being imported from Victoria and New South Wales.

The following table shows details of poultry slaughtered for human consumption for the last five years.

**Poultry Slaughtered for Human Consumption**  
South Australia<sup>(a)</sup>

Period	Chickens (Broilers, Fryers or Roasters)	Hens and Stags	Ducks and Drakes	Turkeys	Total
NUMBER SLAUGHTERED ('000)					
1972-73 .....	11 124	438	41	17	11 620
1973-74 .....	13 553	521	43	7	14 124
1974-75 .....	15 249	524	24	7	15 805
1975-76 .....	16 177	432	21	7	16 637
1976-77 .....	17 251	466	12	5	17 734
LIVE WEIGHT OF POULTRY SLAUGHTERED (Tonnes)					
1972-73 .....	17 258	1 010	110	97	18 475
1973-74 .....	21 455	1 208	117	35	22 816
1974-75 .....	24 248	1 227	71	42	25 588
1975-76 .....	26 206	978	56	38	27 277
1976-77 .....	28 145	1 109	35	26	29 314
DRESSED WEIGHT OF POULTRY SLAUGHTERED (Tonnes) <sup>(b)</sup>					
1972-73 .....	12 363	677	79	71	13 190
1973-74 .....	15 164	832	86	25	16 108
1974-75 .....	16 773	834	51	31	17 689
1975-76 .....	18 064	661	40	28	18 793
1976-77 .....	19 243	761	25	19	20 048

(a) Excludes geese slaughtered.

(b) Dressed weight of whole birds, pieces and giblets as reported by producers.

### Beekeeping

Beekeeping in South Australia is a small industry—in 1976-77 there were 455 beekeepers with forty or more hives. Most commercial apiarists operate on a migratory basis, following the flowering of the various species of honey flora. The production of honey and beeswax fluctuates considerably from year to year, depending upon seasonal conditions.

Before 1975-76, statistics on beekeeping had been compiled from returns from apiarists with five or more hives. In 1975-76, returns were requested from apiarists with forty or more hives, hence the figures for 1975-76 and 1976-77 in the table below are not comparable with those for earlier years.

Beekeeping, South Australia<sup>(a)</sup>

Season	Beekeepers	Hives		Honey Produced	Yield of Honey per Productive Hive	Beeswax Produced
		Productive	Un-productive			
	No.	No.	No.	'000 kg	kg	'000 kg
1972-73 ..	867	77 852	17 142	3 357	43	57
1973-74 ..	894	84 944	16 730	4 650	55	76
1974-75 ..	978	89 464	18 909	5 510	62	97
1975-76 ..	482	83 870	16 107	4 592	55	80
1976-77 ..	455	75 155	23 128	2 787	37	58

(a) Excludes particulars for producers having less than five hives. From 1975-76 onwards excludes producers with less than 40 hives.

## VALUE OF AGRICULTURAL PRODUCTION

The value of agricultural production may be expressed in terms of gross value, local value and net value. Gross value is the value placed on recorded production at the wholesale prices realised in principal markets. Local value equals the gross value of production less marketing costs, and net value of production equals local value less the value of materials used in the process of production.

Details for the last five years of gross value of agricultural production are given in the following table.

## Gross Value of Agricultural Production, South Australia

Class of Production	1972-73	1973-74	1974-75	1975-76	1976-77 <sup>p</sup>
	\$'000				
Crops (including pastures) ..	177 768	393 618	434 707	374 750	338 279
Livestock slaughterings .....	126 633	164 997	102 786	126 091	178 848
Livestock products .....	198 914	214 779	169 943	177 720	199 862
Total agriculture .....	503 315	773 394	707 436	678 561	716 989

## 9.2 MINING, FORESTRY AND FISHERIES

## MINING

South Australia has a well developed mineral industry and, although iron ore is the major product, the State also has very large resources of industrial minerals which make up a significant proportion of the total annual value of mineral production which exceeded \$152 million in 1976-77.

## MINING ADMINISTRATION

The Mining Act, 1971-1978 reserves all minerals to the Crown and regulates and controls all mining operations in South Australia.

The state and conditions of the mine, machinery, ventilation, and all other matters relating to the safety, health and well-being of the employees and general public are regulated by the Mines and Works Inspection Act, 1920-1974.



The Petroleum Act, 1940-1971 and the Petroleum (Submerged Lands) Act, 1967-1974 provide for the control of petroleum exploration and the production, conservation and distribution of petroleum by pipeline.

The administration of these Acts is the responsibility of the Minister of Mines and Energy and the Director of Mines. The principal functions of the Department of Mines are:

- (i) the administration of mining and petroleum legislation including the granting of mineral leases and collection of royalties and fees;
- (ii) geological and geophysical investigations to ascertain the extent and nature of the State's mineral resources;
- (iii) drilling to test mineral deposits, petroleum reserves and underground water supplies;
- (iv) the testing and treatment of minerals, generally in arrangement with the Australian Mineral Development Laboratories;
- (v) control of mining and rehabilitation.

### MINERAL INDUSTRY STATISTICS

Mining industry data (such as employment, costs, value of output) have been obtained annually since 1952 from the Mining and Quarrying Census carried out in association with the Department of Mines. The details have been collected from establishments employing, on the average, four or more persons, during the period worked by the mine. For smaller mines employing less than four persons, particulars were compiled from data made available by the Department of Mines. Statistics compiled from these Censuses have been published by the Australian Statistician in *Non-rural Primary Industries* bulletins and other publications of the Australian Bureau of Statistics.

In 1968 and earlier years, the annual Mining and Quarrying Census related to years ended 31 December. However, commencing with 1968-69, the Mining Census was changed to a year ended 30 June to conform with the period covered by other economic censuses in Australia.

Because the 1968-69 Census differed from previous censuses, the statistics obtained from it and subsequent censuses are not strictly comparable with statistics of the mining industry which have been published for previous years. Statistics for 1968-69 to 1976-77 have been published by the Australian Statistician in the bulletin *Mining Establishments, Details of Operations* (Catalogue No. 8402.0).

#### Number of Establishments

A mining establishment is one predominantly engaged in an activity specified in Division B of the Australian Standard Industrial Classification (ASIC). The ASIC defines 'mining' as including the extraction of minerals occurring naturally as solids such as coal and ores, liquids such as crude petroleum, or gases such as natural gas, by such processes as underground mining, open-cut extraction methods, quarrying, operation of wells or evaporation pans, dredging or recovering from ore dumps or tailings. Establishments mainly engaged in dressing or beneficiating ores or other minerals by crushing, milling, screening, washing, flotation or other, including chemical beneficiation processes, or mainly engaged in briquetting are included because the processes are generally carried out at or near mine sites as an integral part of mining operations. Natural gas absorption and purifying plants are also included.

The following table shows the number of establishments which operated during the year 1976-77. These relate to mining establishments as such and do not include the numbers of separately located administrative offices and ancillary units.

**Mining Establishments: Number Operating, Persons Employed, Wages and Salaries, by Industry Subdivision, South Australia, 1976-77**

Industry Subdivision	ASIC Code (a)	Number of Establishments Operating at 30 June 1977	Persons Employed (b)			Wages and Salaries	
			Males	Females	Total		
Metallic minerals .....	11	6	1 231	163	1 394	\$ million	
Coal .....	12	1					
Crude petroleum including natural gas .....	13	1					
Construction materials .....	14	61	564	52	616		5.9
Other non-metallic minerals .....	15	31	332	7	339		3.3
<b>Total mining, excluding services to mining .....</b>		<b>100</b>	<b>2 127</b>	<b>222</b>	<b>2 349</b>	<b>25.2</b>	

(a) Australian Standard Industrial Classification.

(b) At 30 June 1976; includes working proprietors.

### Employment

The statistics of the number of persons employed relate to working proprietors at the end of June 1977 and employees on the payroll of the last pay period in June 1977, including those working at separately located administrative offices and ancillary units in the State. Note that persons employed in South Australia (and their wages and salaries) relate to those employed at establishments, administrative offices or ancillary units located in this State, even though the administrative offices or ancillary units may have served establishments located in another State.

### Wages and Salaries

The wages and salaries of all employees of the establishment include those working at separately located administrative offices and ancillary units in the State. Drawings of working proprietors are not included.

### Purchases, Transfers In and Selected Expenses

These figures include purchases of electricity, fuels, stores and other materials, transfers in of goods from other establishments of the same enterprise, charges for processing and other commission work and payments to mining contractors, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.

### Stocks

Figures include all the stocks of materials, fuels, etc., and mine products and work-in-progress of the establishment whether located at the establishment or elsewhere.

### Value Added

Value added is calculated as turnover plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

### Turnover

The following table shows the turnover for mining establishments. Turnover includes sales, transfers out to other establishments of the same enterprise, bounties and subsidies on production, all other operating revenue from outside the enterprise (such as commission, repair and service revenue) and capital work for own use, or for rental or lease. Receipts from rents, leasing, interest (other than hire-purchase), royalties and the sale of fixed tangible assets are excluded.

**Mining Establishments: Turnover and Value Added by Industry  
Subdivision, South Australia, 1976-77**

Industry Subdivision	ASIC Code (a)	Turnover	Stocks at 30 June		Purchases, Transfers in and Selected Expenses	Value Added
			1976	1977		
\$ million						
Metallic minerals .....	11	} 111.1	14.1	9.6	30.8	75.8
Coal .....	12					
Crude petroleum including natural gas .....	13					
Construction materials .....	14	26.0	1.6	1.9	9.1	17.2
Other non-metallic minerals .....	15	24.0	2.8	3.8	13.3	11.7
Total mining, excluding services to mining .....	7	161.0	18.5	15.3	53.1	104.7

(a) Australian Standard Industrial Classification.

**MINERAL COMMODITY STATISTICS**

Mineral commodity statistics published in the *South Australian Year Book* are those recorded by the Director of Mines. The quantity and value of production of the major minerals for the years ended 30 June 1976 and 1977 are listed in the following table.

**Mining and Quarrying Production, South Australia<sup>(a)</sup>**

Mineral	Unit of Quantity	Quantity		Value (b)	
		1975-76	1976-77	1975-76	1976-77
\$'000					
<b>Metallic:</b>					
Copper .....	.. ..	.. ..	.. ..	13 231	14 776
Iron ore .....	'000 tonnes	4 479	3 450	40 086	30 782
Other .....	.. ..	.. ..	.. ..	1 627	349
<b>Non-metallic:</b>					
Barite .....	'000 tonnes	11	8	235	300
Clays .....	'000 tonnes	967	1 024	1 351	1 476
Coal .....	'000 tonnes	1 819	1 919	5 594	7 215
Dolomite .....	'000 tonnes	494	514	1 022	1 082
Gypsum .....	'000 tonnes	735	749	2 312	3 033
Limestone .....	'000 tonnes	1 594	1 726	2 538	2 541
Opal (c) .....	.. ..	.. ..	.. ..	22 000	33 000
Salt .....	'000 tonnes	529	714	2 115	2 854
Talc, soapstone .....	'000 tonnes	11	19	252	404
Other .....	.. ..	.. ..	.. ..	689	823
Construction material quarrying	'000 tonnes	13 227	14 382	22 546	26 342
Natural gas .....	millions of m <sup>3</sup>	1 447	2 006	(d)16 250	27 993
<b>Total .....</b>	.. ..	.. ..	.. ..	131 847	152 972

(a) Quantities disposed of as recorded by the Director of Mines.

(b) Ex-mine site.

(c) Estimated.

(d) Value at Moomba plant outlet.

Details of mining of individual minerals are given below. Reference should also be made to Part 1.3 which contains particulars of the location of mineral resources.

### Iron Ore

The only proved high grade iron ores of South Australia lie in the Middleback Ranges to the west of Whyalla. The ranges are composed primarily of iron-rich rocks in which occur local concentrations of high grade ore.

The Iron Monarch deposit near Iron Knob has provided the bulk of the iron ore for Australia's steel industry for many years. Production from this and the smaller deposits of Iron Prince and Iron Baron is maintained by the Broken Hill Proprietary Company Limited (BHP)—in 1976-77 production was 3.5 million tonnes, a decrease of twenty-two per cent from 1975-76. This fall was due mainly to lower demand and to BHP's use of increased quantities of iron ore from Mount Newman, Western Australia, for the steel works in New South Wales. The bulk of the South Australian ore is shipped to Newcastle and Port Kembla, but a proportion is exported in pellet form and some is used for the production of iron in the Whyalla blast furnaces. The molten iron is transferred from the blast furnace to the basic oxygen steel plant, where ingot steel is produced for use in the Whyalla rolling mills.

Reserves of high grade iron ore are estimated at about 160 million tonnes. The grade of ore at more than 60 per cent iron is high by world standards. In view of the known limitation of high grade ore, BHP has carried out an active exploration program, and is also planning future use of the very large reserve of low grade siliceous ores known to exist in the Middleback Ranges.

### Copper

Copper mining was very important in the early days of the settlement of South Australia. The rich discoveries at Kapunda in 1842, Burra in 1845, and Wallaroo-Moonta in 1859-60 came at a time when the colony's development was stagnating and severe financial difficulties were being encountered. Many small copper mines, scattered throughout the central metalliferous areas, were also opened but most of the mines only lasted until the richer secondary copper cut out at depths mostly less than 150 metres.

From 1842 to 1923, when the great Wallaroo-Moonta mines closed, copper was by far the State's most important mining produce. The copper products accounted for over eighty per cent of the State's recorded mineral production (construction materials were not recorded and so not included). The copper products sold during this period contained 450 000 tonnes of copper metal and were worth \$33 million giving an average of \$72 per tonne of copper in the products.

During the next forty-five years (1924-1968), until the commencement of the mining boom, copper production was very small and intermittent with a production of only 5 600 tonnes of copper in the mineral products.

The renewed interest in copper mining during the boom led to the discovery of new, but lower grade, ore bodies at the old copper fields of Kanmantoo and Mount Gunson, and the working of remnant low-grade ore at Burra. These deposits are worked by open-cut methods which can produce much larger tonnages than the underground methods used to produce most of South Australia's copper during the earlier period of copper mining.

There were only two copper producers in 1976-77 because the continued low-world copper prices had caused the closure of the smaller producers and Kanmantoo mine which is being run on a care and maintenance basis until world copper demand increases. In 1976-77 the Mount Gunson and Burra mines together produced 16 755 tonnes of copper in the concentrates and copper oxide which they sold. This was 9 per cent lower than the output of 18 433 tonnes of copper for 1975-76.

Ninety-one per cent of the production came from the Mount Gunson mine which sells copper sulphide flotation concentrates to Japanese smelters. The Samin Company at Burra uses the ammonia leaching process to produce high quality black copper oxide of seventy-seven per cent grade copper which is sold direct to industry in Australia and overseas.

The ex-mine site value of the copper products sold in 1976-77 was \$14.8 million.

### **Zinc**

In South Australia the only production of zinc comes from a high grade (about forty per cent zinc) deposit of zinc silicate found at Puttapa near Beltana in the Flinders Ranges. Several other smaller occurrences of this unusual zinc ore have been found in this part of the State but they are not being mined at present. The deposit is high enough grade not to need concentration but is mined, crushed, and then sent to various markets in Europe, Africa and to Risdon in Tasmania with small amounts going direct to the Australian fertiliser industry for use as trace element supply for zinc deficient soils.

In 1976-77, 4 643 tonnes of zinc silicate ore of thirty-eight per cent zinc grade, worth about \$325 000, was sent to overseas and Australian users. This was a reduction of about eighty per cent on 1975-76 production.

### **Barite**

There are widespread occurrences of barite (barytes) throughout the Adelaide System rocks of South Australia. Deposits are located in a number of areas including the Mount Lofty and Flinders Ranges and also the Olary district. Barite is still used in the paint and other industries, but the main use is in drilling mud for oil exploration where the grade does not have to be so high. Production of barite totalled 8 300 tonnes in 1976-77.

The company operating the Oraparinna Mine in the Flinders Ranges is the major Australian producer of barite.

### **Gypsum**

South Australian deposits contain by far the largest part of Australian reserves of gypsum. The deposits in general have been formed in coastal basins cut off from the ocean, giving rise to extensive deposits of rock gypsum. The most important coastal deposits are found at Lake MacDonnell and on Kangaroo Island. Inland deposits mainly of seed gypsum occur at Moonabie, Lake Fowler, Cooke Plains and along the Murray River. The gypsum deposits have been worked extensively over the past fifty years to provide the bulk of Australasian requirements for the plaster industry and for portland cement manufacture. Production reached 749 000 tonnes in 1976-77.

Reserves of high grade gypsum at Lake MacDonnell have been proved by the Department of Mines to exceed 500 million tonnes, sufficient to meet Australasian requirements for the plaster industry and for portland cement for many years. The port of Thevenard, 55 kilometres from the deposit by rail, has been deepened to accommodate larger ships of up to 20 000 tonnes capacity.

### **Salt**

The semi-arid climate and high evaporation rate along much of South Australia's coastline, together with the high salinity of the gulf waters, create very favourable conditions for the production of salt by solar evaporation. In the early days the availability of sites close to cheap transport led to the establishment of solar salt works at the head of

Spencer Gulf near Port Augusta and at Whyalla, at Price on the eastern shore of Yorke Peninsula, and in 1940 at Dry Creek near Adelaide. In addition several operators recover salt from shallow salt-lakes on Yorke Peninsula and elsewhere.

At present South Australia produces about 714 000 tonnes of salt annually. The industry in South Australia is capable of expansion, but the future export market appears to have been largely captured by salt development in Western Australia.

### **Opal**

The estimated value of raw opal production in 1976-77 was \$33 million, a slight increase on 1975-76. In terms of value it was the most important mineral produced in South Australia during 1976-77. Overseas exports of opal from South Australia during 1976-77 were reported at \$10.5 million but additional large quantities were exported through other States.

In spite of the value of opal being won at present, opal mining remains a small scale operation at Andamooka and Coober Pedy. The distances from Port Augusta to Andamooka and from Port Augusta to Coober Pedy are 290 and 630 kilometres respectively.

Mining at both centres is relatively shallow, rarely exceeding 30 metres. During 1976, two new fields were discovered at Andamooka as a result of a subsidised mining program by the Department of Mines and areas of potential opal bearing ground have been outlined. New finds at Stuart Creek, north of Andamooka, and Mintabie, north of Coober Pedy produced rushes to each field.

### **Talc**

The principal occurrences of talc are to be found at Mount Fitton in the northern Flinders Ranges and in the Gumeracha and Lyndoch districts. From these sources 19 052 tonnes were mined in 1976-77. The Mount Fitton talc is particularly high grade, and is in demand for use by the cosmetic industry. Lower grade material is used in the rubber, paint, and ceramics industries. Bulk samples have been taken from the Tumbay Bay deposit on Eyre Peninsula to enable the quality to be tested.

### **Coal**

South Australia is deficient in accessible bituminous coal resources and the only mining is of sub-bituminous coal at Leigh Creek. The present development of the field commenced with Department of Mines drilling operations in 1941. The Electricity Trust of South Australia assumed control of the field in 1948 and developed it as a source of fuel for the Port Augusta power station. Meanwhile testing by the Department of Mines continued for some years, proving a total of 52 million tonnes of coal available by open-cut methods and a further 370 million tonnes of underground reserves. Changing economic conditions have caused these estimates to be revised to 150 million tonnes and 280 million tonnes respectively, of which approximately 35 million tonnes has been mined to date by open-cut methods.

Coal production in 1976-77 was approximately 1.9 million tonnes. Almost the entire production is railed to Port Augusta for use in power generation.

### **Natural Gas**

The natural gas production in 1976-77 was 2 006 million cubic metres valued at the plant outlet at \$28.0 million, a twenty-five per cent increase in volume and a forty-nine per cent increase in value.

**Limestone and Dolomite**

The combined quantity of limestone and dolomite extracted for use in industry (*i.e.*, excluding road stone, etc.) each year is approximately two million tonnes. The principal deposits mined are limestone at Rapid Bay and dolomite at Ardrossan for the steel industry; limestone at Penrice, near Angaston, for the chemical and cement industries; and limestone at Klein Point for the cement industry. Details of limestone production for the years 1973-74 to 1976-77 are given in the following table.

**Limestone Production, South Australia**  
(Excluding Limestone Used as Building Stone, Road Materials, Etc.)

Classification	1973-74	1974-75	1975-76	1976-77
	'000 tonnes			
Flux .....	385	297	287	298
Cement .....	855	839	903	957
Chemical .....	366	387	370	420
Other .....	27	11	35	51
Total .....	1 633	1 535	1 594	1 726

**Clay**

South Australia possesses a wide variety of clays which are used for industrial purposes such as cement manufacture, building bricks and roofing tiles, refractory ware, pottery and ceramic purposes.

Because of the scarcity of local timber supplies, softwood excepted, much greater use is made of clay bricks for construction in South Australia than in other parts of Australia. The clay brick industry is concentrated near Adelaide. There are also widely distributed occurrences of special clays for ceramic and refractory ware.

The Department of Mines, together with the Australian Mineral Development Laboratories, is continually engaged in investigations relating to the usage of clay deposits encountered during geological surveys throughout the State.

Details of clay production for the years 1973-74 to 1976-77 are given in the following table.

**Clay Production, South Australia**

Classification	1973-74	1974-75	1975-76	1976-77
	'000 tonnes			
Brick clay and shale .....	700	671	797	864
Cement clay (shale) .....	84	91	123	129
Fire clay .....	27	29	29	14
Kaolin and ball clay .....	10	13	10	13
Pottery clay .....	1	17	7	4
Total .....	822	821	967	1 024

**Construction Material Quarrying**

Post-war industrial expansion, accompanied by extensive housing programs and highway construction, has resulted in a rapidly increasing demand for construction

materials. Production of aggregate, sand and roadstone (including all building stone) was 14.4 million tonnes in 1976-77 compared with 2.2 million tonnes in 1947.

#### Road and Other Construction Materials, South Australia

Type of Material	1973-74	1974-75	1975-76	1976-77
	'000 tonnes			
Limestone .....	4 281	3 553	3 043	2 376
Quartzite .....	3 917	3 461	3 384	3 471
Sand .....	2 619	2 419	2 690	2 990
Other materials .....	3 533	3 514	4 069	5 518
<b>Total .....</b>	<b>14 350</b>	<b>12 948</b>	<b>13 186</b>	<b>14 355</b>

A variety of building stones is quarried, including, Mount Lofty sandstone, a white stone which hardens in the atmosphere; Basket Range sandstone, a light coloured stone of pleasing appearance; and Mount Gambier limestone, a bryozoal limestone of the South East. Limestone deposits have also been worked at Overland Corner, Cadell and Waikerie. A quantity of granite is extracted each year and marble occurrences are worked at Angaston, Kapunda, Macclesfield and Paris Creek. The main sources of slate in South Australia are at Mintaro and Jones Hill in the northern Flinders Ranges. Both areas supply paving slate and a large quantity is dressed and polished for use in billiard tables. A quantity of paving material is also being obtained from Wistow near Mount Barker.

#### Building Stone, South Australia

Type of Stone	1973-74	1974-75	1975-76	1976-77
	'000 tonnes			
Granite .....	8.6	5.0	2.8	3.1
Gravel .....	0.5	0.6	0.5	0.3
Limestone .....	23.9	16.5	20.1	15.3
Marble .....	7.9	7.4	7.2	3.8
Quartz .....	0.2	0.2	—	—
Sandstone .....	6.0	5.0	3.9	1.6
Slate .....	4.3	7.0	7.0	3.2
<b>Total .....</b>	<b>51.5</b>	<b>41.6</b>	<b>41.4</b>	<b>27.3</b>

#### MINERAL DEVELOPMENTS

In October 1972, agreement was reached between the consortium of companies developing the petroleum resources of the Cooper Basin and the Australian Gas Light Company to supply natural gas to the Sydney area. Natural gas deliveries into the Moomba-Sydney pipeline commenced on 22 August 1976, and gas reached the Sydney terminal at Wilton on 16 December 1976. Additions to production facilities have become essentially continuous. There are now forty-four wells completed for production in the three producing fields of Gidgealpa, Moomba and Big Lake, and gathering system expansion is continuing. In the Moomba gas processing plant, the fourth train was commissioned early in 1976 and additional boiler, electricity generation and hydrocarbon recovery capacity is being installed to improve performance and reliability.



The Cooper Basin Unit Agreement and a large number of associated documents were executed on 21 December 1976. The main effect of these is to pool the available reserves and develop them under a single agreed plan, instead of piecemeal development of a number of simultaneous projects. This should also result in development at minimum cost. The agreement was made possible by the Cooper Basin (Ratification) Act, 1975.

The Redcliff petrochemical project, based on Cooper Basin hydrocarbons and salt produced in the Port Augusta area, is still under consideration.

Indications of a dramatic upturn in mineral exploration became evident in late 1976 with the announcement by Western Mining Corporation Ltd. of a major copper discovery at Roxby Downs, 260 kilometres north of Port Augusta in a new area west of Andamooka. This has stimulated interest in the entire area of the Stuart Shelf and has resulted in a large number of applications for exploration licences.

Coal investigations by private companies lessened during 1976-77 but this was offset by intensive exploration programs instigated by the Department of Mines and the Electricity Trust of South Australia (ETSA). ETSA completed the assessment of the deeper Leigh Creek coal resources and mining is planned there until at least the year 2005.

The Department of Mines has commenced an extensive coal exploration program in search of steaming coal for future power generation. More than \$200 000 will be spent on this exploration project, a combined program involving both ETSA and the Department of Mines.

The testing by Utah Development of the Lake Phillipson coal deposits (found originally in 1905) has indicated that the total recoverable quantity could exceed 2 000 million tonnes. These deposits of medium to low grade steam coal, which have a marginally higher calorific value than Leigh Creek coal, are located about ninety kilometres south of Coober Pedy and near the proposed Tarcoola-Alice Springs railway.

Uranium has been reported to be associated with the newly discovered copper deposits at Roxby Downs, west of Andamooka. The Department of Mines, in association with the Australian Mineral Development Laboratories (AMDEL), is assisting in limited investigations into the possible future development of small deposits of uranium in the Lake Frome area by *in situ* leaching.

Mapping and shaft sinking by the Department of Mines have proved the opal level to exist in several previously untested areas in the Andamooka area. As a result two new fields were established. Work has also begun at Coober Pedy and Stuart Creek, north of Andamooka.

At 30 June 1977, 109 exploration licences were current, involving thirty-nine companies. The total area held under licence was approximately 107 000 square kilometres.

The Australian Mineral Foundation Inc., established at Frewville four kilometres to the east of the centre of Adelaide, provides short-term specialist training at professional and sub-professional levels for the mining and petroleum exploration and production industries.

The Australian Mineral Development Laboratories (AMDEL), also at Frewville, continue to carry out valuable research, development and laboratory service work for the mineral industry of Australia and neighbouring countries.

The Department of Mines spent \$5.5 million in 1976-77 (\$4.5 million in 1975-76) on geological and other investigations, drilling and mineral research work to assist the State's mineral industry.

The following table shows details of private mineral exploration, other than petroleum, in South Australia for 1975-76 and 1976-77.

Private Mineral Exploration (Other than Petroleum), South Australia<sup>(a)</sup>

Particulars	Unit	On Current Producing Leases		On Other Areas		Total Private Exploration	
		1975-76	1976-77	1975-76	1976-77	1975-76	1976-77
Depth drilled:							
Core .....	'000 m	—	—	13	19	13	19
Non-core .....	'000 m	—	—	130	85	130	85
<b>Total depth drilled</b>	<b>'000 m</b>	<b>—</b>	<b>—</b>	<b>142</b>	<b>104</b>	<b>142</b>	<b>104</b>
Expenditure:							
Drilling:							
Core .....	\$'000	—	—	603	892	603	892
Non-core .....	\$'000	—	n.a.	920	n.a.	920	823
<b>Total drilling</b>	<b>\$'000</b>	<b>—</b>	<b>n.a.</b>	<b>1 524</b>	<b>n.a.</b>	<b>1 524</b>	<b>1 715</b>
Other .....	\$'000	n.a.	—	n.a.	4 378	3 594	4 378
<b>Total expenditure</b>	<b>\$'000</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>5 118</b>	<b>6 093</b>

(a) Excludes exploration for water and all development work. Excludes details of exploration by business undertakings operated by State and local government authorities.

Details of private petroleum exploration and development for South Australia are shown in the following table for the years 1973 to 1976.

## Private Petroleum Exploration and Development, South Australia

Particulars	Unit	1973	1974	1975	1976
Wells drilled (a) .....	No.	6	1	6	3
Depth drilled .....	'000 m	21.1	2.4	9.9	6.2
Expenditure:					
Private sources .....	\$'000	1 871	2 205	12 530	5 257
Government subsidy (b) .....	\$'000	414	187	266	—
<b>Total expenditure</b>	<b>\$'000</b>	<b>2 285</b>	<b>2 392</b>	<b>12 796</b>	<b>5 257</b>

(a) Number of wells reaching total depth during year.

(b) Payments under the *Petroleum Search Subsidy Act 1959*.

## FORESTRY

There are an estimated 6 million hectares of land classified as wooded in South Australia, but much of this is too small or scattered to be of current economic value for wood production or is better retained in its present form for environment protection reasons. Some 780 000 hectares carry forest or forest woodland, a decreasing part of which is still exploited for minor quantities of timber and fencing or firewood materials. Many of the forested or wooded areas are of considerable value for soil conservation, watershed protection, shelter, shade, conservation of indigenous plants and animals, and natural scenery.

Certain areas have been set aside as State forest reserves, the total area thus reserved at 30 June 1977 being 129 000 hectares. In addition the Woods and Forests Department is responsible for 2 176 hectares of reservoir lands, of which 1 084 are planted with pines.

In recent years the total area reserved has varied little, mainly because of the increasing unavailability of land. The net increase over the last five years was 4 643 hectares. During the same period the area under plantation on Forest Reserves increased by 6 505 hectares.

A more detailed history of forestry development in South Australia was included on pages 432-4 of the *South Australian Year Book* 1970.

### Indigenous Forests

The natural forests of South Australia consist of eucalypt hardwoods restricted principally to the Mount Lofty Ranges, the lower Flinders Ranges, the southern portion of Eyre Peninsula, and the South East. A few species are of commercial value and these are used to a limited extent for the production of poles, posts, rails and sleepers.

Some areas of forest reserves not planted with conifers are maintained under native hardwoods but it is unlikely that further hardwood plantations will be established for timber purposes.

### Plantations

Seedlings raised in nurseries are planted out in the forest at densities of 1 700-2 200 trees to the hectare. A series of thinnings, starting when the trees are about 20 metres high, reduces density to about 150 trees to the hectare by about age forty. These thinnings are carried out on a commercial basis and make the major contribution to present timber and pulpwood output. The final felling age is aimed at forty to fifty years although for management purposes some earlier felling has been made in the past. Trees of the same age may vary in height; on some sites trees reach 20 metres after ten years of growth, but on other sites this height may not be reached until after twenty years of growth.

Exotic softwoods accounted for approximately 99 per cent of the planted forest area at 31 March 1977. As can be seen from the accompanying table, the majority of the planted forest is in the Lower South East. The 625 mm rainfall line roughly divides the South East in two; the Lower South East, with an annual rainfall in excess of 625 mm is quite suitable for commercial forestry, but the Upper South East is not.

**Forests, South Australia**  
**Area Planted During 1976 and Net Area of Plantations at 31 March 1977**

Location	Planted during 1976			Plantations at 31 March 1977		
	Softwoods		Hard-woods	Softwoods		Hard-woods
	<i>Pinus Radiata</i>	Other Pinus		<i>Pinus Radiata</i>	Other Pinus	
Hectares						
State forests:						
Northern Region;						
Bundaleer .....	—	—	—	1 363.9	35.8	196.5
Wirrabara .....	127.4	—	—	1 920.4	69.0	39.6
Other forests .....	—	—	—	—	—	146.6
Total Northern .....	127.4	—	—	3 284.3	104.8	382.7

**Forests, South Australia**  
**Area Planted During 1976 and Net Area of Plantations at 31 March 1977 (continued)**

Location	Planted during 1976			Plantations at 31 March 1977		
	Softwoods		Hard-woods	Softwoods		Hard-woods
	<i>Pinus Radiata</i>	Other Pinus		<i>Pinus Radiata</i>	Other Pinus	
	Hectares					
Central Region;						
Mount Crawford .....	299.5	—	0.9	5 843.4	368.2	41.7
Kuitpo .....	83.3	—	—	2 196.0	382.6	114.0
Blackwood .....	—	—	—	7.4	—	—
Second Valley .....	118.4	1.3	—	1 701.5	193.8	11.8
Total Central .....	501.2	1.3	0.9	9 748.3	944.6	167.5
Riverland Region;						
Parilla .....	—	—	—	—	6.1	48.6
Other forests .....	—	—	—	—	—	—
Total Riverland .....	—	—	—	—	6.1	48.6
South Eastern Region;						
Penola .....	84.3	—	—	12 269.0	1 887.8	1.2
Comaum .....	40.5	—	—	2 898.4	304.0	6.7
Mount Burr .....	139.0	—	—	9 198.0	593.1	76.8
Noolook .....	266.4	—	—	3 054.4	4.0	—
Mount Gambier .....	225.6	—	0.2	6 825.7	701.0	7.7
Kongorong .....	—	—	—	1 328.3	6.3	—
Tantanoola .....	184.9	—	—	7 928.1	989.6	6.3
Caroline .....	—	—	—	6 276.0	668.3	—
Myora .....	11.2	—	—	5 850.4	226.5	—
Cave Range .....	—	—	—	206.9	105.2	—
Total South Eastern	951.9	—	0.2	55 835.2	5 485.8	98.7
Western Region;						
Wanilla .....	—	1.2	1.0	46.6	24.7	350.5
Waterworks reserves .....	38.2	—	2.1	957.7	126.0	1.5
Total State forests .....	1 618.7	2.5	4.2	69 872.1	6 692.0	1 049.5
Total private forests	382	—	—	17 103	—	99
Total forests .....	2 003.2	—	4.2	93 667.1	—	1 148.5

The previous table clearly illustrates the predominant importance of one species, *Pinus radiata*, in the composition of South Australian forests. Areas of other species are now minor, although over a hundred species have been tried in earlier years.

## FOREST ADMINISTRATION

### State Forests

State forests are administered by the Woods and Forests Department which is responsible for the establishment, maintenance and exploitation of State forests, including the management of forest reserves and operation of mills for processing timber produced by those forests. The Forest Reserves are organised into Districts and are under the charge of professionally trained foresters. The Department is also the major timber producer in South Australia, and operates three sawmills and two wood preservation plants through its Commercial Division.

In earlier years, when large areas of plantations were being established, expenditure by the Department exceeded revenue, but since 1942-43 the revenue has exceeded expenditure including depreciation and interest on loans. By 1954-55 accumulated surpluses had matched expenditure on establishment and maintenance of plantations, and annual surpluses of the Department are now paid to Consolidated Revenue.

Funds employed by the Woods and Forests Department, including its milling operations, amounted to \$52 908 898 at 30 June 1977 of which \$29 787 536 was timber and land at net cost. The present value of the State-owned pine forests is approximately \$155 million.

### Private Forests

Private forests accounted for approximately 18 per cent of the planted area at 31 March 1977. Two private companies operating pine plantations in the South East control the bulk of private forest land, with the balance representing a large number of holdings of a few hectares on farming properties throughout the State.

## PRODUCTION

The following table gives the quantity of forest logs used during the years 1972-73 to 1976-77.

Forest Log Usage, South Australia

Year	Softwoods	Hardwoods
	Cubic Metres	
1972-73 .....	918 744	5 909
1973-74 .....	902 929	5 197
1974-75 .....	902 142	7 017
1975-76 .....	953 704	6 746
1976-77 .....	987 983	3 878

Log production is met from final fellings and thinning operations, and planned forest management ensures that the amount of timber cut each year does not exceed new growth. For many years thinnings have provided the bulk of the logs produced but with the increasing age of the plantations the quantity of logs coming from final fellings is rising. In 1976-77 approximately forty per cent of total log production was from final fellings. With the increasing area of forest reaching the stage of regular and repeated thinning at intervals of about seven years, log production is rising steadily towards the full annual yield which can be cut indefinitely.

## PRODUCTION

## EMPLOYMENT

The number of persons directly employed by the Woods and Forests Department in forestry activity in recent years is given below. The Department also employs 826 persons in milling activities.

**State Forestry Employees, South Australia**  
**At 30 June**

Classification	1973	1974	1975	1976	1977
Professional staff:					
Foresters .....	53	51	53	49	49
Other .....	31	29	26	28	27
Non-professional field staff .....	31	35	38	42	42
Clerical staff .....	122	130	122	132	131
Labour (silvicultural forest works, etc.) .....	275	281	314	305	262
Total .....	512	526	553	556	511

The extraction of timber from State forests is carried out by contractors.

## RESEARCH AND ADVISORY SERVICES

The virtual dependence of the South Australian forestry industry on a single species necessitates continued research into the maintenance and improvement of *Pinus radiata* resources, as well as into forestry in general.

The Woods and Forests Department maintains its own research facilities and works very closely with the South Australian Regional Station of the Division of Forest Research of the Commonwealth Scientific and Industrial Research Organization (CSIRO) at Mount Gambier. Certain aspects of forestry research are also undertaken by the Soils Division of CSIRO, the Waite Agricultural Research Institute, the University of Adelaide, the Flinders University and the Department of Forestry of the Australian National University.

Research activities aimed at an expansion of forestry production include the development of fertiliser use, both to stimulate growth and to bring into production, land previously considered unsuitable, and the improvement of planting stock through selective breeding. Silvicultural research is concerned with the maintenance of soil fertility and with combating various diseases and pests. Permanent sample plots are maintained in departmental forests for research into various aspects of forest yield and management.

The Woods and Forests Department provides an advisory service in arboriculture and distributes, through its nurseries at Monarto, Belair and Berri, a wide variety of trees suitable for planting in various climatic and soil conditions.

## FOREST PROTECTION

The hot dry summer conditions normal to the State require forest management to take considerable precautions and to maintain constant vigilance against forest fire. The clearing of undergrowth, the maintenance of fire-breaks, the manning of observation towers and the constant readiness of fire fighting units are all an integral part of forestry practice.

Other protective measures include spraying to prevent disorders, measures to control insect pests in the forest, and the eradication of the various weeds and pests which threaten young plants.

Since the discovery of the *Sirex* wood wasp in Victorian forests in 1961 constant watch has been maintained for any sign of this pest in South Australian pine forests, and the State has contributed to development of biological control measures.

### FISHERIES

The entire coastline of South Australia, except for the unpopulated area west of Fowlers Bay, is fished commercially. In the sheltered waters of the gulfs, Kangaroo Island, the Coorong and the West Coast bays, there are prawn, net and handline fisheries; in the open off-shore waters tuna, lobster and shark are sought and on exposed coasts abalone are taken. Inland in the River Murray a small quantity of fresh water fish is caught each year.

### ADMINISTRATION

Exploitation of the State's fish resources is controlled by three Acts, the South Australian Fisheries Act, 1971-1977, the Commonwealth *Fisheries Act* 1952 and the *Continental Shelf (Living Natural Resources) Act* 1968.

Under the State Act, which is administered by the Department of Agriculture and Fisheries, provision is made for the licensing of fishermen and the registration of boats and gear. Control of fishing activity is maintained by licence limitations, the establishment of size limits, closed areas and closed seasons, the regulation of amount and type of gear, the prohibition of the use of explosive or noxious substances in any waters and the establishment of aquatic resources.

The South Australian Fisheries Act, 1971-1977 provides for two classes of fishing licences: Class A (full-time) and Class B (part-time). However, in June 1977 the Minister of Fisheries announced a 'freeze' on the number of licences to take scale fish until a major review of that fishery had been carried out by the Fisheries Division to ascertain the number of fishermen the fish stocks would support. This was brought about by the declining catches of scale fish over recent years.

The number of authorities to take prawns, rock lobster and abalone have been limited for some years (rock lobster since September 1967, prawns and abalone since February 1968).

In June 1977 the Fisheries Act Amendment Act, 1976-1977 obliged the Director of Agriculture and Fisheries to ensure that no fishing licence is granted in any case where a relevant fishery may be prejudiced by the granting of a licence.

### FISHING BOATS

Vessels exceeding 20 metres in length are engaged primarily in tuna fishing and prawn trawling while the majority of vessels in the 8 metres to 20 metres range are used for rock lobster fishing. Abalone divers generally operate from small aluminium or fibreglass boats between 5 metres and 10 metres in length. The remainder are engaged mainly in handline and net fisheries. Boats and equipment were valued at \$48.6 million in 1976-77.

Details of the number of boats engaged in commercial fishing activities are shown in the following table.

## Fishing: Boats Engaged, South Australia

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
Boats engaged:					
Under 6 metres .....	1 596	1 771	1 150	1 000	1 077
6 metres and under 9 .....	376	410	327	292	307
9 metres and under 12 .....	175	181	162	167	178
12 metres and under 15 .....	104	114	108	109	116
15 metres and under 18 .....	34	42	39	42	46
18 metres and under 21 .....	17	21	19	22	23
21 metres and over .....	12	19	19	18	17
Total .....	2 314	2 558	1 824	1 650	1 764

## PRODUCTION

## Fish

Tuna, Australian salmon, shark, whiting, snapper and garfish are the most important marine species taken in South Australian waters.

Tuna are taken in the waters west and south of Eyre Peninsula and Kangaroo Island. Occasional catches are taken beyond the continental shelf. Although purse-seining has been attempted, the most successful technique to date is pole fishing with live bait. The use of spotting aircraft has increased the efficiency of fishing operations. Most tuna are landed at Port Lincoln or Streaky Bay although occasional landings have been made at Port Adelaide.

Whiting are taken commercially in Spencer and St Vincent Gulfs, Investigator Strait and the West Coast bays. In many areas hand lining continues to provide profitable catches as this fish attracts a high price. In other areas of the gulfs and the West Coast large quantities of whiting and garfish are netted.

Shark fishing extends from the Victorian border in the east to Fowlers Bay in the far west. The main landing ports are the South East lobster ports, Port Adelaide, Port Lincoln and Streaky Bay. Shark are taken by long line and, more recently, by mesh netting. A decline in shark catches occurred after 1972 because some of the larger shark contained more than the 0.5 parts per million of mercury permitted in Victoria where the majority of South Australian shark is sold.

Australian salmon provides useful off-season fishing for a number of tuna fishermen with the best catches being taken in Spencer Gulf and around Kangaroo Island. Most of these fish are landed at Port Lincoln for canning. In the South East large quantities of salmon trout are netted for rock lobster bait. Of other species, mulloway and snapper are regarded highly as table fish. Mulloway are netted in the River Murray Mouth area and snapper are taken by hand and long line in most areas of the State, and by netting in shallower parts of the gulfs and West Coast bays.

Approximately 120 part-time commercial fishermen using drum nets, gill nets and set lines are engaged in fishing on the River Murray and Lakes area. This is the only commercial source of fresh water fish in the State because of the general lack of permanent streams and lakes. The river has been sectioned into 'reaches' and 'reserves' and each commercial river fisherman is issued with a permit to fish a separate reach.

Production in 1976-77 was valued at \$8 990 000, the gross values of the major species being:



	\$
Tuna .....	3 961 000
Whiting .....	2 169 000
Snapper .....	432 000
Garfish .....	672 000
Australian salmon .....	328 000
Shark .....	528 000
All other .....	900 000
	8 990 000

The main commercial fish species, together with their production in recent years, are listed in the following table.

**Fish: Production by Species, South Australia**  
Estimated Live Weight

Species	1972-73	1973-74	1974-75	1975-76	1976-77
			'000 kg		
<b>Marine:</b>					
Australian salmon .....	799	1 897	873	680	986
Bream (black) .....	25	14	23	18	16
Garfish .....	552	539	487	463	340
Mullet .....	353	408	252	427	320
Mulloway .....	56	55	107	67	128
Ruff .....	241	209	211	227	259
Shark .....	618	1 161	459	1 546	944
Short finned pike .....	134	160	136	118	120
Snapper .....	541	445	284	307	305
Tuna .....	6 696	7 403	4 842	7 530	8 941
Whiting .....	959	823	977	991	710
Other marine species .....	130	129	155	133	439
Total .....	11 104	13 243	8 806	12 507	13 508
<b>Freshwater:</b>					
Golden perch (callop) .....	24	80	190	188	<i>n.a.</i>
Murray cod .....	12	9	4	5	<i>n.a.</i>
Bony bream .....	339	315	58	51	<i>n.a.</i>
Tench .....	248	224	42	1	<i>n.a.</i>
Catfish .....	15	14	7	7	<i>n.a.</i>
Other freshwater species .....	47	103	201	369	<i>n.a.</i>
Total .....	686	745	502	621	<i>n.a.</i>
<b>Total fish production .....</b>	<b>11 790</b>	<b>13 988</b>	<b>9 308</b>	<b>13 128</b>	<i>n.a.</i>

### Crustaceans

The prawn fishing industry operates in Spencer and St Vincent Gulfs, Investigator Strait and on the West Coast of the State. Since 1975-76 it has been South Australia's most valuable single fishery valued at approximately \$9 million annually.

**Prawn Production, South Australia**

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
Estimated gross weight ( <sup>'000</sup> kg) .....	1 789	2 921	2 530	2 579	2 831
Value (\$ <sup>'000</sup> ) .....	2 997	3 797	3 795	7 762	9 727

Southern rock lobster are taken by pots from the shore to the edge of the continental shelf. The south-east coast between Kingston and the Victorian border is the main fishing area. Good catches are also taken from grounds around Kangaroo Island, near the Althorpe Islands and Port Lincoln, and along the West Coast. Rock lobster is one of South Australia's most important fisheries. However, with over 80 per cent of the catch exported annually, mainly to the United States of America, its profitability is dependent on overseas markets.

**Rock Lobster Production, South Australia**

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
Estimated gross weight ( <sup>'000</sup> kg) .....	2 958	2 637	1 862	2 228	1 906
Value (\$ <sup>'000</sup> ) .....	6 325	6 223	4 672	6 351	6 611

To prevent over exploitation, both the rock lobster and prawn fisheries are 'limited entry' fisheries with constraints being placed on the number and size of vessels that may fish and the type of gear that can be used. The rock lobster fishery is experiencing some difficulties because of over-capitalisation and an economic appraisal is being undertaken of this industry.

**Molluscs**

Abalone are found in greatest numbers at depths of 12 to 30 metres on the extensive limestone bottom off the shores of western Eyre Peninsula. Smaller numbers are taken in Spencer Gulf, around Kangaroo Island and off the South East coast. As yet there is no domestic market for this mollusc. Overseas exports of abalone from South Australia during 1976-77 were valued at \$790 204.

All abalone divers must hold a commercial fisherman's licence as well as a special abalone permit issued by the Department of Agriculture and Fisheries.

**Abalone Production, South Australia**

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
Gross (in shell) weight ( <sup>'000</sup> kg) .....	900	757	608	616	675
Value (\$ <sup>'000</sup> ) .....	655	752	618	846	1 533

Squid and cuttlefish are taken in the general net fisheries and mainly sold for bait, although the domestic squid market for human consumption is increasing.

At present several private consortiums are interested in farming the Pacific oyster. This oyster was introduced into the State in September 1969 from Tasmania. Farms have been established in seawater ponds at Dry Creek, 28 kilometres north of Adelaide, at Coffin Bay and near Edithburgh where young oysters (spat) are imported annually and grown to market size. The marketing of oysters from the Dry Creek farm commenced in February 1977.

### MARKETING AND PROCESSING

Marketing and processing arrangements vary according to the species. Tuna are landed at Port Lincoln and then canned for local consumption or frozen for export. Large catches of salmon are generally landed and canned at Port Lincoln, a deep sea port. Southern rock lobster are tailed and frozen for export at most of the main ports, but some are cooked for local consumption. Some prawns are cooked and sold locally but most are frozen and exported. Abalone are either canned or frozen for export. Shark are gutted and headed at sea and are frozen at the port of landing for interstate markets. Other fish are generally iced for dispatch to the Adelaide market or are scaled, filleted and frozen for general distribution.

All of the main landing ports have chilling or freezing facilities and many have processing plants. Several of these are operated by individual buyers or co-operatives but most are depots of the South Australian Fishermen's Co-operative Limited (SAFCOL). In addition to collecting, processing and distributing fish from the outports, SAFCOL also operates the Adelaide fish market. This is an auction market which handles fish for both members and non-members.

### RESEARCH

The realisation that research is essential for effective fisheries management has promoted several research programs. Scallop, rock lobster, shark and abalone resources are being investigated by joint Commonwealth and State Government research groups consisting of the Division of Fisheries and Oceanography of the Commonwealth Scientific and Industrial Research Organization (CSIRO), the Fisheries Division of the Commonwealth Department of Primary Industry, and the Fisheries branches of New South Wales, Victoria, Tasmania and South Australia. In addition, the State Fisheries Division is conducting rock lobster, prawn, yabbie, blue crab, abalone, freshwater fish, whiting, snapper and oyster research programs and is measuring commercial fish species to determine frequency and distribution of various sizes throughout the commercial fish catch. A co-operative research program on the Australian salmon by the CSIRO Fisheries and Oceanography Division and the Western Australian Department of Fisheries and Wildlife commenced also in 1975. The State Fisheries Division is giving logistic support.

The decision in 1966 of the Commonwealth Government and the States to establish a joint Fisheries Research and Development Fund gave impetus to already expanding research programs. The Fishing Industry Research Trust Account was established under the *Fishing Industry Research Act 1969* which authorises an appropriation from Commonwealth Government revenue equal to amounts collected from the fishing industry by the State fisheries authorities and expended by them in 1976 for the development and management of State fisheries.

The State Government has financed exploratory deep-water trawling for gemfish in the South East and has purchased a twenty-three metre \$300 000 tuna pole boat for use as a fisheries research vessel in South Australian waters. This was renamed the 'Joseph Verco' and refitted to undertake studies of prawns, rock lobster, blue swimming crabs, scale fish and abalone.

### Conservation

The importance of protecting the marine and freshwater environment against pollution and other man-caused degradation is recognised in Section 56 of the Fisheries Act, 1971-1977 which enables the Governor to make regulations for regulating or prohibiting the discharge, placing or flow into waters of any matter (whether solid, liquid or gaseous) declared by the regulations to be poisonous or injurious to fish or their spawn thereof, and generally for protecting fish and the spawn thereof against destruction or injury by the discharge, placing or flow of any such matter into waters.

The State Department of Agriculture and Fisheries has pioneered, in Australia, the concept of marine national parks and has created a number of aquatic reserves to protect seal colonies, mangrove communities and areas of scientific and educational interest. Mangrove communities and allied samphire flats have received particular attention because of their recently recognised contribution to the productivity of the near-shore marine environment. All mangroves in South Australia are fully protected.

## 9.3 MANUFACTURING

### DEVELOPMENT

Early factory production was oriented to local needs: thus brick kilns, flour mills, tanneries, distilleries and a candle and soap works were among factories recorded in the 1840s. Also in operation were the smaller establishments of saddlers and coachbuilders, while various food and clothing industries were being established. Heavy industry can probably be traced to the production of agricultural machinery, beginning with the stripper of 1843 and including the stump-jump plough of 1876.

The discovery of copper in 1842 provided an impetus to certain industrial activities but the finding of gold in Victoria in 1851 encouraged many skilled persons to leave South Australia and the Colony's infant industries did not fully recover for two decades.

A highlight in the industrial progress of the State was the establishment at Port Pirie in 1889 of smelters for the processing of silver-lead ore from Broken Hill. This was primarily responsible for building up Port Pirie's population from about 900 at the 1881 Census to some 8 000 twenty years later, making the town at that time the largest country centre in South Australia.

Despite some industrial growth, South Australia in the 1930s was still basically a primary producing State, but since then a rapid growth in the relative contribution of secondary industry to total production has taken place. Development in the 1930s coincided with Government action which reduced company taxation and wharfage charges, and provided for a program of low-cost housing. The needs of war provided a further stimulus to the industrialisation process during the 1940s but it is since the 1939-45 War that the most impressive development has taken place.

Extensive development has occurred particularly in the consumer durable industries (e.g. motor vehicles, electrical and household appliances) and these industries now employ a significant proportion of the State's labour force. Major improvements also have been made in the State's energy sources with the development of the Torrens Island Power Station and the Port Stanvac Oil Refinery, and the introduction of natural gas as a fuel.

### ASSISTANCE TO INDUSTRY

#### Department of Economic Development

The Department of Economic Development is responsible for assisting in the formulation and implementation of Government policy on industrial, commercial and

general economic development. The functions of the Department are to assist existing industry to expand and diversify and to promote new industries compatible with the long-term economic growth of the State. It also provides industrial forecasting and co-ordinating services to Government and industry.

The Small Business Advisory Unit, which operates within the Department, provides a co-ordinated assistance service for small businesses by counselling those with financial and other management problems. It also organises and participates in training seminars for small business and directs firms to other sources of assistance as appropriate.

The Research and Technology Unit is responsible for all inquiries on industrial research and new product developments. The South Australian Agent-General and his trade officers in London actively seek joint venture and manufacture under licence proposals, mainly from western European countries, which are directed by the Unit to local companies who have indicated an interest in diversifying into the particular type of product concerned.

The Department, through the Publicity and Promotion Unit, is responsible for publicising the State as an industrial location, and for promoting local products and expertise within Australia and overseas through exhibitions and the media. In 1977, an 'Asia Export '76' Seminar was organised to advise local exporters of the services available to them in exporting to Asia. The Department also organises the South Australian exhibits at appropriate fairs and exhibitions.

#### **South Australian Industries Assistance Corporation**

The South Australian Industries Assistance Corporation, established under the Industries Development Act, 1941-1977, commenced operations in 1971-72.

The objectives of the Corporation are to promote and develop the State's industries through the provision of financial assistance. The Corporation offers loans of up to \$300 000 to eligible firms on specified terms and conditions. It can also participate in the equity structure of a firm and make grants where appropriate.

Before granting assistance to any person under the Act, the Corporation must satisfy the Treasurer:

- (1) that except in the case of assistance proposed to be granted in respect of an overseas industry, the assistance sought by the applicant is not obtainable by him in the ordinary course of business upon reasonable terms and conditions otherwise than from the Corporation;
- (2) that there is reasonable prospect that the industry in respect of which the assistance is given will be profitable; and
- (3) that it is in the public interest that the assistance be given.

#### **Other Assistance**

Other specific forms of financial assistance made available to industry by the State Government include payroll tax rebates, relocation grants, consultancy grants and assistance in the provision of services such as roads, water, electricity and transport. The South Australian Housing Trust makes serviced land available on industrial estates at cost, and may construct factories, either for sale or annual rental with option to purchase, throughout the State.

#### **MANUFACTURING INDUSTRY STATISTICS**

For the year ended June 1969, the Censuses of Manufacturing and Electricity and Gas Establishments were conducted for the first time on an integrated basis with Censuses of

Mining, Retail Trade and Selected Services, and Wholesale Trade. The electricity and gas industries, which were previously included in the Annual Factory Census, were the subject of separate censuses in 1968-69. As well as this change in the method of obtaining information on economic activities, different criteria have been used to define manufacturing and this has resulted in a significant fall in the number of establishments. In particular, service establishments such as dry cleaners and motor repair workshops are no longer classified as manufacturing. In addition to the changes in industry classification, information is now collected for all activities (including such things as installation work or wholesaling) undertaken by manufacturing establishments.

Thus, manufacturing industry statistics collected for the 1968-69 Census and subsequent censuses are not comparable with figures obtained from previous censuses. A more detailed explanation of these changes was included on pages 440-4 of the *South Australian Year Book 1972*.

Also, from 1974-75, detailed statistics have not been collected from single establishment enterprises employing fewer than four persons as their contribution to statistical aggregates other than the number of establishments is only marginal. In 1975-76 there were 847 establishments employing fewer than four persons.

### LEGISLATION

Industrial legislation is dealt with in Part 7 Labour. Other legislation is concerned with the location of factory premises and with the processes carried out therein.

Under the Local Government Act, 1934-1978, local government authorities may make by-laws restricting the erection of factory premises to certain sections of the area under their jurisdiction. The Manufacturing Industries Protection Act, 1937, provides for the proclamation of certain areas wherein proprietors and occupiers of factories are protected against civil action for noise and vibration problems. This Act, which takes precedence over zoning by-laws, currently applies to four relatively small zones. Regulations made under the Noxious Trade Act, 1943-1965, have defined certain processes as noxious trades for which a licence must be obtained. In addition an area between Wingfield and Dry Creek in the outer northern suburbs has been declared a noxious trade area with persons operating therein being protected from civil action.

Similarly the licensing of noisy trades may be required under a section of the Local Government Act. Excessive noise from industrial premises is regulated under the Noise Control Act, 1977. Protection against health hazards is provided under the Health Act, 1935-1976.

### CLASSIFICATION OF MANUFACTURING ESTABLISHMENTS

The Australian Standard Industrial Classification (ASIC) described in the publication *The Australian Standard Industrial Classification (Preliminary Edition)*, 1969 Volume 1, classifies the industries in the economy for statistical purposes, thus permitting the scope of the different economic censuses to be specified without gaps or overlapping between them.

The classes relevant to the manufacturing sector of the economy were listed on pages 492-6 of the *South Australian Year Book 1975*.

### STRUCTURE AND LOCATION OF SECONDARY INDUSTRY

Industrialisation since the 1939-45 War, to a considerable extent, has evolved around three major industrial groups. The motor vehicle, the electrical goods and the household appliance industries, together with their peripheral suppliers of components and services,

have accounted for much of the post-war expansion. These industries are located in, or near Adelaide. In fact the tendency for manufacturing industries, particularly those supplying consumer goods, to congregate near their market, has resulted in a heavy concentration of South Australian secondary industries in or near Adelaide.

In the next table some details are given for the Adelaide Statistical Division. The concentration of manufacturing industry in this Division can be seen by comparing the figures with those appearing in the subsequent two tables which summarise manufacturing operations for the whole State.

**Manufacturing Establishments: Summary of Operations by Industry Subdivision  
Adelaide Statistical Division, 1975-76<sup>(a)</sup>**

Industry Subdivision	Number of Establishments at 30 June	Average Persons Employed	Wages and Salaries	Turnover	Value Added
	Number		\$'000		
Food, beverages and tobacco	186	11 666	86 571	368 416	160 869
Textiles	34	2 195	15 937	64 705	23 226
Clothing and footwear	75	4 059	23 862	70 760	39 552
Wood, wood products and furniture	285	6 494	43 109	178 627	77 443
Paper and paper products, printing	155	5 802	44 033	136 707	78 044
Chemical, petroleum and coal products	51	2 513	23 572	106 948	45 092
Non-metallic mineral products	105	3 788	31 781	146 056	71 687
Basic metal products	43	4 111	33 017	135 072	57 238
Fabricated metal products	318	8 231	57 599	230 513	107 142
Transport equipment	122	21 705	171 907	637 277	242 609
Other machinery and equipment	284	18 293	133 902	433 276	209 099
Miscellaneous manufacturing	163	5 412	37 605	126 959	62 798
Total manufacturing	1 821	94 269	702 895	2 635 315	1 174 798

(a) Excludes single establishment enterprises employing fewer than four persons.

**Manufacturing Establishments: Summary of Manufacturing Operations by  
Statistical Division, 1975-76<sup>(a)</sup>**

Statistical Division	Number of Establishments at 30 June	Average Persons Employed	Wages and Salaries	Turnover	Value Added
	Number		\$'000		
Adelaide	1 821	94 269	702 895	2 635 315	1 174 798
Outer Adelaide	122	3 396	22 532	139 605	43 608
Yorke and Lower North	54	719	4 345	26 358	12 054
Murray Lands	93	2 839	19 856	117 985	45 291
South East	81	4 281	35 631	171 713	66 568
Eyre	30	645	4 272	20 216	7 845
Northern	86	9 956	82 053	349 409	135 522
Total State	2 287	116 105	871 583	3 460 603	1 485 686

(a) Excludes single establishment enterprises employing fewer than four persons.

Generally, industrial plants outside the Adelaide Statistical Division are located near raw materials sources of supply. At country centres there are either meat slaughtering, dairy produce or fish processing factories processing regional produce for local and export markets. There are exceptions to this, including the production of agricultural machinery at Mannum, woollen mills at Lobethal, clothing production at Mount Gambier and heavy engineering at Whyalla. Wallaroo and Port Lincoln, being central to their markets, are the sites of chemical fertiliser production.

The two most important undertakings beyond the vicinity of Adelaide are the iron and steel complex at Whyalla and the lead smelters at Port Pirie. These undertakings together with the power station at Port Augusta are sited for important mineral sources. Other factories are located near sources of primary products—these include the sawmills and paper pulp industries of the South East, the fruit processing plants of the Riverland, the wineries and distilleries of the Barossa Valley and the Riverland, and various dairy produce factories and fish processing plants.

In the following table details of manufacturing establishments for 1975-76 are classified according to industry class.

**Manufacturing Establishments: Summary of Operations by Industry Subdivision  
South Australia, 1975-76<sup>(a)</sup>**

Industry Subdivision	Number of Establishments at 30 June	Average Persons Employed	Wages and Salaries	Turnover	Value Added
	Number			\$'000	
Food, beverages and tobacco .....	384	17 914	128 909	637 055	252 930
Textiles .....	38	2 551	18 024	72 967	26 143
Clothing and footwear .....	78	4 279	25 108	72 358	40 915
Wood, wood products and furniture .....	337	8 940	61 804	258 281	113 023
Paper and paper products, printing .....	194	7 224	57 601	211 183	102 900
Chemical, petroleum and coal products .....	59	2 721	25 138	122 430	51 061
Non-metallic mineral products .....	147	4 213	35 404	163 094	78 496
Basic metal products .....	49	9 978	83 698	372 268	135 738
Fabricated metal products .....	367	8 846	61 547	249 245	115 791
Transport equipment .....	143	24 647	195 399	718 203	285 366
Other machinery and equipment .....	315	19 088	139 551	450 340	218 012
Miscellaneous manufacturing .....	176	5 704	39 400	133 180	65 311
<b>Total manufacturing .....</b>	<b>2 287</b>	<b>116 105</b>	<b>871 583</b>	<b>3 460 603</b>	<b>1 485 686</b>

(a) Excludes single establishment enterprises employing fewer than four persons.

Transport equipment accounted for 19 per cent of value added while fabricated metal products, machinery and equipment etc., accounted for 22 per cent. Employment in these industries was 21 per cent and 24 per cent respectively of the total manufacturing employment. Also of considerable importance to South Australia are the food and drink industries, particularly milk processing and winemaking.

The importance of manufacturing industry in South Australia relative to Australia as a whole can be gauged from the following comparison.

**Manufacturing Establishments: Summary of Operations, South Australia and Australia  
1975-76<sup>(a)</sup>**

Item	Unit	South Australia	Australia	South Australia as a percentage of Australia
Number of establishments at 30 June .....	number	2 287	27 523	Per cent
Average employment:				8.3
Males .....	number	90 272	888 676	10.2
Females .....	number	25 833	312 090	8.2
Wages and salaries .....	\$'000	871 583	9 475 072	9.2
Turnover .....	\$'000	3 460 603	39 504 496	8.8
Stocks, closing .....	\$'000	675 577	7 016 231	9.6
Value added .....	\$'000	1 485 686	16 946 090	8.8
Fixed capital expenditure .....	\$'000	140 513	1 475 849	9.5

(a) Excludes single establishment enterprises employing fewer than four persons.



In the following table manufacturing establishments are grouped according to the number of persons employed.

**Manufacturing Establishments: Selected Variables by Size of Establishment  
South Australia, 30 June 1976<sup>(a)</sup>**

Size of Establishment (average employment)	Number of Establishments	Persons Employed	Turnover	Value Added
				\$'000
Fewer than 10 .....	1 061	6 257	167 820	69 806
10 but fewer than 20 ..	427	6 051	168 268	71 304
20 but fewer than 50 ..	405	12 625	398 122	172 058
50 but fewer than 100	173	12 323	403 164	167 231
100 but fewer than 200	132	18 367	584 844	250 531
200 but fewer than 500	58	17 888	536 712	239 828
500 or more .....	31	42 097	1 180 771	505 470

(a) Excludes single establishment enterprises employing fewer than four persons.

Although there were 2 287 establishments operating at 30 June 1976 only 221 or 9.7 per cent had an employment in excess of 100 persons while 1 061 establishments, or 46 per cent of the total, employed less than 10 persons. The 31 largest establishments employed 42 097 persons or 36 per cent of the total.

Details of persons employed in manufacturing establishments for 1975-76 are given in the following tables. Females constituted 22.2 per cent of the total employment, but industries traditionally associated with female employment had a much higher component; textiles, clothing and footwear industries, in particular, employ a large number of females.

**Manufacturing Establishments: Average Number of Persons Employed, South Australia  
1975-76<sup>(a)</sup>**

Industry Subdivision	Males	Females	Total
Food, beverages and tobacco .....	12 606	5 308	17 914
Textiles .....	1 446	1 105	2 551
Clothing and footwear .....	1 157	3 122	4 279
Wood, wood products and furniture .....	7 674	1 266	8 940
Paper and paper products, printing .....	5 329	1 895	7 224
Chemical, petroleum and coal products .....	2 244	477	2 721
Non-metallic mineral products .....	3 849	364	4 213
Basic metal products .....	9 124	854	9 978
Fabricated metal products .....	6 983	1 863	8 846
Transport equipment .....	22 206	2 441	24 647
Other machinery and equipment .....	13 881	5 207	19 088
Miscellaneous manufacturing .....	3 773	1 931	5 704
<b>Total manufacturing .....</b>	<b>90 272</b>	<b>25 833</b>	<b>116 105</b>

(a) Excludes single establishment enterprises employing fewer than four persons.

**Manufacturing Establishments: Average Number of Persons Employed by Type of Employment, South Australia, 1975-76<sup>(a)</sup>**

Industry Subdivision	Working		Total
	Proprietors	Employees	
Food, beverages and tobacco .....	191	17 723	17 914
Textiles .....	17	2 534	2 551
Clothing and footwear .....	53	4 226	4 279
Wood, wood products and furniture .....	258	8 682	8 940
Paper and paper products, printing .....	108	7 116	7 224
Chemical, petroleum and coal products .....	6	2 715	2 721
Non-metallic mineral products .....	27	4 186	4 213
Basic metal products .....	15	9 963	9 978
Fabricated metal products .....	208	8 638	8 846
Transport equipment .....	57	24 590	24 647
Other machinery and equipment .....	106	18 982	19 088
Miscellaneous manufacturing .....	117	5 587	5 704
<b>Total manufacturing .....</b>	<b>1 163</b>	<b>114 942</b>	<b>116 105</b>

(a) Excludes single establishment enterprises employing fewer than four persons.

**WAGES AND SALARIES**

The following table shows wages and salaries associated with the usage of labour classified by industry subdivision. Wages and salaries paid to administrative, office, sales and distribution employees were 40 per cent of total wages paid, but in the food, beverages and tobacco; paper and paper products; and printing industries a much higher component was paid to these employees.

**Manufacturing Establishments: Wages and Salaries, South Australia, 1975-76<sup>(a)</sup>**

Industry Subdivision	Wages and Salaries Paid to		
	Administrative, Office, Sales and Distribution Employees	Production and All Other Workers	All Employees
		\$'000	
Food, beverages and tobacco .....	45 068	83 841	128 909
Textiles .....	5 431	12 593	18 024
Clothing and footwear .....	4 722	20 386	25 108
Wood, wood products and furniture .....	14 518	47 286	61 804
Paper and paper products, printing ..	20 889	36 713	57 601
Chemical, petroleum and coal products .....	10 095	15 043	25 138
Non-metallic mineral products .....	10 377	25 027	35 404
Basic metal products .....	25 849	57 849	83 698
Fabricated metal products .....	18 581	42 966	61 547
Transport equipment .....	48 082	147 317	195 399
Other machinery and equipment .....	36 865	102 685	139 551
Miscellaneous manufacturing .....	9 612	29 789	39 400
<b>Total manufacturing .....</b>	<b>250 088</b>	<b>621 495</b>	<b>871 583</b>

(a) Excludes single establishment enterprises employing fewer than four persons.

## SELECTED FACTORY PRODUCTS

The factory products listed in this section are not necessarily the principal items produced in this State. Where publication of details of an individual product would enable the output of a particular manufacturer to be determined, these figures are treated as confidential and are not separately available for publication. As a considerable number of products are produced in this State by industries containing one or two dominant firms, the list of publishable items is considerably restricted.

Selected Articles Produced: South Australia, 1974-75 and 1975-76<sup>(a)</sup>

Item	Units of Quantity	1974-75			1975-76		
		Production	Sales and Transfers		Production	Sales and Transfers	
		Quantity	Quantity	Value	Quantity	Quantity	Value
Aerated and carbonated waters	'000 l	92 490	92 543	\$'000 23 212	104 332	103 843	\$'000 29 973
Barrels, kegs, vats, drums and tanks	..	..	..	5 198	..	..	5 654
Blinds and awnings:							
Metal venetian	..	..	..	595	..	..	545
Outdoor, canvas	..	..	..	727	..	..	939
Outdoor metal	..	..	..	1 124	..	..	1 288
Brandy	'000 l al	1 495	2 586	4 829	1 485	1 758	3 805
Bread, total value	..	..	..	25 290	..	..	31 514
Bricks, clay	'000	121 211	120 076	9 181	128 137	127 612	12 434
Cakes, pastry, pies and puddings (not canned)	..	..	..	21 030	..	..	24 445
Cheese (excluding processed cheese)	'000 kg	18 061	19 360	n.a.	18 352	18 360	n.a.
Cheese, total value	..	..	..	18 028	..	..	19 055
Chickens	'000 kg	17 214	17 226	19 319	17 839	17 844	21 946
Flour, white	tonnes	103 392	104 106	13 470	101 222	107 288	16 215
Fluorescent light fittings	..	..	..	4 786	..	..	3 323
Fruit, crystallised and glace	'000 kg	962	937	1 357	726	682	1 168
Fruit juice	'000 l	6 642	6 687	2 947	8 411	9 765	6 573
Furniture:							
Sheet metal	..	..	..	6 946	..	..	7 795
Wooden	..	..	..	25 957	..	..	33 746
Gloves, work	doz. pairs	61 212	62 027	842	24 264	31 764	463
Ice	tonnes	13 713	13 703	353	18 305	18 298	516
Ice cream	'000 l	16 063	16 458	6 342	15 371	15 588	7 041
Machinery:							
Conveyors and appliances	..	..	..	11 600	..	..	8 011
Hoists, cranes lifting machinery	..	..	..	3 477	..	..	1 829
Mining and drilling	..	..	..	4 570	..	..	4 032
Pumping	..	..	..	3 131	..	..	3 421
Mattresses, innerspring	number	58 226	57 982	1 945	62 454	62 458	2 502
Newspapers and periodicals printed and published	..	..	..	9 893	..	..	13 309
Paints:							
Architectural and decorative:							
Primers and undercoats	'000 l	670	695	928	697	658	1 025
Finishing coats	'000 l	4 176	4 158	5 918	4 376	4 177	6 538
Industrial:							
Primers and undercoats	'000 l	1 155	1 145	1 275	..	..	..
Finishing coats	'000 l	3 161	3 161	4 262	..	..	..
Ready-mixed concrete	m <sup>3</sup>	1 062 259	1 119 474	28 578 991	1 240 567	1 239 937	38 619 098
Smallgoods	..	..	..	15 658	..	..	16 619
Steam, gas and water fittings	..	..	..	3 490	..	..	3 276
Steel, fabricated constructional	tonnes	104 671	105 003	32 176	60 592	53 451	23 156
Tallow, inedible	'000 kg	23 640	23 023	4 882	23 713	24 492	5 657
Tarpaulins	..	..	..	327	..	..	553
Tents, flies and marquees	..	..	..	1 029	..	..	739
Window frames, aluminium	..	..	..	7 725	..	..	11 490
Wine:							
Fortified	'000 l	38 490	38 008	22 643	38 693	45 000	31 865
Unfortified	'000 l	101 167	87 300	54 674	100 603	88 782	66 624

(a) Includes details for Northern Territory.

INDIVIDUAL INDUSTRY STUDY  
SOFTWOOD HOLDINGS LIMITED\*

Softwood Holdings is the largest privately owned timber products company in Australia with locations in South Australia, Victoria and New South Wales. Including its subsidiary companies the total number of persons employed is approximately 1 400, with assets, including value of forests, of \$22 736 639 in 1976.

Activities carried out by the group include the raising of radiata pine seedlings, planting and maintaining of forests, logging and milling of timber, production of finished timber products and particleboard, preservation of timber and the operation of hardware and general stores. Products produced by the Company's sawmills include building components, roof trusses, wall frames, laminated beams, laminated joinery, fence posts, components for fruit cases and wooden crates, preserved timber and particleboard.

Sales of their timber products are made throughout Australia with the main markets being South Australia and Victoria. Currently very little is exported although efforts will be made to gain export markets now a new particleboard, sawmill and preservation plant complex at Portland is operating. Main domestic buyers of products are from the home building, secondary and rural industries.

#### Nursery and Forestry Management

The Company has 17 400 hectares of forest plantings, 8 500 hectares in the South East and 8 900 hectares in south-western Victoria. These areas supply approximately 50 per cent of its timber requirements. The Company has a further 4 047 hectares of unplanted and cut over land for future plantings and aims to eventually have a total forest reserve area of twenty-eight to thirty thousand hectares.

The Company also has an active program of establishing forest areas in agreement with other private landholders. Softwood Holdings provide the special knowledge of silviculture and economic management, supply of seedlings at cost and the guarantee of a market for the wood harvested from plantations at Government royalty rates ruling at the time of cutting. These benefits are offered in exchange for Softwood Holdings having cutting rights over areas so developed.

In the Company's forests only one species, *Pinus radiata*, a softwood, is planted. *Pinus radiata* thrives on the marginal farmland areas within the South East and south-western Victoria. The conditions which *Pinus radiata* require for rapid growth are well drained sandy soils, an average rainfall of at least 750 millimetres which is well distributed through the year and the prevalence of sea breezes and cool temperate weather, especially in summer. All of these conditions are provided for in the Mount Gambier region.

#### Nursery Operations

Covering approximately nine hectares and propagating three million plants annually, this nursery provides all the plants required for the Company's forestry programs, whether they be on its own holdings or for forestry projects with private landholders. At any time four hectares are under pine seedlings, the remainder is lying fallow and being rejuvenated with compost and fertiliser.

The seed supply is collected from the most robust and best shaped trees in the Company's forests. The cones are placed in a large bin sited near the drying kilns of the sawmills to utilise the kiln's steam supply for separating seeds from the cones. During

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\*The assistance of Softwood Holdings in the preparation of this article is gratefully acknowledged. Data showing the operations of the Company has been supplied by the Company and was not collected under the *Census and Statistics Act 1905*.

spring the seed is mechanically planted and by the following winter, when the seedlings are approximately forty centimetres high, they are mechanically lifted and planted in the forestry sites. Seedlings may be watered during their cultivation in the nursery, but this depends on the moisture content of the soil during this period. The prime aim is to produce strong and resilient seedlings.

### *Forestry Operations*

Each forest site is assessed for growth potential and classified to one of seven production scales used for the Mount Gambier region. A Class I site provides the highest rate of growth and Class VII the lowest. Softwood Holdings sites average out as Class IV sites. It is essential that sites be cleared of other competing plant growth and if it is an area which is being replanted (called a second generation forest) it is usually given a fallow period of at least three years.

During winter, seedlings are planted in forest sites either by hand or mechanically. Plants are disturbed as little as possible to avoid the possibility of setbacks in the early stages of growth. Seedlings are planted at 1 700-2 200 per hectare depending on the assessment of the growth rate class for the site.

Planting occurs in winter because this allows the young trees to benefit from high rainfall through to early summer. It is in the first year of growth and especially during summer that *Pinus radiata* is prone to setback from heat stress and lack of moisture. New plantings rely entirely on natural precipitation and the cooler wetter summers of the Mount Gambier region reduce the risk of prolonged stress periods. If trees are retarded in the first year of growth then this can reduce yield in future years. Rabbits can also cause much damage to new plantings and there is a full-time eradication program in Company forests.

Currently Softwood Holdings plant 600 hectares per year.

### *Fire Protection*

Fire is certain death to *Pinus radiata* because once exposed to it the trees cannot recover with new growth as Australian natives can. It is essential that the threat of fire to such a valuable asset be kept to a minimum. Insurance cover for forests is only available for the first thirteen years of growth or when the first thinning is done; for the remaining twenty-two years to final felling no cover can be provided.

The first line for observation and fighting of fires is formed by the fallers, the persons who fell trees. Each faller is equipped with a fire fighting kit, and they also have radio access to forestry headquarters.

On days of extreme heat, where the potential for fire is high, a complete ban is placed on the forest even if it means the processing units being starved of inputs. So that fires can be contained and fought, there are frequent large fire breaks and access tracks and approximately thirteen per cent of the forest area is used for these. The Company's fire fighting equipment consists of eight major fire trucks, four small Land Rovers, one 14 000 litre tanker and one 4 500 litre rubber pillow tank.

### *Log Procurement*

The quantity of log production and its suitability for the different processes depends primarily on the age of the log when felled. Timber is obtained from both the thinnings and clear fell operations.

The initial close planting allows for upright trunk development as there is little room for lateral growth. This also enhances the future quality of log output as it reduces the development of knots in the timber. However as the forest matures, thinning out is

necessary to allow for further development of the remaining trees. Softwood Holdings policy is to have a thirty-five year rotation plan during which there are four thinnings and one final clear fell.

The first felling occurs after thirteen years growth. Because the trees are very close, there is very little room for movement and so complete rows back through the forest are removed. Approximately fifty per cent of the trees are removed in this felling and fifty per cent of the remaining trees are removed in the second felling. Whether it be the first or later fellings, the procurement personnel assess and mark which rows or individual trees are to be removed.

The current annual output from the Company's forests is 167 700 cubic metres—52 000 cubic metres for pulp and posts and 115 700 cubic metres of sawlog. Logs for pulpwood are supplied under contract to another firm for tissue paper production. With progressive fellings the size of the logs increases, hence the final use for the log alters.

The yield and product usage from the cutting program is shown in the following table.

**Yield and Product Usage**

Period of Growth (Years)	Operation	Yield m <sup>3</sup> /ha	Log Usage		
			Pulpwood	Poles and Posts for Treatment	Sawlog
13	Thinning 1 .....	99	80-85	Per cent 15-20	—
19	Thinning 2 .....	64	40	20	40
25	Thinning 3 .....	88	Remaining 20 per cent for Pulp or Treatment		80
35	Thinning 4 .....	117	—	0-10	90-100
	Clear felling .....	314	—	0-10	90-100
	Total yield from a hectare .....	682			

The output from the Company's forests provides approximately fifty per cent of total log requirement, the remaining log procurement comes from various areas of South Australian and Victorian State Forests and private forests for which Softwood Holdings hold cutting rights. The total log procurement by the Company is 400 000 cubic metres including the output for pulpwood.

Felling is done by persons called fallers and although employees of the firm, they are remunerated according to their output. Every faller has to undergo a three week training course covering the use of the chain saw, and the basics of felling a tree and preparing it for hauling. In the first year the faller works on small trees only; a faller has to have a minimum of three years experience and be suitably licenced before operating in areas of the largest trees. They are also required to wear safety equipment comprising a helmet, ear plugs, protective visor for the eyes, and heavy duty boots.

A tree is felled by first cutting a horizontal 'V' cut called a scarf, into the trunk; this determines the direction of fall. After the scarf is cut the trunk is cut right through and the tree is felled. All of the branches are then lopped off and the trunk is cut into sections ranging from 2.5 metres to 6.5 metres depending on its final use. The cut sections are transported to assembly points by four-wheel drive loaders called forwarders and the lopped material is broken down and worked back into the soil by the constant traffic of the forwarders. Trucks haul the logs from these assembly points to the various processing locations. All of the hauling, including the loading by the forwarders, is done by contractors.

### *Log Suitability*

The desirable log characteristics vary according to its intended use. Logs used in sawmills for products where appearance qualities are important must have a small taper from end to end; small knots which are tight and green and, for high quality timber, low in number; and a diameter within the range 150-350 mm, preferably around 250 mm. These logs are normally obtained from second or third thinnings.

Logs used for products where structural qualities are important must have a small taper from end to end; reasonably even ring width in the cross-section of the log; and a diameter within the range 200-250 mm, preferably around 330 mm. Knots can be larger and even dead or loose knots are acceptable. These logs are normally obtained from fourth thinnings and clear felling.

Logs used for poles must be straight and have a diameter less than 150 mm. These logs are usually obtained from first or second thinnings.

### **Sawmill and Preservation Plant Operations**

Softwood Holdings Ltd and its associated companies have in excess of forty sawmills and preservation plants throughout South Australia, Victoria and New South Wales. Although they may vary in their type of operations and output there are nevertheless basic similarities in the timber flow through the production processes of each establishment.

#### *Sawmill Processes*

The logs are debarked at the mill by automatic debarkers with revolving knives which literally tear the bark from the logs. They can handle logs up to sixty-six centimetre diameter. All bark removed is sold for use in gardens and parks, a newly-developed market. Previously the bark was used as fuel by the sawmills. After debarking, the logs are automatically sorted by diameter size and the logs suitable for use as fence posts and children's play equipment go straight to the preservation plants. Logs for sawing are conveyed to the mill for the initial cut. The logs are cut to give the largest possible longitudinal square sections which are then cut into boards of differing thicknesses depending on the end product. The off-cuts are used by the particleboard plant.

The sawn boards are graded and stacked in the open, with spacers between boards, to allow air flow for uniform air seasoning. Once the air drying is completed, the timber is placed in kilns where heated air is blown through the stacks to dry out any excess moisture present in the wood. The stacks are then put in a reconditioner where the moisture content of the boards is stabilised at about twenty-five per cent. Too little moisture causes cracking and warping.

Finally some boards are moulded (sawn to particular shapes) and docked (cut to required length). A variety of products including flooring and skirting boards are produced. Once the finished product is ready it is packed for distribution to customers and all off-cuts from the final sawing stage are sent to the particleboard plant.

#### *Preservation Plants*

Preservation plants are normally located on the same site as sawmills so that logs that are suitable for preservation in the round are transferred from the debarking station. A small amount of sapwood is also removed at debarking to facilitate handling and enhance appearance. The prepared logs are then stacked in the yard for air seasoning. The air seasoned logs and dressed timber of outdoor use are placed in a sealed cylinder which is normally 14.6 metres long and 2.4 metres in diameter with a capacity to treat 4 500 posts per day. Under vacuum pressure, water borne preservative salts are added and impregnated into the timber to extend its service life by making it resistant to insect and

fungicide attack, this also gives the timber its characteristic green colouring. Some preservatives used give the timber a degree of fire resistancy. After treatment the timber is air dried for several months and is then dispatched to customers. The logs preserved in round are used mainly for fence posts, transmission posts and outdoor furniture while dressed timber is used in weather and fencing boards.

### **Sawmill Locations**

The following is a summary of the main sawmill locations and their individual features.

#### *Lakeside Sawmill and Preservation Plant*

This mill, which began operating in 1950, is located on the outskirts of Mount Gambier on the same site as the particleboard plant. At the moment it is the largest sawmill complex in the Softwood Holdings group. The sawmill is presently run on a two-shift operation with a total employment of approximately 190 persons.

Some of the board that is produced here is sold, while the rest is reused to manufacture dressed timber products for use in building and the manufacture of furniture. There are two planer mills which produce all kinds of timber mouldings and joinery components. A finger jointing machine is also used to improve the appearance of lower grade floorboards which may be used in exposed positions. Roof trusses and wall frame units are also produced.

The Lakeside site, with the mill, the preservation plant, particleboard plant and the nursery and marketing divisions forms the centre of the Company's operations.

#### *Case Mill*

This is a small specialised mill established in 1946 on the outskirts of Mount Gambier. At present it employs twelve persons on a one-shift basis. The mill has the capacity to produce assembled packaging cases but usually only the components are made and sold to customers for assembly. The main products are used by the fruit growing and processing industries.

#### *Sturt Street Mill*

This mill is situated in the middle of Mount Gambier on the site where Softwood Holdings began operations in 1940. Thirty-three persons are now employed at the mill operating on one-shift and the main products are laminated beams and mouldings.

The laminated beams are made by glueing together many lengths of pre-cut timber from the Lakeside Mill to make one long layered beam which can be curved if desired. Each beam is tested for strength and must meet the rigorous requirements of the Australian Standards Association.

At this site there is also a specially designed, smaller, air operated jig which produces laminated joinery stocks for use in window and door frames. Other products include dressed timber produced by a moulder for the manufacture of furniture, shower components and frameworks for cupboards.

#### *Kalangadoo Mill*

This mill was built in 1955 by a company which Softwood Holdings subsequently acquired. The site covers four and a half hectares and consists of a sawmill, debarking station, planing mill and several kilns. Currently the mill employs approximately sixty persons working on a two-shift basis.

The Kalangadoo Mill is unique in the Softwood Holdings group because it has the flexibility to accommodate logs of various diameters with no loss of continuity of production.



The offcuts from the sawn logs are resawn to extract usable timber if they are large enough and then all discarded timber is sent to the particleboard division. Boards are cut from the sawn logs and about forty-five per cent of them are transferred to the Lakeside Mill for further processing. The remainder are air seasoned and then put through the planer which produces components for case timber, mouldings and constructional timber. There are also kilns for drying timber and a preservation plant for fence posts and dressed timber products.

#### *Dartmoor Mill*

This mill began operating in 1939 as a case component producer and has gradually expanded to produce a full range of timber products. Today it occupies a twenty-three hectare site and consists of a sawmill, debarking station, chipper, a number of bandsaws, dockers, planers and several kilns. The mill employs approximately 110 persons in a two-shift operation.

The main products of the mill have been case components, floor linings and mouldings but the re-equipping of the mill has enabled it to meet the large and growing demand for construction timber. The thicker boards are used for structural fittings where appearance of the timber is not important, and the thinner boards are cut from timber with high grade appearance for use in the furniture and construction industries where the timber will be on view.

At the Dartmoor Mill there are two planing mills where dressed timber products such as flooring, lining, cladding and shelving components are produced. There are also four kilns and one reconditioner which are all controlled automatically. A preservation plant is used to process round logs and dressed timber.

#### **Particleboard Operations**

Particleboard has its main applications in non-structural type of joinery and building work such as furniture and flooring. It is a clean white board, very convenient to use and readily workable with a variety of thicknesses and finishes available.

Particleboard is produced from the residues of sawmilling—the shavings, timber dockings and slabs. The integration of a particleboard plant into a sawmill complex is therefore extremely important. In a sawmill without a particleboard plant only forty per cent of extracted log is saleable and the residues of sixty per cent create a disposal and pollution problem.

A fully integrated sawmill increases log usage to ninety-seven per cent and apart from providing more employment it also eliminates the disposal and pollution problems.

#### *Development of Operations*

The Company's first plant commenced operations in 1956 and produced an extruded board known as 'Okalboard' which was the first particleboard to be produced in Australia. This plant had a daily output capacity of eight tonnes but with the introduction of the more modern 'Radex' plants it ceased operations in 1975. In 1967 a new plant 'Radex 1' which produced a platen type of particleboard was commissioned. 'Radex 1' employs a three mattress daylight press producing a 3 600 × 1 800 mm board and has a daily capacity of 40 tonnes. Because of the expanding demand for particleboard a third plant 'Radex 2' was constructed in 1973. 'Radex 2' employs a faster loading daylight press with four larger mattresses producing a 5 400 × 2 400 mm board and has a daily output of 120 tonnes.

Particleboard production had now become a key integral part of mill operations using all the residues from Kalangadoo, Case, Dartmoor and Lakeside mills and employing 220 people. All of the plants described above are located at the Lakeside site.

Market opportunities for particleboard continued to expand and in 1974 construction plans for a large new plant at Portland were announced. This plant, which commenced production in January 1978, is the most modern in Australia. It is the first plant that utilises sawdust residue along with the other wood inputs for the production of particleboard. It produces a 7 200 × 1 800 mm three layered, flat pressed particleboard from a seven daylight press which has a production capacity of 250 tonnes per day. At the moment there are approximately 150 persons employed, but this will increase to 300 by 1982.

### *Processes of Manufacture*

Although the layout and scale of operations of the three production lines differ, the sequence and type of processes are similar. To give an appraisal of how particleboard is manufactured the production flow of 'Radex 2' is explained below.

#### (1) Raw Materials

All raw material is *Pinus radiata* and consists of:

- (a) wood chips produced at the sawmills from the offcuts. They are cut down into chip particles at the sawmills or at the particleboard plant by machines called 'chippers';
- (b) shavings from planer mills where sawn timber has been dressed;
- (c) residues from the moulding operations of dressed timber such as the manufacture of floorboards;
- (d) slab or offcuts from the case mill operations; and
- (e) roundwood from the Company's forests, particleboard waste from the finishing line and in the case of Portland, sawdust.

Raw materials are also gained from other operations in the region to supplement those produced by Softwood Holdings. All of these inputs are received either by blowers from on-site activities or trucked from distant locations. There is continuous movement and processing of materials received so that space required for storage is kept to a minimum.

The flow of raw materials is segregated into two groups, that suitable for surface material and that suitable for core material and these undergo separate preparations. Any material which is discoloured, such as green residues from the preservation plant, are suitable for core material only. Particleboard has a clean smooth white finish and only material which will provide this finish is used for surface material.

#### (2) Production Line Processes

Surface material is flaked, dried to a maximum of three per cent moisture then wind sifted to an acceptable surface finish size. Core material is also flaked, dried and size screened, but it is larger and coarser in finish than surface material. Both are then blended with glue (urea formaldehyde) and additives wax and ammonia. Wax provides a moisture resistance quality and ammonia is added to retard the hardener and curing processes.

This blend is loaded into upright containers which spread a bottom layer of surface material, then a middle layer of core material and a top layer of surface material into belt trays which feed horizontally back and forth under the spreaders. These mattresses vary in thickness from 25 to 125 mm depending on final board thickness required but output is programmed so that production runs concentrate on a set thickness of board before changing to another thickness. The belt trays unload the mattresses into the multi-daylight press.

Closing of the hydraulic platens is simultaneous and fast; it takes about eight to ten seconds to close on a mattress of 75 mm which produces a 20 mm thick board. Fast closing enables the same treatment in heat and pressure to all panels in the press.

The platens which press the mattresses are steam heated to 150 degrees Celsius. Steam is generated on-site and is used as the heating agent because it can be effectively and inexpensively controlled. The heat and pressure welds the glue blended mixture into a rigid board. Each pressing cycle from loading into the press, pressing and unloading for a 20 mm board is about six minutes.

As each cycle is unloaded the boards are given a quick quality check by weighing to ascertain whether it is of the required thickness and if it has been pressed properly to give the required finish. There are further quality control tests on strength and consistency of mix carried out in a separate laboratory on samples from each batch.

Each board straight from the press is fed into a six metre revolving 'Star cooler'. After the board fed in one side has completed half a rotation or 27 minutes in the cooler, it is automatically ejected from the other side and stacked into 20 tonne packs on a line roll cage for conveyance to the sander line. This conveying system is large in area and because it takes approximately 24 hours for packs to reach the finishing line they are cured without leaving the production line. On the finishing line boards are sanded and cut.

The sanding operation is done by two under and over belt sanders which enables both sides to be sanded simultaneously. The sanders are in line, with the first sander employing a coarser paper to remove any rough imperfections and the second sander has a fine paper providing a fine sanded finish.

Immediately after both faces of the boards are sanded they are inspected by a turnover device, graded and automatically allocated to storage bays. They are now ready to enter the final stage of the finishing line where the boards are sawn into various sizes. The saw is capable of trimming all four edges, of making one longitudinal and up to three simultaneous crosscuts in each board.

Stacking after sawing is automatic and the assembled packs are then transported by forklift truck to the dispatch area, or to the laminated melamine line. In this line, board is covered with one of four coloured textured plastic papers and under heat and pressure, melamine resin flows and binds the paper to the board. There is no separate glue line and the finish provided is of the high standard required for the furniture industry.

#### OTHER INDIVIDUAL INDUSTRIES

In this section details are given of major South Australian secondary industries. However, statistics relating to a number of important industries are not published in order to maintain confidentiality of details for individual businesses.

#### Meat and Abattoir By-products

Most of the abattoirs in South Australia are located in country areas but the two largest establishments are within the Adelaide Statistical Division. Details of country butchers who slaughter livestock mainly for sale in their own retail shops are not included in the following table.

Meat and Abattoir By-products, South Australia, 1975-76<sup>(a)</sup>

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number				\$'000	
Adelaide .....	10	2 454	19 478	26 282	57 472	32 820
Other .....	13	1 072	7 740	19 684	32 048	12 989
Total .....	23	3 526	27 218	45 966	89 519	45 809

(a) Excludes single establishment enterprises employing fewer than four persons.

### Wine and Brandy

Winemaking has been established in this State for a long period. The industry employs both modern technology and traditional skills. Although relatively small by world standards the wine industry is important to Australia and particularly to this State. In 1975-76, South Australia accounted for 60 per cent of Australia's total beverage wine production and 92 per cent of brandy. The size of the wineries in South Australia vary from small family-concerns to businesses employing about 200 persons.

A limited number of wineries still operate in the Adelaide metropolitan area but the three major areas in this State are the Barossa Valley, the Riverland irrigation areas and the Southern Vales area centred around Reynella and McLaren Vale. Considerable development has also taken place in the South East, particularly at Coonawarra.

In 1975-76, 27 wineries employing 48.9 per cent of the total employment of the industry in South Australia operated in the Barossa Valley, 14 wineries with 16.9 per cent of employment were located in the Riverland irrigation areas and 19 locations employing 18.6 per cent were in the Southern Vales area. The other locations are mainly in the metropolitan area, Clare and the South East of South Australia.

#### Wine and Brandy, South Australia, 1975-76<sup>(a)</sup>

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
		Number			\$'000	
Adelaide .....	24	647	4 450	14 946	23 301	11 201
Other .....	56	2 016	13 491	67 772	95 619	38 557
Total .....	80	2 663	17 940	82 718	118 919	49 758

(a) Excludes single establishment enterprises employing fewer than four persons.

### Printing and Publishing

There are two large establishments producing newspapers in Adelaide. Newspaper printing offices are also located in most large towns, and a number of these produce newspapers for more than one locality. Particulars of general printing establishments, including the activities of the Government Printing Division of the Department of Services and Supply, are also incorporated in the following table.

#### Printing and Publishing, South Australia, 1975-76<sup>(a)</sup>

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
		Number			\$'000	
Adelaide .....	133	4 684	35 831	34 775	96 399	61 431
Other .....	35	362	2 180	1 422	5 300	3 898
Total .....	168	5 046	38 011	36 198	101 699	65 329

(a) Excludes single establishment enterprises employing fewer than four persons.

### Cement and Concrete Products

One firm produces cement at two locations in South Australia, one at Birkenhead and the other at Angaston. The Angaston cement plant, based on the limestone deposits, is an example of a manufacturing location being established near the source of the raw material. In 1975-76, 49 plants produced ready-mixed concrete, of which 27 were in the Adelaide Statistical Division and 22 were in country areas. Two firms produce concrete pipes at five separate locations of which two are in the country.

Cement and Concrete Products, South Australia, 1975-76<sup>(a)</sup>

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
		Number			\$'000	
Adelaide.....	58	1 744	14 407	49 907	82 662	34 636
Other .....	32	313	2 954	10 422	15 060	5 859
Total .....	90	2 057	17 360	60 329	97 722	40 495

(a) Excludes single establishment enterprises employing fewer than four persons.

## Basic Iron and Steel

In 1941 a blast furnace was installed at Whyalla to utilise the iron ore from the Middleback Ranges. The ore is transported by rail a distance of 55 kilometres to Whyalla. Before 1965 Whyalla was the major source of Australia's foundry iron but this changed in 1965 when the Basic Oxygen Steelmaking (BOS) plant began producing steel. The *BHP News* of February 1975 reported that the two vessels at the BOS in the first decade of operation produced over 8.7 million tonnes of steel.

There are a number of large pipe and tube making firms located in and near Adelaide. These firms accounted for slightly less than 13 per cent of the Australian output of ferrous pipes, tubes and fittings. Details for these plants, together with details for establishments making basic forgings and castings of iron and steel, are included in the following table.

Basic Iron and Steel, South Australia, 1975-76<sup>(a)</sup>

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
		Number			\$'000	
Adelaide.....	23	x	x	x	x	x
Other .....	5	x	x	x	x	x
Total .....	28	7 767	64 317	180 910	252 772	85 786

(a) Excludes single establishment enterprises employing fewer than four persons.

## Transport Equipment (Other than Motor Vehicles)

In 1975-76 the transport equipment (other than motor vehicles) industries accounted for 5 per cent of the employment in manufacturing in South Australia. Motor vehicles and parts and other transport equipment together accounted for 21 per cent of total South Australian manufacturing employment.

Transport Equipment (Other than Motor Vehicles), South Australia, 1975-76<sup>(a)</sup>

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
		Number			\$'000	
Adelaide.....	38	2 460	18 610	19 415	41 932	22 433
Other .....	17	2 912	23 386	38 141	80 532	42 549
Total .....	55	5 372	41 996	57 557	122 464	64 982

(a) Excludes single establishment enterprises employing fewer than four persons.

**Appliances and Electrical Equipment**

For many years South Australia has been one of the leading States in the production of the larger household appliances, including refrigerators, washing machines and stoves. These items constitute a significant part of the total activity shown in the next table. Also represented are manufacturers of radios, television sets and components, waterheating systems, batteries and other electrical machinery.

This group of industries is the second most important in the State and in 1975-76 employed nearly 11 per cent of total manufacturing employment in South Australia.

**Appliances and Electrical Equipment, South Australia, 1975-76<sup>(a)</sup>**

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
		Number			\$'000	
Adelaide.....	105	12 428	90 925	164 228	304 381	143 318
Other .....	6	149	912	980	2 453	1 544
Total .....	111	12 577	91 837	165 208	306 834	144 862

(a) Excludes single establishment enterprises employing fewer than four persons.

## **PART 10**

# **COMMERCE**

## **10.1 INTERNAL TRADE**

Extensive statistics of retail trade have been collected and published over many years but the first full census of wholesale trade was conducted as part of the integrated Economic Censuses of 1968-69 which was discussed in detail on pages 446-57 of the *South Australian Year Book* 1971.

### **RETAIL TRADE**

A Census of Retail Establishments and Selected Service Establishments for the year ended 30 June 1974 was conducted primarily to provide the necessary data to update the sample for the quarterly survey of retail sales. For this reason, bread and milk vendors, footwear repairers, motion picture theatres, and laundries and dry cleaners were not included and questions on purchases, stocks, capital expenditure, operating expenses, etc., were omitted from the census.

The 1973-74 Census thus included all establishments classified to retail trade in Subdivision 48 of the Australian Standard Industrial Classification (ASIC) with the exception of bread and milk vendors, footwear repairers and door to door salesmen. In addition the census included service establishments classified as cafes and restaurants; licensed hotels, motels and wine saloons; licensed clubs and hairdressers and beauty salons.

The definition of retail trade adopted in the 1973-74 Retail Census was the same as that used in previous censuses *i.e.* the sale of new and used goods to the final consumer for household and personal purposes. To conform with this definition sales of building

materials, timber, commercial refrigerators and freezers, agricultural machinery and implements, agricultural tractors, construction and earthmoving equipment were not treated as retail sales. For the same reason and because most retailers would have difficulty in providing separate details of the value of retail and wholesale sales of builders hardware and building supplies, grain, feed and fertilisers and agricultural supplies, business machines and equipment, these commodity items also, as in previous censuses, were not treated as retail sales.

For the 1973-74 Census, establishments which operated for part of the census year were included in the census only if they had operated for at least two months and were still operating at the end of June.

### Retail and Selected Service Establishments: Summary of Operations by Industry Class South Australia, 1973-74

Industry Class	Number of Establishments at End of June	Employment at End of June		Wages and Salaries	Retail Sales	Turnover (a)
		Males	Females			
		Number			\$'000	
<b>Retail establishments:</b>						
Department, variety and general stores:						
Department stores	24	3 440	7 872	35 684	223 400	233 558
Variety stores and general stores	197	591	1 667	5 661	42 436	44 614
Food stores:						
Supermarkets	99	2 073	3 265	11 459	153 784	154 536
Grocers and tobacconists	1 639	1 977	4 210	7 705	135 157	136 889
Butchers	812	2 084	430	7 674	65 541	66 083
Fruit and vegetable stores	340	435	918	1 606	19 058	19 345
Liquor stores	61	119	70	498	7 480	7 758
Confectionery and soft drink stores	628	638	1 746	2 480	30 634	31 168
Fish, chip and hamburger shops	460	766	1 096	2 085	22 446	22 880
Bread and cake shops	224	257	849	1 860	11 155	11 547
Clothing, fabric and furniture stores:						
Furniture and floor covering stores	215	1 269	520	6 782	60 520	61 466
Fabrics and household textile stores	221	187	661	1 690	14 039	14 184
Men's and boys' wear stores	214	658	426	2 912	22 832	23 211
Women's, girls' and infants' wear stores	532	263	1 783	4 224	35 875	36 001
Footwear stores	215	274	676	2 147	18 119	18 281
Household appliance and hardware stores:						
Household appliance stores	264	1 395	665	8 579	67 330	80 886
Household electrical appliance repairers	126	356	112	1 242	465	3 898
China, glassware and domestic hardware stores	174	268	324	1 094	8 542	10 208
Watchmakers and jewellers	186	310	384	1 674	10 580	12 224
Musical instrument and record stores	73	129	133	637	6 630	6 764
Motor vehicle dealers, petrol and tyre retailers:						
New motor vehicle dealers and motor vehicle repairers, n.e.c.	844	6 703	1 614	32 289	247 224	335 875
Used motor vehicle and parts dealers	267	1 070	271	5 483	64 666	73 960
Tyre and battery retailers and tyre retreaders	165	1 158	181	6 003	34 814	42 786
Service stations	859	3 455	1 370	8 651	87 977	100 553
Smash repair workshops	368	1 599	220	5 576	291	18 006
Motor cycle dealers	63	318	90	1 489	12 098	19 730
Boat and caravan dealers	82	260	99	1 119	13 593	14 672



**Retail and Selected Service Establishments: Summary of Operations by Industry Class  
South Australia, 1973-74 (continued)**

Industry Class	Number of Establishments at End of June	Employment at End of June		Wages and Salaries	Retail Sales	Turnover (a)
		Males	Females			
		Number			\$'000	
Other retailers:						
Pharmacies .....	528	860	1 723	7 062	47 796	48 116
Photographic equipment stores	26	55	31	240	2 650	2 704
Sporting goods, bicycle and toy shops	185	351	224	1 084	11 672	12 854
Newsagents, stationers and booksellers	397	615	876	2 281	26 831	27 199
Antique and secondhand goods dealers	332	412	297	1 190	9 274	9 425
Nurserymen and florists	149	164	378	980	5 499	5 668
Retailers, n.e.c.	221	259	321	997	5 636	6 710
<b>Total retail establishments</b>	<b>11 190</b>	<b>34 768</b>	<b>35 502</b>	<b>182 137</b>	<b>1 526 044</b>	<b>1 713 759</b>
<b>Selected service establishments:</b>						
Restaurants and licensed hotels;						
Cafes and restaurants	246	905	1 968	5 977	5 682	20 297
Licensed hotels, motels and wine saloons	635	5 043	6 210	33 066	112 252	149 343
Licensed clubs;						
Licensed bowling clubs	17	47	11	158	513	665
Licensed golf clubs	23	204	107	935	891	2 348
Licensed clubs, n.e.c.	121	598	532	2 563	8 117	10 473
Hairdressing and beauty salons;						
Men's hairdressing	177	237	40	237	353	1 480
Women's hairdressing and beauty salons	771	273	2 395	4 177	554	10 307
<b>Total selected service establishments</b>	<b>1 990</b>	<b>7 307</b>	<b>11 263</b>	<b>47 113</b>	<b>128 362</b>	<b>194 913</b>
<b>Total retail and selected service establishments</b>	<b>13 180</b>	<b>42 075</b>	<b>46 765</b>	<b>229 250</b>	<b>1 654 406</b>	<b>1 908 672</b>

(a) Sales of goods (retail and wholesale) and all other operating revenue.

A comparison of retail trading in South Australia and in Australia during 1973-74 is shown in the following table. In this and in the earlier table showing employment and wages, employment figures include working proprietors but wages exclude the drawings of working proprietors.

**Retail and Selected Service Establishments: South Australia and Australia, 1973-74**

Particulars	South Australia	Australia
		Number
Establishments operating at 30 June 1974	13 180	151 120
Persons employed at 30 June 1974	88 840	984 964
		\$ million
Wages and salaries	229.3	2 739.0
Retail sales	1 654.4	19 070.7
Wholesale sales	84.2	1 403.2
Other operating revenue	170.1	2 259.8
Turnover	1 908.7	22 733.7

The value of sales of the commodity items collected in the 1973-74 Census are shown in the following table. Many establishments reported takings in more than one commodity

item so that the number of establishments showing sales for individual items will exceed the total number of retail and selected service establishments.

**Retail and Selected Service Establishments: Sales by Commodity Group, South Australia  
1973-74**

Commodity Item	Number of Establishments	Retail Sales of Goods		
		Total	Sales Per Establishment	Sales Per Head of Population
		\$'000	\$	\$
Groceries, other food items, etc.:				
Groceries .....	2 802	192 949	68 860	159.4
Fresh meat .....	1 163	80 819	69 490	66.7
Confectionery, ice cream, soft drinks, etc. ....	3 516	50 154	14 260	41.4
Other food .....	3 006	79 966	26 600	66.0
Beer, wine and spirits, cigarettes, etc.:				
Beer, wine and spirits .....	1 033	127 317	123 250	105.2
Cigarettes and other tobacco products ...	4 827	50 218	10 400	41.5
Fabrics, clothing and footwear:				
Clothing and drapery .....	1 733	200 292	115 580	165.4
Footwear .....	763	33 575	44 000	27.7
Hardware:				
Domestic hardware, china, glassware, jewellery, watches and clocks (including garden equipment) .....	1 453	48 084	33 090	39.7
Household appliances:				
Radios, radiograms, tape recorders, television sets and accessories, musical instruments, records, sheet music, etc. ....	580	39 072	67 370	32.3
Domestic refrigerators and freezers, washing machines, stoves, household heating appliances and other household appliances (including bottled liquid petroleum gas) .....	543	56 384	103 840	46.6
Furniture and floor coverings:				
Furniture, mattresses, blinds, etc. (including installation and repairs) ....	364	45 609	125 300	37.7
Floor coverings, carpets, lino, etc. including laying of floor coverings ....	354	32 754	92 530	27.1
Motor vehicles, petrol, boats, caravans, etc.:				
New motor vehicles, new and used motor cycles, boats and caravans .....	486	193 634	398 424	159.9
Used motor vehicles .....	572	113 443	198 327	93.7
New and used parts and accessories, petrol, oils, tyres, batteries, etc. ....	1 970	150 857	76 577	124.6
Miscellaneous:				
Cosmetics, perfumes, toilet preparations	1 774	24 129	13 600	19.9
Prescription and patent medicines and therapeutic appliances .....	836	35 387	42 330	29.2
Books, stationery, newspapers, etc. ....	1 735	37 737	21 750	31.2
Goods not included above .....	2 191	62 022	28 310	51.2
<b>Total retail sales .....</b>		<b>1 654 406</b>		<b>1 366.4</b>

**Surveys of Retail Establishments**

During periods between censuses, estimates of the value of retail sales are calculated from returns received from a sample of retail establishments covering businesses which account for approximately 45 per cent of all retail sales in Australia.

The following table shows the value of retail sales of goods in South Australia in broad commodity groups for the 1973-74 Census, and retail survey estimates for the years 1974-75 to 1976-77. Retail sales of motor vehicles and parts, petrol, etc., and of delivered milk and bread are excluded.

## Value of Retail Sales: Commodity Groups, South Australia

Commodity Group	Value of Retail Sales of Goods			
	1973-74	1974-75 <sup>(a)</sup>	1975-76	1976-77
	\$ million			
Groceries .....	192.9	231.7	293.7	345.8
Butchers meat .....	80.8	91.7	101.9	116.4
Other food .....	130.1	171.1	179.7	210.2
<b>Total food and groceries</b>	<b>403.9</b>	<b>494.5</b>	<b>575.3</b>	<b>672.4</b>
Beer, wine and spirits .....	127.3	158.1	198.0	217.5
Clothing, drapery, etc. ....	200.3	244.2	278.5	321.6
Footwear .....	33.6	39.8	44.7	52.1
Hardware, china, etc. ....	48.1	68.0	70.5	80.5
Electrical goods .....	95.5	142.8	187.0	205.0
Furniture and floor coverings .....	78.4	89.6	112.8	129.6
Chemist goods .....	59.5	72.5	91.1	96.9
Newspapers, books and stationery .....	37.7	48.2	57.8	67.6
Other goods .....	112.2	145.6	159.4	182.7
<b>Total</b> .....	<b>1 196.5</b>	<b>1 503.3</b>	<b>1 775.1</b>	<b>2 025.9</b>

(a) Sample based on 1968-69 Census results.

## WHOLESALE TRADE

The term wholesale trade was used in the wholesale census in the broad sense to include the resale (by agents or principals) of new or used goods to retailers or other wholesalers or to institutional (including government), professional or other business users (including farmers and builders). The more important types of business engaged in wholesale trade are wholesale merchants, who take title to the goods they sell; manufacturers sales branches; commission agents, including import and export agents and purchasing agents; petroleum products distributors; and co-operative and marketing boards engaged in marketing farm products.

## Wholesale Establishments: South Australia and Australia, 1968-69

Particulars	South Australia		Australia
	Number		
Establishments operating at 30 June 1969 .....	3 159	33 356	
Persons employed (a) .....	32 462	358 811	
	\$ million		
Wages and salaries .....	87.0	1 045.3	
Sales on own account, transfers out, commissions received and other operating revenue .....	1 226.9	15 899.1	
Stocks at 30 June:			
1968 .....	135.8	1 945.5	
1969 .....	144.9	2 343.4	
Purchases, transfers in and selected expenses .....	1 006.7	13 524.0	
Value added (b) .....	229.3	2 773.0	

(a) At end of June 1969; includes working proprietors. (b) Sales on own account, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

## TOURIST ACCOMMODATION

The importance of tourism is recognised by a wide cross section of the community and this has caused a demand for comprehensive statistics on the industry. To satisfy requests from various organisations expressing a need for statistics on tourism the Bureau conducted a Census of Tourist Accommodation Establishments for the year ended 30 June 1974 to identify and measure the amount, type and location of accommodation available.

The census covered establishments classified as hotels, motels and guest houses providing predominantly short-term accommodation (for periods of less than two months) to the general public. Caravan parks were also included. Establishments which had nil takings from accommodation, or in which the number of short-term guests was less than long-term guests, were excluded.

## Census of Tourist Accommodation: South Australia, 1973-74

Size of Establishment (Guest Rooms)	Establishments	Guest Rooms		Employment at End of June		Wages and Salaries	Takings from Accommodation
		With all Facilities	Other	Full-time	Other		
		Number					\$'000
		LICENSED HOTELS					
1-15 .....	367	500	2 243	2 343	3 101	15 646	1 914
16-25 .....	56	314	772	594	659	4 103	1 196
26 and over .....	40	1 344	506	823	928	6 042	3 937
Total .....	463	2 158	3 521	3 760	4 688	25 791	7 047
		LICENSED MOTELS					
1-15 .....	7	71	7	20	29	72	158
16-25 .....	15	275	34	55	131	385	710
26 and over .....	37	1 680	36	657	497	3 529	6 699
Total .....	59	2 026	77	732	657	3 986	7 567
		UNLICENSED MOTELS					
1-15 .....	36	373	—	77	74	141	712
16-25 .....	17	323	8	50	72	272	771
26 and over .....	16	548	47	71	133	533	1 631
Total .....	69	1 244	55	198	279	946	3 114
		PRIVATE HOTELS AND GUEST HOUSES					
1-15 .....	22	29	169	38	30	56	161
16-25 .....	6	—	116	10	5	11	69
26 and over .....	8	26	389	35	42	207	432
Total .....	36	55	674	83	77	274	662
		TOTAL ESTABLISHMENTS					
1-15 .....	432	973	2 419	2 478	3 234	15 916	2 946
16-25 .....	94	912	930	709	867	4 772	2 746
26 and over .....	101	3 598	978	1 586	1 600	10 310	12 698
Total .....	627	5 483	4 327	4 773	5 701	30 998	18 390

In addition to type of establishment and type of guest, information was sought on the capacity of accommodation with and without facilities, *i.e.* rooms with private bath/shower and toilet, employment, wages, takings from accommodation, meals and liquor sales. Details collected for caravan parks included the number of sites, on-site vans and cabins. The various items of data were tabulated for regions within the State and information for some items, depending on the number of establishments operating, is available for individual local government areas.

To support the census information, a series of accommodation surveys was introduced in September quarter 1975 to provide an indication of the utilisation of accommodation

available by measuring occupancy rates. The surveys include establishments which provide accommodation predominantly to short-term visitors and calculates room occupancy rates as the proportion of guest rooms occupied to the number of rooms available for accommodating paying guests. Establishments in the surveys are grouped into three categories—licensed hotels with facilities *i.e.* bath or shower and toilet in most guest rooms; licensed or unlicensed motels, private hotels or guest houses with facilities; and licensed hotels, private hotels and guest houses without facilities.

The number of establishments identified in the survey varies slightly according to services and facilities provided, but 111 licensed hotels with facilities, 128 motels and 294 hotels without facilities were included in June 1977. The following table shows occupancy rates and takings from accommodation from June quarter 1976 to June quarter 1977.

**Accommodation Survey, South Australia**

Particulars	Unit	June	Sept.	Dec.	Mar.	June
		Qtr 1976	Qtr 1976	Qtr 1976	Qtr 1977	Qtr 1977
LICENSED HOTELS WITH FACILITIES						
Room occupancy rate . . . . .	%	47.2	43.8	43.7	52.4	48.1
Takings . . . . .	\$'000	1 739	1 670	1 655	1 991	2 139
MOTELS ETC. WITH FACILITIES						
Room occupancy rate . . . . .	%	62.9	59.0	61.5	71.5	62.0
Takings . . . . .	\$'000	3 712	3 532	3 876	4 765	4 221
HOTELS ETC. WITHOUT FACILITIES						
Room occupancy rate . . . . .	%	27.8	26.1	26.5	29.5	28.4
Takings . . . . .	\$'000	775	744	760	834	777

## 10.2 OVERSEAS TRADE

### LEGISLATION AFFECTING OVERSEAS TRADE

The power to make laws with respect to trade and commerce with other countries was conferred on the Commonwealth Parliament by the Commonwealth of Australia Constitution Act, Section 51 (i). Under Section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Commonwealth Government on 1 January 1901. Other references to trade and commerce are contained in Sections 87 to 95 of the Constitution.

The legislation affecting overseas trade includes the *Customs Act*, the *Customs Tariff*, and the *Customs Tariff (Dumping and Subsidies) Act*. The *Customs Act* is the administrative Act under which the Bureau of Customs of the Department of Business and Consumer Affairs operates, while the *Customs Tariff* provides the statutory authority for imposing the actual rates of duty operative from time to time and the *Customs Tariff (Dumping and Subsidies) Act* provides protection for Australian industry against various forms of unfair trading.

#### The Customs Tariff

The first Australian Customs Tariff was introduced by Resolution on 8 October 1901, from which date uniform duties for each State came into effect throughout Australia. The tariff has since been extensively amended—the last major amendment was in 1965 when the tariff was re-issued in 'Brussels Nomenclature' form.

The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to particular imports from certain countries of the British Commonwealth. Duties are also imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are an important source of revenue, but in its protective character the tariff has an influence also on the Australian economy. The present tariff provides for preferential and general rates of duty.

The preferential rates apply to goods which are the produce or manufacture of the United Kingdom, Ireland, Canada, New Zealand and Papua New Guinea. The preferential treatment applies also to the products of countries which have been declared to be preference countries. At present the preference countries are comprised mainly of members of the British Commonwealth of Nations and most of the United Kingdom's dependencies. Certain developing countries are given preferential treatment for selected products.

General rates apply to goods from all countries which do not qualify for preferential rates of duty under a particular tariff classification.

### **Primage Duties**

In addition to the duties imposed by the *Customs Tariff*, *ad valorem* primage duties at rates of 3 per cent, 7 per cent or 10 per cent are charged on some goods according to the type and origin of the goods. Goods which are the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos Islands, Christmas Island or Papua New Guinea, are exempt from primage duty.

### **By-laws**

Under Customs by-laws, goods may be admitted free of duty or at rates of duty lower than those normally applicable. A pre-requisite for by-law admission is that suitably equivalent goods are not reasonably available from Australian production. There are provisions under the by-law system for remitting duty in certain circumstances on imported goods which are to be incorporated in goods for export.

### **Anti-dumping Legislation**

The *Customs Tariff (Anti-Dumping) Act 1975* provides protection for Australian industry against various forms of unfair trading. This Act authorises the imposition of a dumping duty when goods are sold to Australia at a price which is less than the normal value of the goods, or a countervailing duty on subsidised goods, where the dumping or subsidy causes or threatens material injury to an Australian industry. Special duties may be collected also if dumped or subsidised goods are imported to the detriment of the trade of a third country in the Australian market.

### **Import Controls**

A system of import licensing was introduced in 1939 as a war-time measure. In the post-war years these controls were gradually relaxed but were re-imposed in 1952. In 1962 most of these restraints were lifted but some goods remain under control for reasons associated with the protection of certain Australian industries. The Customs (Prohibited Imports) Regulations list those commodities the import of which is prohibited absolutely, or restricted, on social grounds. Other items are prohibited, or restricted, on health grounds (human, animal or plant) by the *Quarantine Act 1908* and the *Therapeutic Goods Act 1966*.

**Export Controls**

Under Section 112 of the *Customs Act* the export of goods from Australia may be prohibited absolutely, prohibited to a specific place, or prohibited unless prescribed conditions or restrictions are observed.

The *Banking Act* 1959 contains provision to ensure that the full proceeds of goods exported from Australia are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia.

**ADVISORY AUTHORITIES ON OVERSEAS TRADE****Industries Assistance Commission**

The Tariff Board was replaced on 1 January 1974 by the Industries Assistance Commission appointed under the *Industries Assistance Commission Act* 1973. The Commission consists of not less than five and not more than nine members and its function is to hold inquiries and make reports to the Minister for Business and Consumer Affairs in respect of matters affecting assistance to industries and any other matters that may be referred to it in accordance with the Act.

The Minister is required to refer to the Commission for inquiry and report on among other matters, the necessity for new, increased or reduced import duties; the necessity for prohibition or restriction of importation of any goods into Australia, or the extension, reduction or removal of any such existing restriction; the necessity to provide financial assistance to an industry by the Commonwealth Government or for increase, reduction or withdrawal of such assistance.

The Minister may refer to the Commission for inquiry and report on the classification of goods in the Customs Tariff or Excise Tariff and matters in connection with the interpretation of these tariffs; the question of the value for duty of goods; whether goods not prescribed in departmental by-laws should be so prescribed; and any matters in respect of which action may be taken under the *Customs Tariff (Anti-Dumping) Act* 1975.

**Temporary Assistance Authority**

The Minister for Business and Consumer Affairs may also request the Temporary Assistance Authority to inquire into cases where urgent action appears necessary to protect an Australian industry against import competition pending receipt and consideration of a full report by the Industries Assistance Commission. The Temporary Assistance Authority's report must be submitted to the Minister within thirty days of the making of the request. Temporary protection recommended by the Temporary Assistance Authority may be imposed only if the matter is under reference to the Industries Assistance Commission and may operate only for a period of up to three months after the date of receipt by the Commission of the final report on the goods concerned.

**ENCOURAGEMENT OF OVERSEAS TRADE****Trade Commissioner Service**

The *Trade Commissioners Act* 1933 provides for the appointment of Trade Commissioners and Assistant Trade Commissioners for Australia in such places as the Governor-General determines. At 31 December 1977 there was an establishment of 165 Trade Commissioners and Assistant Trade Commissioners in Australia and in 58 posts in 46 countries.

In 1957 Australia's official commercial representation was extended by the introduction of a system of Trade Correspondents. These correspondents who are appointed in countries where there is no Trade Commission are engaged on a part-time basis and operate under the general direction of the Trade Commissioner in whose area they are located.

The Trade Commissioner Service is administered by the Department of Trade and Resources and is responsible for overseas commercial intelligence. Particular facilities offered to Australian exporters and export organisations include market surveys, advice on selling and advertising methods, arranging introductions with buyers and agents, providing reports on the standing of overseas firms, assisting business visitors and organising trade missions, trade displays and other publicity and promotion media.

Trade Commissioners participate in inter-governmental negotiations on economic and commercial matters and where necessary make representation to Government authorities of the countries in which they are located on behalf of the Commonwealth Government and Australian firms. A Trade Commissioner may also be called upon to act as the Commonwealth Government representative in areas where there is no Australian diplomatic or consular mission.

In a number of cities where there is a diplomatic or consular mission but no Trade Commissioner, Marketing Officers are appointed to assist Australian businessmen. They work under the direction of the Trade Commissioner whose territory includes the city in which the Marketing Officer is based.

#### **Export Market Development Grants**

The *Export Market Development Grants Act 1974* authorised the establishment of the Export Development Grant Board, to administer the grants scheme. The scheme—operative for five years from 1 July 1974—replaced the Export Market Development Allowance and Export Incentive Grants Schemes which expired on 30 June 1974. The grants are designed to encourage Australian exporters and prospective exporters to seek out and develop overseas markets for products, services, industrial property rights and know-how, which are substantially of Australian origin.

#### **Export Finance and Insurance Corporation**

The *Export Finance and Insurance Corporation Act 1974*, which came into operation on 1 February 1975, established the Export Finance and Insurance Corporation as a body corporate with the statutory duty of encouraging overseas trade and commerce.

The Corporation operates on commercial lines and assumes all the functions which, since 1957, had been performed by the Export Payment Insurance Corporation whose assets, liabilities and commitments were transferred to the new Corporation on 1 February 1975. These functions include the provision of a specialised range of insurance facilities to Australian exporters and investors and the giving of guarantees to banks and other lending institutions in support of export business.

The Corporation is additionally empowered to provide a direct lending facility. This new lending facility is for the purpose of financing, at internationally competitive interest rates, exports of machinery and equipment (and services associated with the export of such goods) sold on extended credit terms, especially if the credit period exceeds five years.

#### **South Australian Trade Representatives**

One of the functions of the Agent-General for South Australia, located in London, is to foster trade with the United Kingdom and other countries. There are also agencies in Djakarta, Hong Kong, Kuala Lumpur, Moscow, Singapore and Tokyo to investigate trade opportunities in these areas.



## TRADE AGREEMENTS

The General Agreement on Tariffs and Trade (GATT), of which Australia is an original member, is an international trade agreement which has been in operation since 1 January 1948. The objectives of the GATT include the expansion of world trade and the raising of living standards throughout the world. The essential features of the GATT are the schedules of tariff concessions which its members have agreed to apply consequent to tariff negotiations with each other, the application of most-favoured-nation treatment among its members, the avoidance of trade discrimination, and a code of agreed commercial policy rules for fair international trading.

Six series of tariff negotiations have been conducted. As a result of the first five, Australia obtained tariff concessions on almost all the principal products of which it is an actual or potential exporter to the individual countries concerned.

The sixth series of tariff negotiations, the Kennedy Round, was based on a plan for linear tariff cuts by industrial countries on all industrial products, with a minimum of exceptions, and on the reduction of non-tariff barriers to trade and the creation of acceptable conditions of access to world markets for agricultural products. It began in May 1964 and concluded in May 1967. The average reduction in tariffs on industrial goods was approximately one-third, while in agriculture the most important item was the agreement reached on the basis for a world grains agreement (now superseded by later agreements; see International Grains Agreement page 338).

A seventh round of negotiations, held under the auspices of GATT, was inaugurated at a meeting of Ministers from over one hundred countries in Tokyo, Japan in September 1973. The new round is concerned with further reductions in tariffs on industrial goods and aims to lower tariff and non-tariff barriers to trade in manufactures and primary products, with particular emphasis on products important to the trade of developing countries.

Australia is also a party to trade agreements with a number of individual countries. These agreements are of two main types, preferential and other.

Preferential agreements are currently operative with Canada, Malaysia and New Zealand. In general these agreements provide for the exchange of preferential rates of duty on a range of commodities traded between Australia and the countries concerned.

Other agreements currently in force are those concluded with Japan (1964), Philippines (1975), Republic of Korea (1975), USSR (1973), Bulgaria (1966), Poland (1966), Hungary (1967), Romania (1967), Yugoslavia (1970), Czechoslovakia (1972), Indonesia (1972), China (excluding Taiwan Province) (1973), Democratic Republic of Vietnam (1974), Iran (1974), and the German Democratic Republic (1974). These agreements relate to the operation of most-favoured-nation treatment and the development of trade in accordance with this principle between Australia and the country concerned.

There is also an agreement establishing a free trade area between Australia and New Zealand (NAFTA).

Details of these agreements are contained in various issues of the *Official Year Book of Australia*.

## METHOD OF RECORDING IMPORTS AND EXPORTS

Overseas trade statistics are compiled from documents obtained under the *Customs Act* 1901. Statistics for South Australia apply to the imports into and exports from Australia which are documented (entered or cleared) at Customs recording points in South Australia.

Imports do not provide a record of the overseas goods used or consumed in South Australia, as some of the goods pass subsequently to other Australian States and some goods imported through other States pass into South Australia. Similarly, exports include some products of other States documented in South Australia, but exclude products of South Australia documented in other States. Commodities transported by sea, air or parcels post are included.

Since the introduction of container shipping early in 1969 containerised goods may be documented as South Australian exports or imports even though loaded or unloaded at ports in other States, particularly Melbourne. The interstate movement of the goods is predominantly by rail.

The procedure adopted to value exports and imports is as follows:

*Exports:*

- (a) Goods sold to overseas buyers before export are valued at the Australian f.o.b. port of shipment equivalent of the actual price at which the goods were sold;
- (b) Goods shipped on consignment are valued at the Australian f.o.b. port of shipment equivalent of the price paid for similar goods of Australian origin in the principal markets of the country to which they are dispatched for sale.

*Imports:*

For imports the recorded value is the value for duty for Customs purposes which, from 1 July 1976 has been based on the internationally recognised Brussels Definition of Value. The value for duty is based on the normal price, *i.e.* the price the goods would fetch at the time when the duty becomes payable on a sale in the open market between a buyer and a seller independent of each other. The goods are valued in the country of exportation, that is, freight and insurances are excluded.

#### **Inclusions and Exclusions**

Export tabulations do not include the value of stores loaded on foreign operated aircraft and ships (e.g. aircraft fuel, bunker oil, food and drink for passengers and crew, and ships' fittings installed on overseas-owned ships in Australian ports). The value of stores loaded on overseas operated vessels and aircraft in South Australia amounted to \$6.74 million in 1976-77. From 1 July 1976, for both imports and exports, the value recorded for each item includes the value of the outside package (containers, crates, etc.). Particulars of direct transit trade through Australia are not recorded.

#### **Countries**

'Country of origin' appearing in import tables should be taken to mean the country of production. 'Country of consignment' appearing in export tables means the country to which goods were consigned so far as this can be determined at the time of export. Where the country of consignment is not determined at the time of export, goods are shown as exported 'For orders'.

## **OVERSEAS TRADE OF SOUTH AUSTRALIA**

### **IMPORTS**

The total value of overseas imports into South Australia during 1976-77, \$629.3 million, was \$127.8 million above the level of 1975-76. Increases in value of imports were recorded in practically all commodity groups with transport equipment (motor vehicles, etc.), mineral fuels and lubricants (petroleum products), foodstuffs, and wood and timber showing the most significant increases.

## Overseas Imports to South Australia, Principal Commodity Groups

Commodity Group	1973-74	1974-75	1975-76	1976-77
	\$'000			
Food and live animals . . . . .	9 288	12 799	10 189	17 778
Beverages and tobacco . . . . .	1 624	1 750	1 860	2 675
Crude materials, inedible:				
Crude rubber . . . . .	2 563	1 577	1 711	2 412
Wood, timber and cork . . . . .	16 615	14 270	16 773	24 433
Textile fibres and waste . . . . .	2 053	542	789	867
Crude fertilisers, crude minerals	9 025	14 189	10 699	14 937
Other . . . . .	2 071	1 481	1 161	1 671
Mineral fuels, lubricants . . . . .	40 283	94 691	126 894	155 077
Animal and vegetable oils and fats	635	905	1 555	1 016
Chemicals:				
Chemical elements and com- pounds . . . . .	4 153	4 621	4 220	7 148
Plastics and artificial resins . . . .	5 018	6 511	5 947	7 820
Other . . . . .	5 613	7 249	6 376	8 846
Manufactured goods:				
Paper and paperboard manufac- tures . . . . .	8 899	12 035	10 251	17 019
Textile yarn, fabrics and made- up articles . . . . .	16 347	19 736	20 156	25 440
Non-metallic mineral manufac- tures, n.e.s. . . . .	7 276	11 840	14 721	18 854
Iron and steel . . . . .	30 222	21 809	10 266	18 755
Non-ferrous metals . . . . .	2 768	2 494	1 848	2 759
Manufactures of metal, n.e.s. . . .	5 703	9 371	8 600	10 747
Other . . . . .	10 191	12 979	13 275	16 728
Machinery and transport equip- ment:				
Machinery, other than electric Electrical machinery and appliances . . . . .	38 850	69 001	78 480	82 321
Transport equipment . . . . .	22 318	33 404	37 547	45 649
Transport equipment . . . . .	42 326	80 276	66 667	99 464
Miscellaneous manufactured arti- cles . . . . .	23 692	39 820	37 086	41 704
Commodities and transactions not classified to kind . . . . .	6 380	8 730	14 406	5 190
Total . . . . .	313 915	482 077	501 476	629 309

The proportions of imports obtained from the major sources have changed considerably in the years since the 1935-49 War e.g. in 1953-54 Japan supplied only 0.46 per cent of the total value of imports into South Australia but in 1976-77 accounted for 22.2 per cent; United Kingdom which supplied over half the imports in 1953-54 accounted for only 8.5 per cent in 1976-77, and imports from the United States of America which accounted for 8.9 per cent of total imports into South Australia in 1953-54, and 32.7 per cent in 1967-68, have declined to 13.4 per cent in 1976-77.

Japan was the major source of imports into South Australia in 1976-77 with \$139.9 million, representing 22.2 per cent of the total value of imports.

The following table shows, by commodity groups, the imports from principal countries during the year 1976-77.

**Overseas Imports to South Australia from Principal Countries  
Commodity Groups, 1976-77**

Commodity Group	Germany, Federal Republic of	Japan	Saudi Arabia	United Kingdom	USA	Total (a)
	\$'000					
Food and live animals:						
Fish and fish preparations .....	81	1 373	—	279	394	4 429
Coffee, tea, cocoa, spices .....	25	—	—	182	11	6 120
Other .....	196	184	—	858	769	7 229
Beverages and tobacco .....	191	—	—	994	1	2 675
Crude materials, inedible:						
Crude rubber .....	9	88	—	75	753	2 412
Wood, timber and cork .....	21	12	—	2	6 273	24 433
Textile fibres and waste .....	425	51	—	70	1	867
Crude fertilisers and crude minerals .....	61	320	—	888	191	14 937
Other .....	101	13	—	5	230	1 671
Mineral fuels, lubricants .....	125	11	126 123	1 408	372	155 077
Animal and vegetable oils and fats .....	—	—	—	15	434	1 016
Chemicals:						
Chemical elements and compounds .....	640	1 428	—	1 009	2 700	7 148
Plastic materials and artificial resins .....	897	1 574	—	1 485	1 946	7 820
Other .....	1 413	526	—	3 002	2 130	8 846
Manufactured goods:						
Rubber manufactures .....	561	2 876	—	3 196	910	10 045
Paper, paperboard and manufactures .....	876	1 299	—	599	962	17 019
Textile yarn, fabrics, made-up articles .....	541	4 507	—	3 027	5 741	25 440
Non-metallic mineral manufactures, n.e.s. ....	785	5 188	—	1 675	1 122	18 854
Iron and steel .....	514	14 707	—	913	320	18 755
Non-ferrous metals .....	209	283	—	467	791	2 759
Manufactures of metal, n.e.s. ....	747	2 652	—	1 792	1 761	10 747
Other .....	119	76	—	509	252	6 683
Machinery and transport equipment:						
Machinery, other than electric .....	11 888	12 035	—	8 886	31 697	82 321
Electrical machinery and appliances .....	3 529	17 798	—	4 613	6 097	45 649
Transport equipment .....	5 581	65 408	—	6 617	10 523	99 464
Miscellaneous manufactured articles .....	2 381	7 308	—	10 719	6 848	41 704
Commodities and transactions not classified to kind .....	204	169	—	313	917	5 190
<b>Total .....</b>	<b>32 118</b>	<b>139 884</b>	<b>126 123</b>	<b>53 599</b>	<b>84 208</b>	<b>629 309</b>

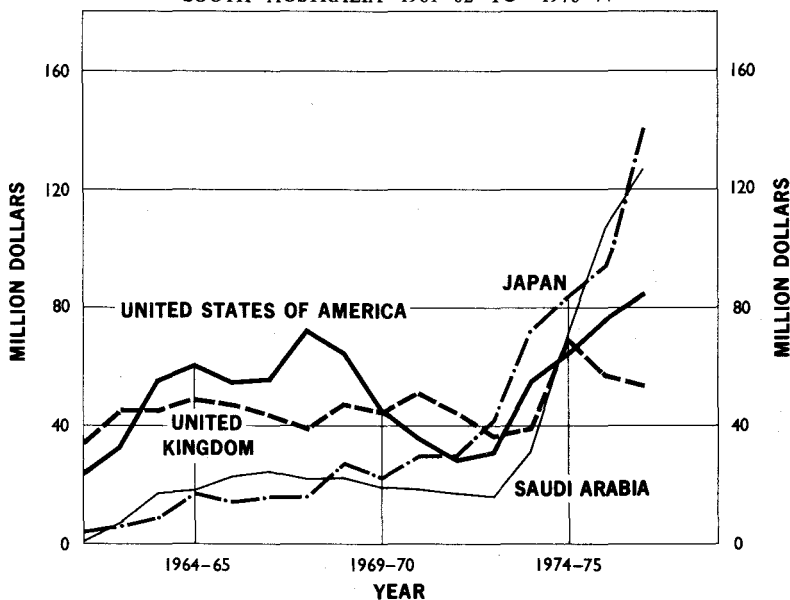
(a) From all sources.

**Overseas Imports to South Australia, Principal Countries**

Country of Origin	1972-73	1973-74	1974-75	1975-76	1976-77
\$'000					
Canada .....	9 253	11 047	15 752	11 237	19 690
China:					
Excluding Taiwan Province ..	1 410	1 965	2 181	1 882	2 888
Taiwan Province only .....	2 176	4 634	6 180	5 787	8 856
France .....	2 910	5 389	10 861	9 816	9 858
Germany, Federal Republic of ..	11 855	19 005	31 304	23 509	32 118
Italy .....	3 765	6 273	13 879	9 872	25 935
Japan .....	40 955	70 852	92 430	93 097	139 884
Netherlands .....	4 199	6 836	9 296	10 359	12 570
New Zealand .....	3 795	5 638	6 787	8 815	14 888
Saudi Arabia .....	15 490	30 245	70 514	105 758	126 123
United Kingdom .....	34 981	37 781	68 479	55 843	53 599
United States of America .....	30 152	53 087	63 140	74 430	84 208
Other .....	39 037	61 163	91 274	91 071	98 692
<b>Total .....</b>	<b>199 978</b>	<b>313 915</b>	<b>482 077</b>	<b>501 476</b>	<b>629 309</b>

## OVERSEAS IMPORTS FOUR PRINCIPAL COUNTRIES

SOUTH AUSTRALIA 1961-62 TO 1976-77



### EXPORTS

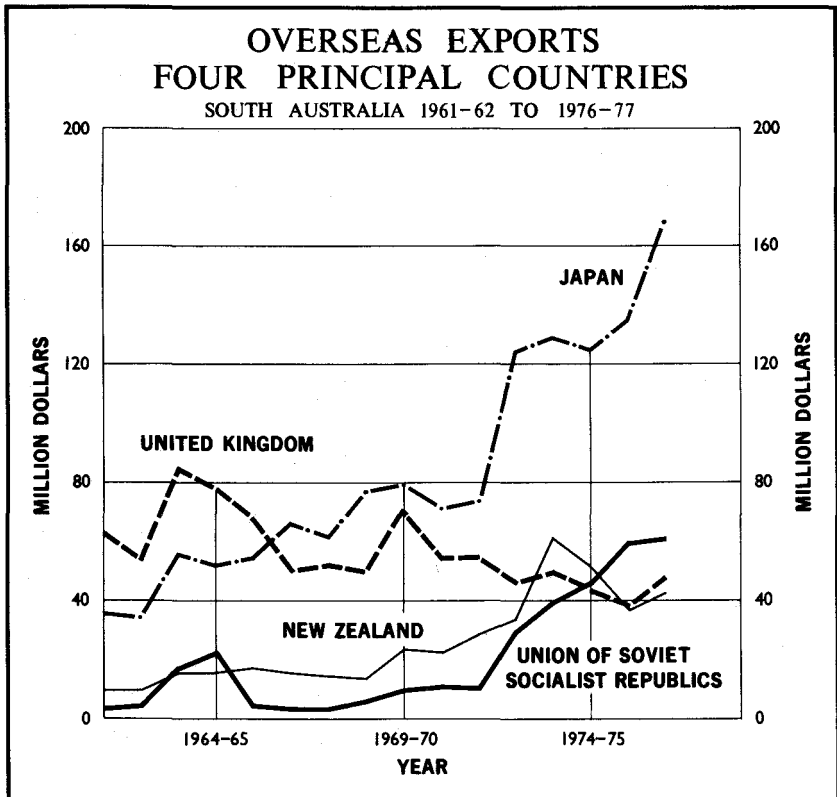
The total value of overseas exports from South Australia during 1976-77 was \$789.9 million, \$104.9 million above the level of 1975-76. Increases in the price of wool and in the quantity shipped contributed significantly to the increase. Meat, fish and non-ferrous metals (silver, lead and zinc) exports also increased considerably. For the second year in succession, the quantity of barley exports exceeded wheat exports.

#### Overseas Exports from South Australia, Principal Commodities

Commodity	1972-73	1973-74	1974-75	1975-76	1976-77
	QUANTITY				
Beef, lamb and mutton ('000 kg) .....	37 760	23 635	24 693	34 261	47 545
Wheat (tonnes) .....	924 702	996 944	1 190 166	810 603	636 769
Barley (tonnes) .....	334 397	469 072	922 053	922 220	835 401
Wool:					
Greasy ('000 kg) .....	90 676	65 030	62 120	73 437	84 892
Other ('000 kg) .....	5 760	4 956	4 586	7 304	6 081
Ores and concentrates:					
Iron ('000 tonnes) .....	1 123	1 087	930	1 119	809
Lead and lead alloys, unworked (tonnes) .....	152 874	138 069	116 063	146 634	137 228
Iron and steel; blooms, billets etc. (tonnes) .....	434 750	369 672	547 303	466 123	535 816
Passenger motor cars:					
Unassembled (No.) .....	41 869	n.a.	n.a.	n.a.	n.a.
Assembled (No.) .....	1 479	1 579	591	69	93

## Overseas Exports from South Australia, Principal Commodities (continued)

Commodity	1972-73	1973-74	1974-75	1975-76	1976-77
	VALUE (\$'000)				
Beef, lamb and mutton .....	30 554	25 495	16 347	22 477	34 274
Wheat .....	46 251	98 674	163 411	98 978	77 900
Barley .....	17 250	40 790	99 517	90 290	88 072
Wool:					
Greasy .....	137 329	138 895	84 744	99 438	154 752
Other .....	12 627	14 307	8 528	16 122	17 786
Ores and concentrates:					
Iron .....	10 606	10 394	11 695	15 165	13 562
Lead and lead alloys, unworked .....	37 374	46 556	44 212	37 112	58 063
Iron and steel; blooms, billets etc. ....	27 910	32 176	73 658	46 081	55 612
Passenger motor cars:					
Unassembled .....	19 045	31 247	23 410	14 185	8 483
Assembled .....	3 680	4 499	1 653	311	497



Exports of manufactured goods have been increasing but the bulk of exports is still of goods usually classified as primary products. In 1976-77 the 'Crude materials, inedible' group accounted for \$280.2 million, or 35.5 per cent of exports (including wool \$172.7 million, 21.9 per cent), and the 'Food and live animals' group accounted for \$267.0 million.

## Overseas Exports from South Australia, Principal Commodity Groups

Commodity Group	1972-73	1973-74	1974-75	1975-76	1976-77
	\$'000				
Food and live animals:					
Live animals .....	2 729	5 937	5 389	3 927	12 844
Meat and meat preparations .....	34 942	28 311	17 800	25 357	36 486
Fish and fish preparations .....	9 661	8 890	8 214	11 639	20 662
Cereal grains and cereal preparations .....	66 900	147 027	276 412	205 551	178 260
Other .....	20 266	19 488	16 594	16 351	18 721
Beverages and tobacco .....	2 593	3 575	2 933	3 206	3 044
Crude materials, inedible (except fuels):					
Hides and skins .....	14 532	11 679	7 127	10 707	19 196
Textile fibres and their waste .....	149 997	153 133	93 487	115 735	172 670
Metalliferous ores and metal scrap .....	48 460	74 009	87 437	101 780	82 557
Other .....	4 371	3 664	5 029	4 237	5 791
Mineral fuels and lubricants .....	1 227	1 529	4 129	7 859	17 779
Animal and vegetable oils and fats .....	2 617	3 941	4 228	4 960	6 103
Chemicals .....	1 275	2 402	4 735	2 275	679
Manufactured goods:					
Iron and steel .....	33 240	39 624	80 548	50 391	61 078
Non-ferrous metals .....	47 962	59 124	71 296	52 656	84 602
Manufactures of metals, n.e.s. ....	4 554	3 990	9 348	4 109	7 758
Other .....	7 717	8 569	9 756	11 134	13 906
Machinery and transport equipment .....	62 819	80 759	53 010	40 893	34 797
Miscellaneous manufactured articles .....	4 922	6 020	5 850	7 767	10 839
Commodities and transactions not classified to kind .....	935	1 207	1 086	4 496	2 099
Total .....	521 720	662 881	764 410	685 029	789 872

Overseas Exports from South Australia to Principal Countries  
Commodity Groups, 1976-77

Commodity Group	Germany, Federal Republic of	Japan	New Zealand	United Kingdom	USA	USSR	Total (a)
	\$'000						
Food and live animals:							
Meat and meat preparations .....	38	9 094	—	1 014	6 534	4 734	36 486
Dairy products and eggs .....	—	5 154	—	3	127	—	6 323
Fish and fish preparations .....	82	9 318	86	173	6 053	—	20 662
Cereal grains and cereal preparations .....	9 724	36 544	4	9 085	—	8 211	178 260
Fruit and vegetables .....	361	1 860	575	728	1 177	—	8 866
Other .....	—	1 130	—	320	33	—	16 376
Beverages and tobacco .....	5	88	275	363	144	—	3 044
Crude materials, inedible:							
Hides and skins .....	1 041	1 012	—	493	23	23	19 196
Textile fibres and their waste .....	13 925	30 460	114	10 525	2 404	47 538	172 670
Metalliferous ores and metal scrap .....	8 827	49 908	39	562	1 577	119	82 557
Other .....	467	128	1 538	249	70	—	5 791
Mineral fuels and lubricants .....	—	—	6 049	2	—	—	17 779
Animal and vegetable oils and fats .....	13	534	3	18	12	—	6 103
Chemicals .....	—	5	195	170	41	—	679
Manufactured goods:							
Iron and steel .....	15 711	17 165	4 701	15	34	—	61 078
Non-ferrous metals .....	429	5 087	12 881	17 518	7 315	—	84 602
Other .....	517	162	1 258	1 065	2 675	—	21 664
Machinery and transport equipment:							
Machinery, other than electric .....	134	16	2 994	168	1 708	2	11 730
Electrical machinery and appliances .....	42	127	1 568	1 291	296	—	7 301
Transport equipment .....	10	38	8 270	1 289	160	—	15 765
Miscellaneous manufactured articles .....	130	460	1 373	1 834	2 445	—	10 839
Commodities and transactions not classified to kind .....	20	4	223	464	134	—	2 099
Total .....	51 474	168 293	42 145	47 348	32 963	60 627	789 872

(a) To all countries.

The following table shows the value of exports to principal countries during each of the years 1972-73 to 1976-77. Japan replaced United Kingdom as South Australia's principal export market in 1966-67 and has retained that position. In 1976-77 Japan took goods valued at \$168.3 million, 21.3 per cent of total exports, compared with \$134.9 million (19.7 per cent) in 1975-76. USSR (\$60.6 million, 7.7 per cent) was the second largest market in 1976-77.

### Overseas Exports from South Australia, Principal Countries

Country of Consignment	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Arab Republic of Egypt	3 785	9 845	16 403	19 477	7 481
Belgium-Luxembourg	8 622	8 602	11 983	28 856	21 371
China:					
Excluding Taiwan Province	1 848	10 633	15 675	8 784	7 277
Taiwan Province only	8 991	9 720	9 729	15 212	17 988
France	23 363	19 410	15 741	14 694	19 797
Germany, Federal Republic of	32 264	23 320	47 219	33 114	51 474
Hong Kong	8 810	8 428	7 721	14 746	19 662
India	10 692	17 882	20 039	15 689	16 705
Indonesia	7 343	14 419	13 416	12 062	9 334
Iran	6 960	12 019	18 190	15 736	33 704
Iraq	18	11 725	41 532	13 967	15 582
Italy	10 814	15 210	8 736	15 026	28 600
Japan	124 592	129 074	125 042	134 881	168 293
Netherlands	4 710	12 739	21 739	26 586	17 337
New Zealand	33 458	60 822	51 429	37 050	42 145
Sri Lanka	5 254	8 417	15 233	12 749	12 043
South Africa, Republic of	21 945	27 828	19 084	15 946	11 240
United Kingdom	46 114	49 346	43 650	38 728	47 348
United States of America	38 969	28 027	19 932	24 351	32 963
USSR	29 449	39 084	45 533	58 959	60 627
Other	93 719	146 331	196 384	128 416	148 901
Total	521 720	662 881	764 410	685 029	789 872

### Exports of Wool

In 1976-77 the major export markets for South Australian wool were USSR (\$47.5 million, 27.6 per cent) and Japan (\$30.5 million, 17.7 per cent).

### Overseas Exports of Wool from South Australia

Country of Consignment	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Belgium-Luxembourg	4 919	4 162	2 165	2 124	3 206
France	12 038	10 821	9 594	7 230	8 807
Germany, Federal Republic of	9 589	5 263	9 671	7 487	13 925
Italy	6 420	6 889	4 017	8 869	9 250
Japan	60 717	37 002	18 108	30 635	30 460
Netherlands	2 145	5 236	3 602	2 837	3 820
Poland	5 050	7 744	2 734	3 908	6 623
United Kingdom	7 709	6 080	3 348	4 144	10 522
USSR	13 800	39 084	18 650	21 532	47 538
Yugoslavia	4 794	7 022	3 650	2 016	4 403
Other	22 773	23 900	17 735	24 778	33 984
Total	149 956	153 202	93 273	115 560	172 538



**Exports of Wheat**

The total value of wheat exported from South Australia in 1976-77, \$77.9 million, was \$22.1 million below 1975-76 and \$85.5 million below the record of \$163.4 million in 1974-75.

The relative importance of countries of consignment fluctuates from year to year. Iraq has continued to be a major buyer taking \$15.0 million in 1976-77, as has Sri Lanka with \$11.4 million. Previously large markets, such as USSR, New Zealand, Egypt and China declined markedly in 1976-77.

**Overseas Exports of Wheat from South Australia**

Country of Consignment	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Arab Republic of Egypt . . . .	2 595	8 688	13 094	16 495	1 485
China:					
Excl. Taiwan Province . . .	1 456	9 551	15 323	7 868	3 605
Taiwan Province only . . . .	—	—	—	—	—
Iraq . . . . .	—	11 265	41 303	13 891	14 983
Korea, Democratic Republic of . . . . .	—	—	—	2 119	6 184
New Zealand . . . . .	—	5 116	12 819	8 110	—
Sri Lanka . . . . .	5 114	7 232	11 549	10 299	11 429
USSR . . . . .	15 648	—	22 149	13 193	4 007
Vietnam . . . . .	—	—	—	4 663	6 615
Yemen, Arab Republic of . .	1 450	5 071	1 169	3 377	4 043
Yemen, Democratic Republic of . . . . .	—	—	—	—	8 444
Zambia . . . . .	567	4 197	2 876	3 535	5 559
Other . . . . .	19 421	47 554	43 129	15 428	11 546
<b>Total . . . . .</b>	<b>46 251</b>	<b>98 674</b>	<b>163 411</b>	<b>98 978</b>	<b>77 900</b>

**TRADE AT PRINCIPAL PORTS**

Over 97 per cent of imports are unloaded at Port Adelaide and Port Stanvac but the proportion of exports loaded there is much lower—in 1976-77 it was approximately 61 per cent. Exports from Port Pirie principally comprise pig-lead, concentrates and ores (the produce of Broken Hill), wheat and barley. Shipments of wheat and barley constitute the major part of exports from Port Lincoln, Wallaroo, Ardrossan, Thevenard and Port Giles.

**Value of Overseas Trade: Principal Ports, South Australia**

Port	1972-73	1973-74	1974-75	1975-76	1976-77
			IMPORTS (\$'000)		
Port Adelaide (a) . . . . .	171 379	270 252	382 742	365 785	484 642
Port Lincoln . . . . .	757	1 455	3 398	3 739	3 490
Port Pirie . . . . .	2 080	1 037	3 059	2 274	691
Port Stanvac . . . . .	18 100	36 871	84 490	111 100	129 014
Thevenard . . . . .	—	1	—	—	—
Wallaroo . . . . .	360	979	1 080	—	4 442
Whyalla . . . . .	7 303	3 320	7 309	18 578	7 030
<b>Total . . . . .</b>	<b>199 978</b>	<b>313 915</b>	<b>482 077</b>	<b>501 476</b>	<b>629 309</b>

## Value of Overseas Trade: Principal Ports, South Australia (continued)

Port	1972-73	1973-74	1974-75	1975-76	1976-77
EXPORTS (\$'000)					
Ardsrossan .....	7 454	14 807	15 751	2 539	10 428
Port Adelaide (a) .....	356 487	405 920	357 929	372 564	467 363
Port Augusta .....	—	1 394	1 940	—	—
Port Giles .....	3 172	8 571	5 506	3 082	10 282
Port Lincoln .....	19 230	42 103	91 230	58 120	54 236
Port Pirie .....	72 251	98 224	115 587	109 370	112 416
Port Stanvac .....	113	549	1 276	7 374	15 738
Thevenard .....	11 408	24 193	35 967	17 160	7 514
Walleroo .....	9 297	19 763	46 920	51 292	37 764
Whyalla .....	42 306	47 357	92 304	63 528	74 131
<b>Total .....</b>	<b>521 720</b>	<b>662 881</b>	<b>764 410</b>	<b>685 029</b>	<b>789 872</b>

(a) Includes 'Parcels Post, Adelaide'; 'Adelaide City (including Adelaide Airport)', Stenhouse Bay and Woomera.

## CUSTOMS AND EXCISE DUTY

Excise duty is levied on specific goods of Australian manufacture, principally for the purpose of raising revenue. Although these excise goods do not form a part of overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. The following table gives details of the value of customs duty and excise duty collected in South Australia during the years 1973-74 to 1975-76.

## Customs and Excise: Net Revenue, South Australia

Customs Tariff and Excise Tariff Item	1973-74	1974-75	1975-76
CUSTOMS			
	\$'000		
Live animals; animal products .....	49	43	62
Vegetable products .....	49	64	26
Animal and vegetable oils and fats .....	51	15	144
Prepared foodstuffs; beverages; vinegar; tobacco:			
Spirituous and alcoholic preparations .....	4 216	6 181	7 138
Tobacco, cigarettes, etc. ....	957	770	1 052
Other .....	370	647	574
Automotive spirit and other mineral products .....	1 782	2 065	4 918
Chemicals and products thereof .....	243	248	307
Plastics, resins, rubber and manufactures thereof ..	1 508	2 023	2 388
Hides, skins, leather and articles thereof .....	200	213	286
Wood and wicker .....	1 609	1 530	2 019
Paper-making material; paper and paper manufactures .....	615	639	509
Textiles .....	2 835	4 494	4 847
Footwear, sunshades, whips, artificial flowers, etc. .	268	381	283
Earthenware, cement, china, etc. ....	642	845	1 052
Pearls, precious stones and metals, imitation jewellery, coin, etc. ....	142	198	315
Base metals and articles thereof .....	1 409	1 695	2 422
Electrical and mechanical machines and machinery ..	6 704	12 747	12 926
Transport equipment and parts thereof .....	8 096	18 315	16 634
Optical, surgical and scientific instruments, etc. ....	741	838	853
Arms and ammunition and parts thereof .....	8	25	20

## Customs and Excise: Net Revenue, South Australia (continued)

Customs Tariff and Excise Tariff Item	1973-74	1974-75	1975-76
CUSTOMS (continued)		\$'000	
Miscellaneous manufactured articles . . . . .	750	977	1 143
Works of art, antiques, etc. . . . .	3	4	7
Other customs revenue . . . . .	149	9	7
Primage . . . . .	150	-14	298
<b>Total net customs and primage duties . . . . .</b>	<b>33 546</b>	<b>54 951</b>	<b>60 229</b>
EXCISE			
Petroleum products . . . . .	59 077	61 100	57 435
Spirits . . . . .	8 550	12 264	13 086
Tobacco, cigars and cigarettes . . . . .	37 145	44 585	51 717
Other . . . . .	34 433	36 087	53 940
<b>Total net excise duties . . . . .</b>	<b>139 205</b>	<b>154 036</b>	<b>176 178</b>
<b>Total net customs, primage and excise revenue . . . . .</b>	<b>172 751</b>	<b>208 988</b>	<b>236 407</b>

## 10.3 PRICES

## MEASUREMENTS OF PRICE MOVEMENTS

The prices of a wide range of commodities and services are recorded at regular intervals by the Australian Statistician for the purpose of compiling various price indexes or for publication of series showing actual price levels.

Price indexes aim to measure the degree of change in price levels, or more specifically the proportionate change in the aggregate price, of specified quantities and qualities of a list of selected items. These indexes measure changes through time and it is traditional for presentation purposes to select a certain year, known as the base year, to equate the average aggregate price (of the list of items) in that year to 100 or some other suitable number, and to adjust other years on a proportionate basis.

When index numbers for different places are compared (*e.g.* Consumer Price Index, Capital Cities) the only legitimate comparison is the relative change *i.e.* that prices increased or decreased more in one place than another; even when a common base year is used the actual levels of prices, equated to 100 in each case, may differ substantially from place to place; in addition, selected items, qualities or weights may differ from place to place.

In constructing a price index it is necessary to limit attention to a selected list of items because it would clearly be impossible to determine at regular intervals the price of all items entering into a given field of expenditure (*e.g.* household expenditure in the case of the Consumer Price Index). The list of items selected must be as representative as possible of the field to be covered and consist of items for which price variations can be ascertained accurately at regular intervals. Each item must be assigned a relative importance (weight) in approximate proportion to actual expenditures on that item within the total field of expenditure being considered. Particular care must be taken to detect, assess, and make allowance for changes in quality of selected items.

Over time it becomes necessary to substitute new grades, qualities or types of articles for those formerly used as indicators of price movements in an effort to keep an index representative of current patterns of expenditure. These substitutions can normally be

achieved without invalidating the index. From time to time major changes in the overall pattern of expenditure are noted, and in the past these have prompted the abandonment of an existing index in favour of a different index, the composition and weighting of which were more representative of expenditure at that time.

### RETAIL PRICE INDEXES

A brief historical review of early price indexes was included on page 494 of the *South Australian Year Book 1970*. Details of movements in the 'C' Series Index from 1901 to 1959 are shown in the Statistical Summary Appendix A.

#### Consumer Price Index

The Consumer Price Index (CPI) is a chain of 'fixed weight aggregative' linked indexes with significant changes in composition and weighting effected at relatively short intervals. Links have previously been effected at June quarter 1952, June quarter 1956, March quarter 1960, December quarter 1963, December quarter 1968 and December quarter 1973 with a minor link at September quarter 1974. A further link in the series was made at September quarter 1976.

During each period between links the weighting pattern remains unchanged. At times of linking the weighting pattern is brought up-to-date and the content of the Index is reviewed. Under this method, in effect, average percentage price movements are assessed on one pattern up to the time of the link and on another pattern thereafter. The process of linking ensures that the series reflects only price variations and not differences in cost of the old and new combinations and lists of items. The introduction of new items and weights by linking does not, of itself, raise or lower the level of the Index.

There are no ideal points of time for linking the various series since, particularly in times of disparate and large price movements, the application of different weights to the same price series over the same periods of time would cause differences in aggregative changes. The ninth series was introduced from September quarter 1976, the earliest possible stage following availability of detailed data from the Household Expenditure Survey 1974-75.

The structure of the new series is derived from this survey which was the first survey of this type conducted by the Australian Bureau of Statistics. This enables the Index to be related more specifically to a 'target group' of the population (see next paragraph) and to have appropriate separate weighting patterns for each of the seven cities for which index numbers are compiled. The ninth series measures variations in retail prices for goods and services representing more than 90 per cent of defined household expenditure by the target group.

The target group for the ninth CPI series comprises metropolitan wage and salary earner households with total income of more than the minimum adult wage but excluding the top ten per cent of such households. 'Metropolitan wage and salary earner households' are those households (as defined in the Household Expenditure Survey) which derive at least seventy-five per cent of total income from wages and salaries. The minimum adult wage is that for each capital city separately. The 'top ten per cent' of households excluded were those whose incomes are more than the ninth decile of the population of wage and salary earner households in all metropolitan areas combined.

This target group was determined as a suitable current basis which was also in keeping with the past general description of the CPI as a measure of variations in prices of goods and services as affecting a high proportion of the expenditure of wage earner households in the aggregate. A special tabulation from the Household Expenditure Survey 1974-75 for households within this target group supplied the basic weighting pattern for the Index. The households included had average weekly total household incomes which ranged from approximately \$60 to \$370 in 1974-75.

The structure of the Index after the eighth link is shown in the table below which describes the weights of the groups into which the Index has been subdivided in the form of percentages contributed by each group to the total Index aggregate for September quarter 1976. These percentages indicate the relative influence given to the various components in measuring the degree of price change from September quarter 1976 (*i.e.* from the beginning of the new linked series). These proportions represent the amounts of expenditure shown by the 1974-75 Household Expenditure Survey (for the target group) revalued at the price levels of September quarter 1976.

**Consumer Price Index: Six State Capital Cities Combined Composition**  
**September Quarter 1976**

Group	Percentage Contribution to Total Index Aggregate (a)
Food .....	21.026
Clothing .....	10.141
Housing .....	13.544
Household equipment and operation .....	14.761
Transportation .....	18.453
Health and personal care .....	3.950
Recreation .....	7.878
Tobacco and alcohol .....	10.247
<b>All Groups .....</b>	<b>100.000</b>

(a) Percentage contributions shown are in proportion to expenditure in 1974-75 valued at relevant prices of September quarter 1976.

The wide range of commodities and services in the Consumer Price Index are arranged in eight major groups, with index numbers compiled for each of these groups as well as a total for all items. Index numbers for Adelaide for these individual groups and for 'All Groups' are recorded in the next table.

**Consumer Price Index, Adelaide<sup>(a)</sup>**  
**Base Year: 1966-67 = 100.0**

Quarter	Food	Clothing	Housing	Household Equipment and Operation	Transportation	Tobacco and Alcohol	Health and Personal Care	Recreation	All Groups
<b>1975:</b>									
March .....	163.4	176.2	191.3	153.3	178.1	171.7	208.1	n.a.	173.8
June .....	170.0	183.9	198.2	155.7	182.3	178.0	207.9	n.a.	179.3
September .....	171.5	189.6	204.0	159.9	188.5	182.9	(b)136.3	n.a.	(b)178.2
December .....	176.0	202.2	221.3	173.9	194.6	208.5	141.2	n.a.	188.6
<b>1976:</b>									
March .....	185.9	205.0	228.0	177.2	198.7	214.2	145.2	n.a.	194.6
June .....	189.0	217.4	235.0	181.4	203.1	219.2	153.4	n.a.	200.4
September .....	197.4	220.7	241.3	184.2	207.6	220.7	156.7	100.0	205.5
December .....	203.8	235.8	252.5	187.0	213.5	224.7	(b)310.2	101.0	(b)220.0
<b>1977:</b>									
March .....	207.6	240.7	258.1	192.7	217.7	225.5	313.9	105.0	224.7
June .....	214.4	248.6	263.3	196.2	223.0	227.6	318.0	109.0	230.1
September .....	224.3	252.0	268.0	201.0	228.4	231.4	320.8	109.7	235.6
December .....	228.0	260.2	275.7	206.8	234.2	233.1	324.1	112.6	241.0

(a) For 'Health and Personal Care' group index, base period December quarter 1968 = 100.0 and for 'Recreation' group index, base period September quarter 1976 = 100.0.

(b) Affected by Medibank changes.

The 'All Groups' index for Adelaide is shown in the following table with that for each of the other capital cities. It is emphasised that these numbers reflect changes in prices within each individual city, but they do *not* measure differences in the level of prices between cities, and the Consumer Price Index should *not* be regarded as a 'cost of living' index.

Consumer Price Index, Adelaide and Other Capital Cities<sup>(a)</sup>

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Six State Capital Cities	Canberra
1966-67 ...	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0
1967-68 ...	103.2	103.7	103.3	<b>102.9</b>	102.9	104.6	103.3	102.6
1968-69 ...	106.2	106.2	105.5	<b>105.3</b>	105.5	106.1	106.0	104.4
1969-70 ...	110.6	108.7	108.4	<b>108.2</b>	109.4	108.5	109.4	107.4
1970-71 ...	116.8	113.1	114.2	<b>112.5</b>	114.1	112.6	114.6	113.0
1971-72 ...	126.3	119.7	121.6	<b>119.2</b>	120.7	119.9	122.4	119.4
1972-73 ...	133.9	127.2	128.6	<b>126.5</b>	127.3	126.7	129.8	126.3
1973-74 ...	151.3	144.0	146.1	<b>143.9</b>	140.6	142.6	146.6	142.8
1974-75 ...	176.1	167.9	168.7	<b>169.7</b>	166.1	166.7	171.1	164.9
1975-76 ...	199.0	189.5	190.9	<b>190.5</b>	189.6	190.0	193.3	187.3
1976-77 ...	223.4	216.6	218.0	<b>220.1</b>	219.4	217.7	219.9	212.9

(a) Base year 1966-67 = 100.0.

The quarterly information discussed above was supplemented in April 1973 by the release of monthly Consumer Price Index numbers for the food group and its component sub-groups for the period March 1972 to March 1973.

Further details and a continuation of the series may be obtained from the bulletin *Consumer Price Index: Monthly Food Group Index* (Catalogue No. 6402.0) published by the Australian Statistician.

#### OTHER PRICE INDEXES

At December 1977 the following indexes covering non-retail sectors of the economy had been prepared and published by the Australian Statistician:

Export Price Index,

Price Index of Electrical Installation Materials,

Price Index of Metallic Materials Used in the Manufacture of Fabricated Metal Products,

Price Index of Copper Materials Used in the Manufacture of Electrical Equipment,

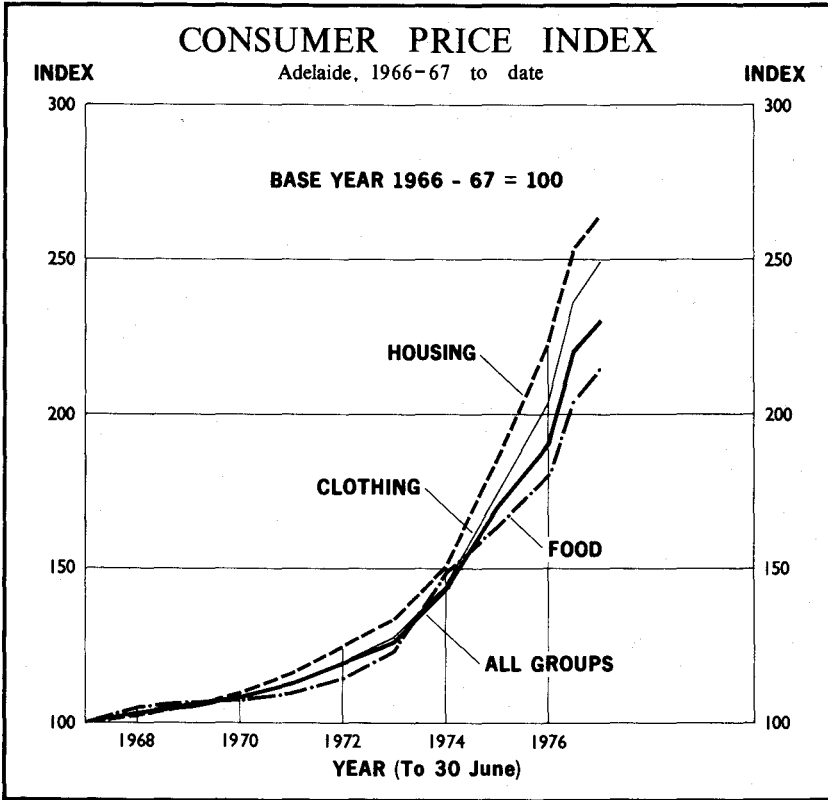
Price Index of Materials Used in Manufacturing Industry,

Price Index of Articles Produced by Manufacturing Industry,

Price Index of Materials Used in House Building,

Price Index of Materials Used in Building Other than House Building.

Separate State figures are published for the latter two indexes, and these are further explained below. Details of the other indexes are available in bulletins published by the Australian Statistician and, in addition, a brief explanation of the Price Index of Articles Produced by Manufacturing Industry was included in the *South Australian Year Book 1977*.



#### Price Index of Materials Used in House Building

This Index was introduced in November 1970. It measures changes in prices of selected materials used in the construction of houses. It is a fixed weights index, the composition of which is in accordance with the usage of materials in actual houses which were selected as representative for the purpose. The Index does not purport to represent buildings of any kind other than houses.

In the interests of uniformity and ease of use the reference base of the Index is the year 1966-67 = 100.0 the same as that used for the Price Index of Materials Used in Building Other than House Building. However, because of the later time at which the weighting source data were collected, the weighting base approximates more closely the year 1968-69. Each State capital city has a unique weighting pattern which reflects the difference in the estimated relative importance of given items as between cities.

Prices are collected at the mid-point of the month to which the Index refers, or as near thereto as practicable. They relate to specified standards of each commodity and are obtained in all State capital cities from representative suppliers of materials used in house building.

Further information concerning the method of compiling the Index, as well as more detailed group index numbers and the separate weighting patterns for the six State capital cities may be found in the publication *Price Index of Materials Used in House Building* (Catalogue No. 6408.0). A full description of the Index is also given in the *Labour Report* No. 58, 1973, and the *Official Year Book of Australia*.

The following table shows, for separate groups of items and all groups combined, the index numbers for Adelaide and the weighted average index numbers for the six State capital cities.

**Price Index of Materials Used in House Building**  
(Base of each Index: 1966-67 = 100.0)

Group	Adelaide			Weighted Average Six State Capital Cities		
	1974-75	1975-76	1976-77	1974-75	1975-76	1976-77
Concrete, etc. ....	160.9	193.2	218.3	165.7	195.1	217.8
Cement products. ....	205.0	237.4	272.9	193.1	227.0	258.9
Clay bricks, tiles, etc. ....	181.4	209.1	229.3	180.3	205.1	227.8
Timber, board, etc. ....	230.5	255.9	292.1	203.5	226.2	254.1
Steel products. ....	190.0	232.5	264.1	192.1	229.3	263.2
Other metal products. ....	170.1	188.2	210.5	170.3	187.1	207.9
Plumbing fixtures, etc. ....	180.4	207.1	225.3	174.5	201.5	224.3
Electrical installation materials	163.4	174.6	188.6	168.3	183.5	201.8
Installed appliances. ....	147.6	169.2	190.6	146.4	165.9	181.9
Plaster and plaster products. ....	155.6	178.4	188.5	147.8	167.7	178.8
Miscellaneous materials. ....	176.4	203.0	229.5	161.5	187.9	210.7
<b>All Groups. ....</b>	<b>195.4</b>	<b>222.5</b>	<b>250.7</b>	<b>183.4</b>	<b>208.1</b>	<b>232.9</b>

The 'All Groups' index for Adelaide and each of the other State capitals is shown in the following table. It is emphasised that these numbers reflect price changes within each individual city and that they do not measure differences in the level of prices between cities.

**Price Index of Materials Used in House Building**  
**All Groups, State Capital Cities**  
(Base of each Index: 1966-67 = 100.0)

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Weighted Average Six State Capital Cities
1972-73 ...	135.6	126.5	133.8	<b>134.8</b>	126.9	130.8	131.1
1973-74 ...	158.0	147.8	152.2	<b>157.2</b>	141.8	145.5	151.3
1974-75 ...	189.4	178.4	187.0	<b>195.4</b>	172.4	179.1	183.4
1975-76 ...	211.1	200.1	218.5	<b>222.5</b>	201.9	209.2	208.1
1976-77 ...	234.5	223.6	243.5	<b>250.7</b>	229.8	235.1	232.9



### Price Index of Materials Used in Building Other than House Building

This Index was introduced in April 1969. It measures changes in prices of selected materials used in the construction of buildings other than houses and low-rise flats. It is a fixed weights index, the composition of which is in accordance with the materials usage in building projects selected as representative for the purpose: such usage was derived from reported values of each material used in selected representative buildings constructed in or about 1966-67. Thus the reference base of the Index is the year 1966-67 = 100.0. The weighting base corresponds broadly with the reference base, but does not exactly coincide because of the nature of the data from which the weights were derived.

Prices are collected at the mid-point of the month to which the Index refers, or as near thereto as practicable. They relate to specified standards of each commodity and are obtained in all State capital cities from representative suppliers of materials used in building.

Further information concerning the method of compiling the Index may be found in the publication *Price Index of Materials Used in Building Other than House Building* (Catalogue No. 6407.0). A full description of the Index is also given in *Labour Report* No. 58, 1973, and the *Official Year Book of Australia*.

The following table shows, for separate groups of items and all groups combined, the index numbers for Adelaide and the weighted average index numbers for the six State capital cities.

**Price Index of Materials Used in Building Other than House Building**  
(Base of each Index: 1966-67 = 100.0)

Group	Adelaide			Weighted Average Six State Capital Cities		
	1974-75	1975-76	1976-77	1974-75	1975-76	1976-77
Concrete, etc. ....	156.1	185.7	209.0	164.6	193.0	215.6
Cement products. ....	194.4	233.8	259.0	183.9	220.0	244.7
Bricks, stone, etc. ....	191.4	221.1	242.7	179.4	202.7	224.0
Timber, joinery, etc. ....	212.0	244.3	273.6	194.7	219.3	243.6
Steel and iron products. ....	187.5	225.1	250.1	189.2	223.4	251.7
Aluminium products. ....	163.7	185.1	206.9	169.2	193.6	213.7
Other metal products. ....	160.6	176.6	202.2	162.7	173.3	195.0
Plumbing fixtures. ....	204.6	235.4	254.1	197.7	232.1	251.2
Miscellaneous materials. ....	168.6	192.3	208.7	163.4	186.8	204.2
Electrical installation materials	157.4	177.4	199.6	157.4	177.4	199.6
Mechanical services components	181.6	201.4	225.4	181.3	201.3	225.4
Special purpose index (a).....	183.5	215.5	239.6	181.3	210.1	234.5
All Groups. ....	181.0	210.4	234.3	179.2	206.2	230.3

(a) All groups excluding electrical installation materials and mechanical services components.

The 'All Groups' index for Adelaide and each of the other State capitals is shown in the following table. It is emphasised that these numbers reflect price changes within each individual city, but they do not measure differences in the level of prices between cities.

**Price Index of Materials Used in Building Other than House Building**  
**All Groups, State Capital Cities**  
 (Base of each Index: 1966-67 = 100.0)

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Weighted Average Six State Capital Cities
1972-73 . . . .	127.2	131.2	130.4	<b>129.8</b>	126.3	129.7	128.9
1973-74 . . . .	144.1	148.0	149.0	<b>145.8</b>	142.9	143.8	145.8
1974-75 . . . .	176.0	180.6	186.6	<b>181.0</b>	176.7	179.3	179.2
1975-76 . . . .	199.0	209.4	216.3	<b>210.4</b>	208.3	210.4	206.2
1976-77 . . . .	221.5	234.8	241.2	<b>234.3</b>	235.4	234.8	230.3

COMMODITY PRICES

**Retail Prices of Food**

The next table shows the average retail prices of selected food items in Adelaide during recent years. Items included are those which are considered identical or sufficiently comparable from place to place to warrant publication of comparative prices.

**Average Retail Prices of Selected Food and Grocery Items, Adelaide**

Item	Unit	1974	1975	1976	1977
			Cents		
Bread, ordinary white (a) . . . . .	900 g	31.2	38.8	45.7	50.0
Self-raising flour . . . . .	1 kg	24.9	29.5	35.1	38.8
Rice . . . . .	500 g	21.1	24.9	30.2	33.4
Breakfast cereal, corn based . . . . .	500 g	(b) 47.9	55.6	59.7	64.1
Biscuits, dry . . . . .	225 g	(b) 27.8	31.7	34.9	38.3
Peaches, canned . . . . .	825 g	40.4	47.5	57.8	60.9
Peas, frozen . . . . .	500 g	n.a.	n.a.	56.5	61.0
Potatoes . . . . .	1 kg	34.0	19.5	34.3	29.4
Onions . . . . .	1 kg	38.3	35.6	43.4	41.0
Butter . . . . .	500 g	63.9	73.1	81.8	86.4
Cheese, processed . . . . .	250 g	35.1	44.2	47.1	50.1
Margarine, table, poly-unsaturated . . . . .	500 g	(b) 67.2	77.0	76.7	86.2
Eggs (55 grams) . . . . .	doz.	80.7	88.7	101.2	113.6
Milk; fresh bottled (a) . . . . .	600 ml	14.1	17.0	18.7	20.4
Bacon rashers, pre-packed . . . . .	250 g	80.2	92.5	107.0	113.9
Chicken, frozen . . . . .	1 kg	n.a.	n.a.	161.7	184.3
Sausages . . . . .	1 kg	107.5	98.1	106.6	113.3
Tea . . . . .	250 g	34.3	44.6	45.6	81.9
Coffee, instant, jar . . . . .	150 g	n.a.	n.a.	153.8	277.4
Sugar . . . . .	2 kg	45.7	48.9	53.0	59.6
Salmon, imported pink . . . . .	220 g	(b) 70.6	73.1	79.9	97.4
Tomato sauce . . . . .	300 ml	(b) 28.3	33.4	35.3	36.1
Prepared baby food . . . . .	125 g	(b) 12.3	13.3	15.5	16.7

## Average Retail Prices of Selected Food and Grocery Items, Adelaide (continued)

Item	Unit	1974	1975	1976	1977
Cents					
<b>Beef:</b>					
Rib (without bone) . . . . .	1 kg	188.8	168.5	188.3	211.4
Rump steak . . . . .	1 kg	304.4	266.9	307.9	351.0
Corned silverside . . . . .	1 kg	197.0	173.7	195.5	221.0
<b>Lamb:</b>					
Leg . . . . .	1 kg	174.0	177.7	198.7	237.2
Loin chops . . . . .	1 kg	192.2	198.4	228.1	280.2
Forequarter chops . . . . .	1 kg	174.6	172.1	197.4	240.8
<b>Pork:</b>					
Leg . . . . .	1 kg	235.5	275.9	321.5	339.7
Chops . . . . .	1 kg	240.3	277.5	325.4	345.3

(a) Delivered. (b) Average for six months July-December 1974.

A comparison of the prices of various food items in Adelaide with the prices of those same items in the other capital cities is given in the following table.

## Average Retail Prices of Selected Food and Grocery Items, Australian Capital Cities December 1977

Item	Unit	Sydney	Mel- bourne	Brisbane	Adelaide	Perth	Hobart	Canberra
Cents								
Bread, ordinary white loaf(a) . . . . .	900 g	47.0	47.0	44.4	51.0	48.0	(b)52.0	50.0
Self-raising flour . . . . .	1 kg	42.8	46.8	37.8	40.7	45.2	52.6	39.9
Breakfast cereal, corn based . . . . .	500 g	67.7	68.3	68.6	68.7	78.5	75.9	68.2
Biscuits, dry . . . . .	225 g	39.1	39.9	38.5	40.2	44.2	45.0	41.2
Rice . . . . .	250 g	101.5	99.7	91.6	98.5	98.7	107.8	105.2
Tea . . . . .	500 g	33.0	35.4	35.9	35.4	36.0	38.1	34.1
Jam, strawberry, jar . . . . .	500 g	73.0	70.3	79.8	80.3	84.0	75.2	76.6
Peaches, canned . . . . .	825 g	56.0	63.6	62.9	55.7	57.6	68.7	59.3
Potatoes . . . . .	1 kg	27.1	28.2	25.8	33.1	38.1	28.4	25.8
Onions . . . . .	1 kg	45.9	44.1	39.0	44.3	42.1	53.8	47.2
Butter . . . . .	500 g	92.5	86.6	89.1	87.8	87.4	92.2	94.3
Cheese, processed . . . . .	250 g	51.0	51.6	51.6	52.7	51.0	56.8	51.6
Margarine, table, poly-unsaturated . . . . .	500 g	85.2	91.9	83.9	92.2	80.4	89.3	84.2
Eggs (55 gram) . . . . .	doz.	100.6	106.1	112.8	115.3	113.5	126.9	99.3
Milk; fresh, bottled (a) . . . . .	600 ml	25.5	25.0	24.0	22.0	24.0	21.0	22.0
Bacon, rashers, pre-packed . . . . .	250 g	109.2	127.7	107.4	118.8	108.1	127.7	112.9
Sausages . . . . .	1 kg	99.0	122.4	114.9	114.9	132.1	142.6	121.7
Salmon, imported pink . . . . .	220 g	90.8	98.0	96.2	96.8	100.3	103.4	92.8
Tomato sauce . . . . .	300 ml	(c)64.2	(c)67.0	40.4	37.7	40.4	42.1	(c)65.6
Baked beans (in tomato sauce) . . . . .	450 g	32.8	35.8	34.6	33.1	33.1	36.8	34.0
Prepared baby food . . . . .	125 g	16.0	18.2	18.2	16.8	18.5	19.5	16.5
<b>Beef:</b>								
Rib (without bone) . . . . .	1 kg	184.1	184.5	180.8	205.0	172.0	184.3	200.0
Rump steak . . . . .	1 kg	319.9	311.1	283.5	365.3	369.5	359.6	395.3
Corned silverside . . . . .	1 kg	184.3	178.1	194.4	232.8	223.3	217.6	220.9
<b>Lamb:</b>								
Leg . . . . .	1 kg	214.1	189.2	252.2	237.7	277.8	240.3	266.5
Loin chops . . . . .	1 kg	218.5	216.7	258.2	290.3	283.7	235.9	296.5
Forequarter chops . . . . .	1 kg	169.1	150.6	240.1	238.1	255.7	203.0	207.0
<b>Pork:</b>								
Leg . . . . .	1 kg	312.4	289.2	279.8	341.5	330.3	340.6	322.3
Chops . . . . .	1 kg	282.9	292.8	285.7	347.7	307.3	333.3	312.6

(a) Delivered.

(b) Wrapped.

(c) 600 ml bottle.

### Other Commodity Prices

South Australian prices of agricultural products are shown in the table on page 400, and separate details of wheat, barley, wool and livestock are given under the appropriate headings in Part 9.1.

### PRICE CONTROL

Following the outbreak of the 1939-45 War the Commonwealth Government, acting under the authority of the National Security Act, established price control in Australia. A Commonwealth Prices Commissioner was appointed and given extensive powers in the regulation of prices. The National Security Act expired at the end of 1946 but temporary legislation provided for the continuation of price control until the end of 1948.

During 1948 the Commonwealth Government held a referendum seeking authority for permanent control over prices and rents. However, the proposal was rejected and the States agreed to assume responsibility for price control. In South Australia the necessary administrative structure was established by the Prices Act of 1948. Provision was made for the retention of existing Commonwealth Government price regulation orders altered in accordance with the State Act.

Under the provisions of the Prices Act, 1948-1978 the South Australian Department of Public and Consumer Affairs determines maximum prices for controlled goods and services and investigates complaints concerning excessive prices for goods and charges for services whether subject to price control or not. Special investigations are carried out on behalf of the Government by the Department which is responsible also for many aspects of consumer protection which are discussed in more detail on pages 165-6.

The Commonwealth Government held a further referendum in December 1973 seeking power to control the level of prices and incomes, but, as was the case in 1948, the proposal was rejected.

The Prices Justification Tribunal was established in August 1973 under the provisions of the *Prices Justification Act* 1973. The Tribunal is a fully discretionary body appointed under the Act to consider the justification for proposed price increases put to it by companies subject to the Act. It is not a price regulating authority.

The Tribunal consists of a Chairman and such number of other members as are from time to time appointed in accordance with the Act. The Office of the Prices Justification Tribunal comprises the staff required to assist the Tribunal in the performance of its functions, and consists of persons appointed or employed under the *Public Service Act* 1922.

Further information on the Prices Justification Tribunal is contained in its Annual Reports to Parliament and pages 312-13 of the *Official Year Book of Australia*, No. 61, 1975-1976.

### RENT CONTROL

Rent control was introduced in South Australia at the beginning of the 1939-45 War, with the passing of the Increase in Rent (War Restrictions) Act, 1939, which pegged rents at the level prevailing at 1 September 1939. In 1942 this Act was replaced by the Landlord and Tenant (Control of Rents) Act. Although providing the same benchmark, this Act allowed the South Australian Housing Trust to determine a variation in rent, upon application by either the landlord or tenant, or in certain cases on its own initiative. An appeal against such a determination could be made to a Local Court. From the beginning of 1943 to the end of 1962, 60 180 applications for rent determinations were dealt with by the Trust, of which 29 were varied by a Local Court.

Following an inquiry held in 1951 on the future of rent control, proportionate loadings were introduced to allow for increases in property costs since 1939. The gradual relaxation

of rent control was achieved through periodic extensions of these loadings and through the exclusion of long-term leases from the provisions of the Act.

At the end of 1962 the Landlord and Tenant (Control of Rents) Act was replaced by the Excessive Rents Act, which currently provides that the tenant of any premises, except where a lease of two years or more exists, may apply to a Local Court to determine whether the rent is excessive.

#### Sub-standard Housing

To regulate the rents for sub-standard housing the Housing Improvement Act, 1940-1977 vests in the South Australian Housing Trust power to declare a house sub-standard, and fix a maximum rent on it for such time as the declaration remains in force.

The Act provides that before the Trust declares any house to be sub-standard, it must notify the owner of its intention to do so and then allow a period of time for the necessary improvements to be made. If the house is subsequently found to remain in a sub-standard condition, a maximum rent fixation is made and then strictly controlled for such time as the house remains in a sub-standard classification.

In 1976-77 the Trust inspected 1 667 houses, commenced proceedings under the Housing Improvement Act on 676 of these properties, and fixed maximum rents on 434 houses.

## 10.4 TRANSPORT

A network of sea, rail, road and air services has been established between South Australia and the other States of Australia. Transport between the eastern States and Western Australia, and to a lesser extent Northern Territory, is made *via* South Australian services. Distances between Adelaide and other Australian capital cities, and Darwin, are shown in the following table.

**Distances Between Adelaide and Other Capital Cities**

Method of Travel	Canberra	Sydney	Melbourne	Brisbane	Perth	Hobart	Darwin
				Kilometres			
Road (a) . . .	1 203	1 418	746	2 136	2 721	..	3 224
Rail . . . . .	1 619	1 654	777	2 641	2 654	..	..
Sea . . . . .	..	1 787	954	2 741	(b) 2 552	1 430	(c) 5 893
Air . . . . .	988	1 196	660	1 967	2 216	1 283	2 766

(a) In some cases shorter but less popular routes are available.

(b) Fremantle. (c) Via Fremantle.

## TRANSPORT CONTROL AND OPERATIONS

### STATE TRANSPORT AUTHORITY

The State Transport Authority was constituted under the State Transport Authority Act, 1974, which became operative on 18 April 1974. The Authority consists of seven members including a full-time Chairman. The concept underlying the establishment of the Authority is that all Government owned public transport services throughout the State should be operated by a single authority.

The State Transport Authority Act, 1974 vested in the Authority power to co-ordinate all systems of public transport and powers of direction in respect of the South Australian Railways Commissioner, the Municipal Tramways Trust and the Transport Control Board. Provisions of the Act also required the Authority to recommend to the Minister the manner and means by which the Authority could assume and exercise the powers and functions of the above authorities.

The State Transport Authority Act Amendment Act was passed in November 1975, and provided for the dissolution of the statutory entity of the three authorities, and the assumption of their powers and functions by the State Transport Authority. The Act was proclaimed into force on 8 December 1975 at which time the functions of the Transport Control Board, South Australian Railways Commissioner and the Municipal Tramways Trust were assumed by the Authority.

### ROAD PASSENGER TRANSPORT CONTROL

The Transport Control Board, constituted under the Road and Railway Transport Act, 1930-1971, was concerned with the regulation and rationalisation of passenger transport services and in particular the co-ordination of road and railway passenger services.

In December 1975, the Road and Railway Transport Act was repealed and the Transport Control Board dissolved. The powers under that Act have now been assumed by the State Transport Authority. The regulatory functions previously carried out by the Transport Control Board are administered by the Regulation Division of the Authority.

Route service licences issued by the Authority specify the route or routes over which the licensee is permitted to operate vehicles. Route service licences have a currency of seven years, but many special licences are issued for periods up to twelve months.

At 30 June 1977, current route service licences numbered twenty-nine. During the year ending 30 June 1977, 114 limited radius licences, 212 schoolchildren licences and twelve workmen's licences were issued. Short-term licences (principally charter) issued during the year totalled 4 214.

### RAILWAYS

In Part 8.4, railways in South Australia were discussed under the headings of ownership and control, and standardisation of railway gauges. It was mentioned that both the South Australian and Commonwealth Governments operate railways in this State and that there are two privately-owned railways, from Iron Knob and Iron Baron to Whyalla, and from Coffin Bay to Port Lincoln; this section deals with the operation of the Rail Division of the State Transport Authority as a means of transport within, and to and from the State. Details are not available on the operations of the private railways.

#### **Transfer of Non-metropolitan Railways**

As from 1 July 1975, by virtue of the Railways (Transfer Agreement) Act, 1975 and the *Railways Agreement (South Australia) Act 1975*, the Australian National Railways Commission became entitled to a transfer of the State's non-metropolitan railways and services. In the interim period, up to and including 28 February 1978, the State Transport Authority—Rail Division administered, maintained and operated the non-metropolitan railways and services subject to compliance with any directions from the Commission. The railways transferred were generally those outside the Adelaide metropolitan area. However, some facilities (principally freight yards and workshops) within the Adelaide metropolitan area were also transferred.

The transfer agreement provides for trains operated by the State and National systems respectively, to operate as may be necessary on lines of the other system by a 'running rights' agreement, and the two Governments have acknowledged a long-term goal of physical separation of the two systems in the metropolitan area.

The transfer agreement also provides a number of safeguards aimed at ensuring that rail services throughout the State are maintained generally at a level acceptable to the State Government.

STATE TRANSPORT AUTHORITY—RAIL DIVISION

Financial Summary

Capital indebtedness (see definition on page 552) of the Rail Division (Metrorail) at 30 June 1977 totalled \$28 969 000. Operations for 1976-77 resulted in a deficit of \$51 113 000. Under the terms of the Railways Transfer Agreement, the State recouped from the Australian National Railways Commission \$30 663 000 on account of the estimated non-metropolitan railways deficit for 1976-77.

The determination of the metropolitan and non-metropolitan deficits are subject to clause 20 of the Railways Transfer Agreement which provides for:

- (1) the State during the interim period to receive the revenue from the operation of the non-metropolitan railways and services and bear the costs of their administration, maintenance and operation;
- (2) the Australian National Railways Commission to receive any surplus or bear any deficit from the operation of the non-metropolitan railways and services;
- (3) the costs of and revenue from operations common to both metropolitan and non-metropolitan railways and services to be apportioned on a basis to be agreed between the Commonwealth and the State Governments.

The following summary shows details of capital indebtedness, working expenses, and revenue for the four years to 1976-77.

State Transport Authority—Rail Division: Capital Indebtedness, Working Expenses and Revenue

Particulars	1973-74	1974-75	1975-76	1976-77
			\$'000	
Capital indebtedness .....	156 977	159 428	(a)21 736	28 969
Working expenses .....	61 134	80 980	91 955	104 279
Revenue .....	39 827	48 315	50 099	54 685
Deficit on operating .....	21 307	32 665	41 856	49 594
Debt charges .....	8 679	9 092	1 284	1 519
Total deficit for year .....	29 986	41 758	43 140	51 113
Less contributions from Consolidated Revenue .....	30 000	40 000	—	—
Net surplus (+) or deficit (-) .....	+14	-1 758	-43 140	-51 113

(a) Reduction due to the Commonwealth Government discharging or meeting liabilities of \$146 489 892 (including transfer of rollingstock) pending takeover of non-metropolitan assets.

*Working Expenses*

The cost of operating the Rail Division during 1976-77 was \$104 279 000 plus debt charges which amounted to \$1 519 000. The working expenses include the cost of administration, maintenance of permanent way, rollingstock maintenance and operation costs, salaries and wages of station staff, guards and conductors. A comparison of working expenses for the four years to 1976-77 is given in the following table.

**State Transport Authority—Rail Division, Working Expenses**

Expenses	1973-74	1974-75	1975-76	1976-77
Administration:			\$'000	
Salaries, wages, expenses, etc. ....	2 308	2 888	3 256	3 748
Payroll tax .....	—	2 559	2 810	3 115
Superannuation Act—Pensions .....	1 899	2 824	3 865	5 346
Way and works:				
Maintenance and superintendence of permanent way, etc. ....	13 948	17 324	19 612	23 641
Rollingstock:				
General superintendence .....	444	568	635	735
Maintenance of rollingstock .....	8 515	11 347	12 856	13 540
Motive power, lubrication, etc. ....	8 696	11 300	13 326	14 933
Transportation and traffic:				
General superintendence, station staff, guards, etc. ....	18 807	24 424	27 382	30 111
Miscellaneous:				
Refreshment services, road motors, etc. ...	2 420	3 099	3 459	3 827
Stores:				
Salaries, wages, expenses .....	1 230	1 582	1 563	1 737
Depreciation (a) .....	2 867	3 065	3 190	3 546
<b>Total .....</b>	<b>61 134</b>	<b>80 980</b>	<b>91 955</b>	<b>104 279</b>

(a) Additional depreciation is included in 'Maintenance of rollingstock' and other accounts to cover depreciation of workshop machinery. The amount for 1976-77 was \$34 860.

The average number of persons employed in operations and maintenance during 1976-77 was 7 385. In addition an average of 618 persons were employed on special work including standardisation programs.

*Debt Charges*

These charges to the Rail Division have reduced considerably following the takeover of the capital indebtedness of non-metropolitan assets by the Commonwealth Government. Net funds provided from State Loan Fund were \$27 059 000 at 30 June 1977 as against \$20 025 000 at 30 June 1976 and \$143 040 000 at 30 June 1975.

*Sources of Revenue*

For the five year period ending 30 June 1977 approximately 75 per cent of railways operational revenue was derived from carriage of freight and about 12 per cent from passenger traffic. Sources of revenue and the amounts received for the years 1972-73 to 1976-77 are shown in the following table.

Revenue from road motor services, amounting to \$401 000 in 1976-77, is included with revenue from passengers, parcels, mails, etc. and miscellaneous freight.



**State Transport Authority—Rail Division, Sources of Revenue**

Source	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Country passengers . . . . .	2 026	2 550	2 902	3 198	3 138
Suburban passengers . . . . .	2 285	2 417	2 736	2 960	3 207
Parcels, mails, etc. . . . .	774	836	1 018	1 189	1 193
General merchandise and miscellaneous freight . . . . .	15 074	17 226	18 455	20 968	25 233
Wool . . . . .	137	146	186	245	265
Wheat . . . . .	2 419	3 546	5 596	2 799	3 040
Barley and other grains . . . . .	584	1 136	2 224	2 407	2 094
Livestock . . . . .	1 063	1 013	1 284	1 689	2 704
Minerals . . . . .	7 106	6 751	8 389	8 181	8 220
Rents and miscellaneous . . . . .	2 353	2 398	3 324	3 972	2 970
Catering and trading services . . . . .	1 510	1 809	2 201	2 491	2 621
<b>Total . . . . .</b>	<b>35 332</b>	<b>39 827</b>	<b>48 315</b>	<b>50 099</b>	<b>54 685</b>

**Railway Operations**

*Train Kilometres Run and Track Open*

The average length of track open for traffic during 1976-77 was 3 894 kilometres (including 47 kilometres in New South Wales between Cockburn and Broken Hill). The last lines closed were the Eudunda-Morgan (56 kilometres) and the Sandergrove-Milang (13 kilometres) in 1969-70, and the Wanbi-Yinkanie (50 kilometres) in 1970-71, while the last line opened was a 3.7 kilometre extension from Lonsdale to Christie Downs in January 1976. Train kilometres run during 1976-77 totalled 10 741 998.

Train kilometres run was 10.9 million in 1942-43 but fell to 9.7 million in 1946-47. By 1952-53 train kilometres run had risen to 11.6 million but in recent years it has been at a lower level. In general both revenue and working expenses per train kilometre have increased in recent years with working expenses per train kilometre showing the more rapid increase.

The following table shows revenue and working expenses for the five years to 1976-77.

**State Transport Authority—Rail Division, Revenue and Working Expenses**

Year	Revenue	Working Expenses	Percentage of Working Expenses to Revenue	Train Kilometres Run	Revenue per Train Kilometre	Working Expenses per Train Kilometre
	\$'000	\$'000	Per cent	'000 km	\$	\$
1972-73 . . . . .	35 332	52 621	149	10 024	3.52	5.25
1973-74 . . . . .	39 827	61 134	153	10 313	3.86	5.93
1974-75 . . . . .	48 315	80 980	168	10 189	4.74	7.95
1975-76 . . . . .	50 099	91 955	184	10 304	4.86	8.92
1976-77 . . . . .	54 685	104 279	191	10 742	5.09	9.71

*Locomotives and Rollingstock*

Significant steps in the development of traction in the Rail Division have been the introduction, particularly in the early 1920s, of more powerful steam locomotives; the introduction of petrol-driven railcars from 1924 and their conversion to diesel operation from 1937; the change from steam to mainline diesel electric locomotives commencing in 1951; and the introduction of improved diesel railcars from 1955. The extent of the change from steam to diesel electric locomotives and from petrol to diesel railcars since 1955 is revealed in the following table.

**State Transport Authority—Rail Division, Locomotives and Rollingstock**  
(At 30 June in selected years)

Particulars	1955	1960	1965	1970	1977
	Number				
Locomotives:					
Steam .....	365	225	151	4	4
Diesel electric;					
Main line .....	12	30	41	54	60
Shunting and transfer .....		12	21	46	46
General purpose .....		10	35	45	45
Total .....	377	277	248	149	155
Railcars:					
Power;					
Diesel .....	—	118	134	124	125
Petrol .....	53	4	—	—	—
Non-power;					
Control-equipped .....	—	7	7	7	7
Trailer .....	28	52	58	40	37
Coaches .....	485	353	243	170	95
Interstate coaches .....	54	61	71	65	103
Goods and livestock wagons .....	8 895	8 000	7 962	7 694	7 164
Service wagons and vans .....	478	467	526	622	542

The Rail Division uses a great variety of specialised rollingstock, most of which is built at its Islington Workshops.

Consumption of locomotive and railcar fuels during selected years is shown in the following table.

**State Transport Authority—Rail Division, Locomotive Fuel Consumption**  
(Year ended 30 June in selected years)

Fuel	1955	1960	1965	1970	1977
	Tonnes				
Steam locomotives:					
Coal .....	203 076	80 127	20 739	1 935	283
Heavy oil .....	86 679	29 510	4 356	2 933	14
Diesel locomotives:					
Diesel oil .....	5 028	12 273	20 971	26 546	31 475
Railcars:					
Petrol .....	640	257	—	—	—
Diesel oil .....	827	8 306	8 665	8 444	8 985

*Passenger Traffic*

The number of passengers carried in 1942-43 was nearly 31 million persons, a substantial increase on the 17.6 million in 1939-40. Following a decline in the immediate post-war period, the number in 1949-50 settled at about the pre-war level, but since 1959-60, has declined to less than 13 million reflecting mainly the trend in suburban passenger traffic. Country passenger traffic has been generally declining since 1944-45.

**State Transport Authority—Rail Division, Passenger Journeys and Passenger Train Kilometres Run**

Year	No. of Passengers Carried		Passenger Train Kilometres Run		Average Kilometres Each Passenger Carried		Average Earnings per Passenger Kilometre	
	Country (a)	Suburban	Country (a)	Suburban	Country (a)	Suburban	Country (a)	Suburban
	'000	'000	'000	'000	No.	No.	Cents	Cents
1972-73	564	12 756	1 981	3 378	247.71	12.78	1.45	1.40
1973-74	683	12 914	2 017	3 393	253.42	12.70	1.47	1.47
1974-75	700	11 997	1 993	3 412	247.93	13.25	1.67	1.72
1975-76	639	12 033	2 027	3 640	247.81	14.14	2.02	1.74
1976-77	636	12 230	2 010	3 957	237.44	n.a.	2.08	n.a.

(a) Includes all interstate passengers.

Interstate passenger and freight services are operated in conjunction with interstate railways including the Australian National Railways—the Victorian Railways to Melbourne, Australian National and Western Australian Railways to Perth, the New South Wales Public Transport Commission to Sydney and Brisbane, and the Australian National Railways to Alice Springs. Sleeping accommodation and first and economy class travel are available for interstate journeys.

*Freight Traffic*

The railways by-law rate structure was determined by the need to develop the country and this led to the practice of charging what the traffic would bear—charges were higher for expensive commodities than for cheap ones. This type of rate helped to subsidise those people who lived in sparsely populated areas which were served by developmental railways. To meet increased competition from road transport in recent years it has been necessary to introduce special freight rates on some lines. The most recent general increase in intrastate freight rates became effective on 1 February 1977.

From 1 July 1968 a uniform classification of rates and conditions for the movement of inter-system goods traffic was adopted by the Australian National Railways and all State Railway authorities. However, some traffic on inter-system lines was excluded from the application of the uniform rates; such exclusions affect traffic between Rail Division stations, Central Australian Railways and Trans-Australian Railways stations. In these cases a combination of local, special or district and inter-system rates applies. The most recent general increase in inter-system goods rates became effective on 29 August 1977.

The tonnages of freight carried during 1976-77 were 4.2 per cent above the level of the previous year. Grain traffic decreased by 13 per cent due to an adverse season, but this was compensated by percentage increases in manures 43.2 per cent, steel 20.9 per cent, overseas containers (mainly between Adelaide and Melbourne) 6.1 per cent, other containers 51.3 per cent and livestock traffic 50 per cent.

The next table shows the freight tonnages carried by the Rail Division for the years 1972-73 to 1976-77.

## State Transport Authority—Rail Division, Freight Carried

Freight	1972-73	1973-74	1974-75	1975-76	1976-77
	'000 tonnes				
Wool .....	25	27	32	33	34
Wheat .....	564	775	1 008	543	498
Barley .....	142	242	410	429	352
Livestock .....	149	141	160	199	298
Minerals .....	1 676	1 806	1 934	1 707	1 721
General merchandise .....	3 263	3 664	3 239	3 273	3 539
<b>Total .....</b>	<b>5 820</b>	<b>6 655</b>	<b>6 783</b>	<b>6 184</b>	<b>6 442</b>
	'000 kilometres				
Goods and livestock train kilometres . . . .	4 666	4 903	4 783	4 637	4 775
	Cents				
Average earnings per tonne-kilometre . .	1.66	1.70	2.06	2.15	2.27

*Accident Casualties*

The table below shows casualties, other than railway employees, as recorded by the Rail Division for the years 1972-73 to 1976-77.

## State Transport Authority—Rail Division, Accident Casualties

Persons	1972-73	1973-74	1974-75	1975-76	1976-77
Killed .....	11	14	17	10	6
Injured .....	171	150	231	163	144

## TRAMWAY AND BUS SERVICES

The Municipal Tramways Trust was incorporated by Act of Parliament in 1906. The Trust's activities were regulated by the Municipal Tramways Trust Act, 1935-1975. The exclusive powers given to the Trust were assumed by the State Transport Authority under revisions to the Act which has been retitled Bus and Tramway Act, 1935-1975. The Trust is now the Bus and Tram Division of the State Transport Authority (STA).

Under the Act the State Treasurer is empowered to make grants to the Authority to enable it to meet the expenses incurred in the exercise of its functions. In March 1974, the Bus and Tram Division commenced acquiring the assets and liabilities of the licensed private bus operators in the metropolitan area.

**Historical Survey**

A brief historical summary of tramways and bus services was included on pages 512-4 of the *South Australian Year Book* 1970 under the headings 'Historical Survey' and 'Route Miles, Mileage Run and Passengers Carried'.

**Recent Developments**

Several initiatives affecting the metropolitan bus and tram services have been taken in recent years. They included development of a new regional bus depot at Morphettville

(officially opened in February 1977); placing of an order for 310 Volvo bus chassis and bodies—the first of these, featuring air cooling and turbo-charged engines for reduced noise and pollution was delivered in March 1977; integration of former private bus services with other Authority services; a program of erection of passenger shelters at bus stops and establishment of a new suburban ring route; new regional bus depots at Aldgate (officially opened in January 1978) and Lonsdale and a 1000 vehicle workshop at Regency Park.

In December 1973, a free bus service, the 'Bee-Line' Service was introduced and operates within city limits to improve distribution from existing transport terminals.

**Route Length, Kilometres Run and Passengers Carried**

The following two tables show the details of route length, kilometres run and passengers carried for the years 1972-73 to 1976-77. The details for electric trams refer to the Adelaide-Glenelg service, the only remaining tram service in this State.

**State Transport Authority-Bus and Tram Division, Route Length and Traffic Kilometres**

Year	Route Length at End of Year			Kilometres Run During Year		
	Electric Trams	Motor Buses	Total	Electric Trams	Motor Buses	Total
		Kilometres			'000	
1972-73 . . . . .	11	268	279	676	16 794	17 470
1973-74 (a) . . . . .	11	719	730	673	21 799	22 471
1974-75 . . . . .	11	754	765	676	30 819	31 495
1975-76 (b) . . . . .	11	820	832	710	32 513	33 223
1976-77 . . . . .	11	830	841	775	33 772	34 547

(a) Not comparable with previous years: includes details of licensed private services taken over in March 1974.

(b) Not comparable with previous years: includes details of licensed private services taken over in December 1975 and April 1976.

**State Transport Authority—Bus and Tram Division: Passengers, Traffic Kilometres and Revenue**

Year	Passengers Carried	Traffic Revenue	Traffic Kilometres	Average Fare	Traffic Revenue per Traffic Kilometre
	'000	\$'000	'000	Cents	Cents
1972-73 . . . . .	41 680	7 036	17 470	16.61	41.81
1973-74 (a) . . . . .	47 533	9 615	22 471	20.12	44.31
1974-75 . . . . .	58 298	12 711	31 495	21.29	42.63
1975-76 (b) . . . . .	58 336	13 459	33 223	22.27	43.51
1976-77 . . . . .	58 129	13 646	34 547	22.53	48.58

(a) Not comparable with previous years: includes details of licensed private services taken over in March 1974.

(b) Not comparable with previous years: includes details of licensed private services taken over in December 1975 and April 1976.

**Income and Expenditure**

A table showing capital indebtedness, income and working expenses, etc. for the last five years is given in Part 11.4 Public Finance—Public Corporations. Selected details for the five years to 1976-77 are shown in the following table.

**State Transport Authority—Bus and Tram Division, Income and Expenditure**

Year	Traffic Receipts	Sundry Receipts	Government Grants	Working Expenses	Interest on Loans	Net Deficit
\$'000						
1972-73	7036	269	1 330	8 269	406	41
1973-74 (a)	9615	343	2 250	11 735	469	—4
1974-75	12 711	716	5 900	18 951	874	(b) 10
1975-76 (c)	13 459	995	8 800	22 446	1 230	(d)—74
1976-77	13 646	3 135	12 040	27 711	1 781	(e) 268

(a) Not comparable with previous years: includes details of licensed private services taken over in March 1974.

(b) After receipt of Commonwealth Government grant of \$488 000.

(c) Not comparable with previous years: includes details of licensed private services taken over in December 1975 and April 1976.

(d) After receipt of Commonwealth Government grant of \$394 000 and State Department of Transport contribution for revenue projects of \$102 000.

(e) After receipt of Commonwealth Government grant of \$402 000.

At 30 June 1977 loan indebtedness amounted to \$21 931 000; these loans are secured by debentures issued to the Treasurer of South Australia.

**Working Expenses**

Working expenses of the Bus and Tram Division were \$1 244 000 in 1940-41 and had nearly doubled by 1946-47 when they were \$2 402 000. In 1976-77 working expenses reached a record high level of \$27 711 000. Details for the last five years are given in the following table.

**State Transport Authority—Bus and Tram Division, Working Expenses**

Working Expenses	1972-73	1973-74(a)	1974-75	1975-76(b)	1976-77
\$'000					
Traffic operations	4 441	6 398	10 759	12 677	15 085
Maintenance	1 485	1 903	3 103	4 090	6 016
Power for traffic	31	37	40	47	58
Fuel and oil for traffic	379	630	1 036	1 226	1 308
Highways contribution	123	171	274	307	320
Depreciation	676	862	1 146	1 221	1 292
Other expenses	1 135	1 734	2 593	2 878	3 631
Total	8 269	11 735	18 951	22 446	27 711
Cents					
Working expenses per traffic kilometre	47.33	52.22	60.17	67.56	80.21

(a) Not comparable with previous years: includes details of licensed private services taken over in March 1974.

(b) Not comparable with previous years: includes details of licensed private services taken over in December 1975 and April 1976.

The average number of persons employed by the Bus and Tram Division during 1976-77 was 1 837 (264 salaried and 1 573 wages staff): salaries and wages paid amounted to \$19 350 000 or 70 per cent of total working expenses.

**Accident Casualties**

The following casualties resulted from accidents which occurred during the last five years.

**State Transport Authority—Bus and Tram Division, Accident Casualties**

Year	Passengers		Employees		Total (Including Other)	
	Killed	Injured	Killed	Injured	Killed	Injured
1972-73	—	120	—	71	—	219
1973-74 (a)	—	120	—	111	—	265
1974-75	—	167	—	209	—	413
1975-76 (b)	—	239	—	332	—	646
1976-77	—	170	—	393	3	599

(a) Not comparable with previous years: includes details of licensed private services taken over in March 1974.

(b) Not comparable with previous years: includes details of licensed private services taken over in December 1975 and April 1976.

**Rollingstock**

The change from electric traction to diesel operation is reflected in the following table which shows details of rollingstock in selected years.

**State Transport Authority—Bus and Tram Division, Rollingstock and Seating Capacity At 30 June**

Particulars	1950 (a)	1955	1960	1965	1970	1977 (b)
<b>Rollingstock:</b>						
Electric trams	279	178	30	30	26	26
Motor buses	81	140	364	353	344	723
Trolley buses	61	91	56	—	—	—
<b>Total vehicles</b>	<b>421</b>	<b>409</b>	<b>450</b>	<b>383</b>	<b>370</b>	<b>749</b>
<b>Seating capacity:</b>						
Electric trams	14 280	10 147	1 908	1 908	1 664	1 664
Motor buses	3 998	5 268	14 428	14 112	14 234	32 006
Trolley buses	2 984	4 184	2 006	—	—	—
<b>Total seating</b>	<b>21 262</b>	<b>19 599</b>	<b>18 342</b>	<b>16 020</b>	<b>15 898</b>	<b>33 670</b>

(a) At 31 January.

(b) Not comparable with previous years: includes details of licensed private services taken over in March 1974, December 1975 and April 1976.

Under a three year program, completed late in 1972 at a cost of \$5.2 million, the Bus and Tram Division replaced its fleet of buses with vehicles designed for one-man operation. These vehicles have rear mounted engines, lower step height and two-way radio contact with the depot.

The vehicles obtained through takeover of the licensed private operators will be gradually replaced with the standard types.

#### METROPOLITAN PRIVATE MOTOR BUS SERVICES

The route length of private motor bus services licensed by the Bus and Tram Division increased from 74.70 kilometres in 1941 to 465.02 kilometres in 1972-73, while the number of passengers carried increased from 2.3 million to 16.6 million. A large part of the increase in the number of passengers carried occurred in the ten years from 1941 (2.3 million) to 1951 (10.7 million). The transfer of the licensed private bus operators to the Bus and Tram Division commenced in March 1974 and is reflected in the decreased figures for subsequent years.

#### Private Motor Buses, Metropolitan Services

Year	Route Length at End of Year	Kilometres Run	Passengers Carried	Rolling-stock at End of Year	Traffic Receipts (Gross)
	Kilometres	'000 km	'000	No.	\$'000
1972-73 .....	465	11 032	16 600	267	2 992
1973-74 .....	48	7 746	11 257	30	2 291
1974-75 .....	13	805	1 434	5	313
1975-76 .....	9	84	194	5	28
1976-77 .....	9	80	218	4	29

#### COUNTRY TOWN BUS SERVICES

Commencing in May 1975, the State Government offered financial assistance, through local government, to urban bus services outside of the metropolitan area. Under the new arrangement, financial responsibility for the provision of bus services is vested in the local government authority, but the State Government contributes two-thirds of the operating loss.

Councils have the option of acquiring local bus fleets, or arranging for a local bus proprietor to provide the bus service under contract. In the case of the contract system, the fare revenue is retained by the local government authority and the contractor is paid an agreed sum per kilometre to operate buses on routes and timetables determined by a three-man management committee. The committee consists in each case of an elected council representative, the Town Clerk or his deputy, and a representative of the State Government.

Contract services are operated in Port Pirie, Port Augusta, Port Lincoln and Mount Gambier. In Whyalla, the City Council has purchased the assets of the former bus proprietor, and since 13 October 1975 the bus service has been municipally owned and operated.

#### INTERSTATE AND COUNTRY SERVICES

Regular interstate coach services and special tours operate to all States. In addition, a network of coachlines operates on radial routes from Adelaide to all parts of the State. These services are provided by ten private companies, under licence to the State Transport Authority, and share a modern off-street terminal in Franklin Street, Adelaide.



Passenger services on all roads within the State are controlled by the State Transport Authority. Generally, pick-up and set-down rights on the routes are non-competitive with rail services or with other route service operations. The Authority also issues licences for coach tour and charter operations within the State.

### TAXI-CABS

The Metropolitan Taxi-Cab Act, 1956-1974, administered by the Metropolitan Taxi-Cab Board, is the governing legislation providing for the control of taxi-cabs within a 16 kilometre radius of the GPO, Adelaide and the District Councils of Stirling, Munno Para and Meadows, the Cities of Tea Tree Gully, Elizabeth, Salisbury and Noarlunga and the Municipality of Gawler. The Board is responsible for the granting of licences or permits to operate taxi-cabs, the allotment of vehicles to stands and the charging of permit fees.

Regulations under the Act provide for the examination of taxi-cabs: all taxi-cabs are examined for roadworthiness, and all meters are checked and tested twice a year on the Board's premises by mechanics employed by the Board. It is compulsory for taxis to be fitted with meters which record progressively the cost of each journey at rates prescribed from time to time. At September 1977 the rates were 50 cents for 'flag fall' and the first 160 metres, then 5 cents each additional 160 metres. The area in which these metered charges apply is determined by the Board and is known as the 'metered area'. Outside of this zone but within a radius of 40 kilometres from the GPO Adelaide, a 50 per cent loading applies. For journeys which extended beyond the 40-kilometre radius contract rates not to exceed 21 cents per outward and return kilometre are charged. From 8 p.m. to 6 a.m. Monday to Friday and from 8 p.m. Saturday to 6 a.m. Monday and on public holidays there is a 20 cent surcharge per journey.

Licences issued at 30 June 1977 include taxi-cabs, white plates (i.e. restricted) 250; green plates 595; hire cars 46; and funeral cars 11. Drivers' licences current totalled 3 099.

Taxi licence fees are \$50 a year and private hire licence fees are \$35. Revenue received during 1976-77 was \$42 363 from taxi licences, \$1 751 from hire car licences and \$13 651 from drivers' licences. Total revenue from all sources was \$198 339, and expenditure was \$214 054.

In areas not under the control of the Metropolitan Taxi-Cab Board, taxi licences are issued by local government authorities under the provisions of the Local Government Act.

### MOTOR VEHICLES

#### Control of Road Traffic

Legislation covering the registration of motor vehicles, licensing of drivers and third party insurance in South Australia is contained in the Motor Vehicles Act, 1959-1976.

The present legislation for the control of road traffic in South Australia is set out in the Road Traffic Act, 1961-1976 and the Motor Vehicles Act, 1959-1976.

#### Registration of Motor Vehicles

Under the provisions of the Motor Vehicles Act, 1959-1976 all motor vehicles, unless specifically exempted, must be registered with the Registrar of Motor Vehicles at the Motor Registration Division of the Department of Transport before being driven on any public road.

The Motor Vehicles Act defines a motor vehicle as:

- (a) a vehicle, tractor or mobile machine driven or propelled by a steam engine, internal combustion engine, electricity or any other power not being human or animal; or

(b) a trailer;

but does not include a vehicle run upon a railway or tramway.

Permits to use vehicles, without registration, between farm blocks may be granted by the Registrar. A 14-day permit to drive a motor vehicle pending registration may be issued, under certain circumstances, by a member of the police force stationed at a police station more than 40 kilometres from the GPO, Adelaide, except in those places where a branch of the Motor Registration Division is in operation.

Registration fees vary according to the power-mass (PM) of the vehicle; this is calculated by a formula which takes into account the diameter and number of the cylinders and the vehicle's weight in kilograms. A special formula applies for vehicles fitted with non-piston engines. Fees for trailers and caravans are based on unladen weight and vehicles fitted with solid rubber or metal tyres are subject to higher rates.

Motor vehicles used for certain purposes are registered without fee, e.g. vehicles owned by the Fire Brigades Board and other firefighting organisations, ambulances (for the use of which no charge is made), council vehicles used solely or mainly for the collection and transport of household refuse, etc. Registration at reduced rates is allowed for primary producers' commercial vehicles and tractors, prospectors' vehicles and for vehicles used wholly or mainly in outer areas. Reduced rates are available to incapacitated ex-serviceman also, and to some persons in receipt of Commonwealth Government pensions. Vehicles used solely for interstate trade can be registered for \$5 for a period of twelve months.

The Act provides for registered vehicles to carry number plates and for a registration label to be affixed to each registered vehicle. It also provides for the issue of general traders plates and limited traders plates.

Third party bodily injury insurance as a prerequisite to registration of a motor vehicle is discussed on page 503.

#### Motor Vehicles on Register

The following table shows the number of motor vehicles on the register at 30 June from 1973 to 1977.

Motor Vehicles on Register, South Australia<sup>(a)</sup>  
At 30 June

Type of Vehicle	1973	1974	1975	1976	1977
			'000		
Cars .....	362.9	382.8	413.3	429.3	445.0
Station wagons .....	64.6	66.5	70.0	71.8	74.0
Commercial vehicles .....	93.9	97.6	101.5	107.3	114.3
Motor cycles .....	25.7	30.7	32.5	32.6	31.0
Total on register .....	547.1	577.6	617.3	641.0	664.3
			Persons		
Population per vehicle	2.23	2.14	2.03	1.97	p1.92
			'000		
Tractors, plant, equipment .	7.4	7.7	7.7	7.8	8.0
Trailers and caravans .....	109.8	120.0	128.0	138.3	152.1
Traders plates .....	2.6	2.7	2.8	3.1	3.2

(a) Includes Commonwealth Government owned vehicles except defence services vehicles.

### New Motor Vehicle Registration

New motor vehicle registrations during the financial years 1972-73 to 1976-77 are shown in the following table.

New Motor Vehicle Registrations, South Australia<sup>(a)</sup>

Type of Vehicle	1972-73	1973-74	1974-75	1975-76	1976-77
Car .....	35 235	38 330	45 538	40 485	37 230
Station wagons .....	4 440	4 929	6 353	6 571	7 317
Light commercial type vehicles:					
Open (b) .....	3 437	3 581	4 390	4 074	3 638
Closed (c) .....	1 549	1 749	2 684	3 204	3 156
Trucks (d) .....	2 664	2 721	3 201	3 695	4 148
Other truck type vehicles (e)	88	45	22	36	366
Buses .....	273	221	237	342	315
Motor cycles .....	9 073	10 960	8 256	7 052	6 081
<b>Total .....</b>	<b>56 759</b>	<b>62 536</b>	<b>70 681</b>	<b>65 459</b>	<b>62 251</b>

(a) Includes Commonwealth Government owned vehicles except defence services vehicles. (b) Includes utilities and trucks with carrying capacity under 1 tonne. From 1 July 1976 includes only vehicles described as utilities on registration documents. (c) Includes panel vans and trucks with carrying capacity under 1 tonne and ambulances and hearses. From 1 July 1976 includes only vehicles described as panel vans on registration documents; ambulances and hearses are included with other truck type vehicles. (d) Includes utilities, panel vans and trucks with carrying capacity over 1 tonne. From 1 July 1976 includes only vehicles described as trucks on registration documents. (e) Includes those truck type vehicles not designed for freight carrying e.g. tow trucks and fire engines. From 1 July 1976 includes ambulances and hearses.

### Drivers' Licences

From 1 April 1973, the following classes of drivers' licences have applied in South Australia:

- Class 1: to drive (a) any motor car or (b) any motor vehicle, the weight of which (excluding the weight of any trailer) does not exceed 1 780 kilograms, except an articulated motor vehicle, a motor cycle or a motor omnibus;
- Class 2: to drive any motor vehicle except an articulated motor vehicle, a motor cycle or a motor omnibus;
- Class 3: to drive any motor vehicle except a motor cycle or a motor omnibus;
- Class 4: to drive a motor cycle;
- Class 5: to drive a motor omnibus.

A licence may be endorsed with more than one class number.

The Motor Vehicles Act provides that an applicant must apply for a permit to learn to drive a motor vehicle and will be issued with a learner's permit once he has passed a written examination on the rules of the road. The permit is for a period not exceeding three months during which time the holder is expected to undergo a practical test conducted by a Motor Registration Division examiner. If he passes the test he will be issued with a certificate stating the type and make of vehicle used and that he was capable of driving this class of motor vehicle. He may then apply to the Registrar for the appropriate licence.

Provision is also made for the testing of drivers suspected of being incompetent or suffering from a disease or disability which may impair their ability to drive, and for the suspension of their licences should they fail the test. Persons who will reach the age of 70



### Revenue from Registrations and Licences

Revenue from registration fees and drivers' and riders' licence fees totalled \$45 836 000 in 1976-77. These fees are paid into Consolidated Revenue Account; but after deductions have been made for sinking fund and interest on loans raised for roads and bridges, and the administration expenses of the Highways Department and Motor Registration Division of the Department of Transport, the balance is paid into the Highways Fund.

### Third Party Insurance

Under the Motor Vehicles Act, 1959-1976 every motor vehicle driven on a public road, unless specifically exempted, must be covered by an insurance policy. This policy insures the owner of the motor vehicle and any other person who at any time drives the vehicle in respect of all liability for negligence that may be incurred in respect of the death of, or bodily injury to, any person caused by, or arising out of the use of the vehicle in any part of Australia.

Insurance must be effected with the State Government Insurance Commission, which is now the only approved third party insurer. Liabilities of the insurer, set out in the Motor Vehicles Act, include the liability to pay for emergency treatment and hospital treatment to a person injured (including fatally injured) by or arising out of the use of an insured motor vehicle.

Where the driver of a motor vehicle has caused death or bodily injury in the use of that vehicle and the identity of the vehicle cannot be ascertained, then a person who could have obtained a judgment against the driver may give notice to the Minister of Transport and recover by action against a 'nominal defendant' named by the Minister of Transport. Payment by the nominal defendant is out of money contributed by the Commission under a scheme administered by the Minister of Transport.

The Minister of Transport appoints a 'nominal defendant' where a claim is made by a person in respect of death or bodily injury caused by negligence in the use of an uninsured motor vehicle on a road. Payments made by the 'nominal defendant' are recoverable from the driver of the motor vehicle or any person liable for the negligence of that driver.

An injured person may claim against his or her spouse where the spouse is an insured person and has caused that person bodily injury by negligence in the use of a motor vehicle.

A committee appointed by the Governor on the recommendation of the Minister of Transport having all the powers of a royal commission periodically inquires into and determines what premiums for third party insurance are fair and reasonable.

From 31 May 1978, premiums for private and business cars in metropolitan and country areas were increased by \$9 to \$98. Premiums for goods-carrying vehicles in the metropolitan area were increased by \$11 to \$117 while those in country areas were increased by \$7 to \$76. Premiums for primary producers' trucks in the metropolitan area were increased by \$4 to \$42 and those in country areas were increased by \$2 to \$21. Premiums for taxis in the metropolitan area were increased by \$34 to \$378. Premiums for omnibuses in the metropolitan area were increased by \$31 to \$344 while those in country areas were increased by \$6 to \$62. Premiums for omnibuses not used for hire, fare or reward, in the metropolitan area were increased by \$9 to \$103 while those in country areas were increased by \$5 to \$55. Premiums for other miscellaneous vehicles such as ambulances, tow trucks, mobile cranes, hearses etc., in the metropolitan area were increased by \$6 to \$69 and those in country areas were increased by \$3 to \$28. Premiums for motor cycles with an engine capacity exceeding 250 cc in the metropolitan area were increased by \$12 to \$131 and those in the country areas were unchanged at \$55. Premiums for motor cycles with an engine capacity not exceeding 250 cc in the metropolitan area were increased by \$4 to \$48 while those in the country areas were increased by \$2 to \$17.

### Census of Motor Vehicles

A census of motor vehicles on the register in Australia at 30 September 1976 was completed during 1977: details relating to South Australia are shown in the bulletin *Motor Vehicle Census, 30 September 1976* (Catalogue No. 9301.4).

The following table classifies motor vehicles on register by type of vehicle and year of model at 30 September 1976.

**Motor Vehicles on Register: Type of Vehicle and Year of Model, South Australia  
30 September 1976<sup>(a)</sup>**

Year of Model	Type of Vehicle							Total (b)
	Motor Cars	Station Wagons	Utilities	Panel Vans	Trucks	Other Truck Type Vehicles	Buses	
	'000							
Before 1955	4.6	(c)	1.0	0.1	3.4	0.3	(c)	9.4
1955-1959 ...	13.8	1.1	2.0	0.6	3.3	0.3	0.2	21.3
1960-1964 ...	55.2	14.3	5.9	2.2	6.3	0.5	0.4	84.9
1965 .....	19.9	4.7	2.0	0.7	1.8	0.1	0.1	29.4
1966 .....	19.0	4.0	2.2	0.7	1.7	0.1	0.1	27.8
1967 .....	23.1	4.8	2.5	0.9	1.6	0.1	0.1	33.1
1968 .....	27.1	4.4	2.5	0.9	2.0	0.2	0.1	37.1
1969 .....	30.1	4.6	2.7	0.9	2.4	0.2	0.3	41.2
1970 .....	32.4	4.6	2.8	1.1	2.4	0.2	0.2	43.6
1971 .....	32.2	4.3	2.3	1.2	2.1	0.2	0.3	42.7
1972 .....	31.0	4.2	2.7	1.3	2.2	0.3	0.3	41.8
1973 .....	37.0	4.8	3.2	1.7	3.0	0.3	0.2	50.2
1974 .....	39.6	5.7	3.7	2.1	3.0	0.4	0.3	54.9
1975 .....	41.1	6.0	3.3	2.7	3.2	0.5	0.3	57.3
1976 .....	30.4	5.4	2.8	2.4	3.0	0.3	0.3	44.5
<b>Total (d)</b>	<b>436.5</b>	<b>72.7</b>	<b>41.4</b>	<b>19.6</b>	<b>41.4</b>	<b>4.1</b>	<b>3.2</b>	<b>650.7</b>

(a) Includes Commonwealth Government owned vehicles except defence services vehicles.

(b) Includes 31 750 motor cycles.

(c) Less than 100.

(d) Includes vehicles for which year of model is unknown.

### Motor Vehicle Usage

In September 1971, a sample survey of motor vehicle usage during the year ended 30 September 1971 was conducted throughout Australia. Details relating to South Australia appear in the *South Australian Year Book 1975*, pages 561-2. A further sample survey was conducted in respect of the year ended 30 September 1976.

### Road Traffic Board

The Road Traffic Board of South Australia, set up in 1960 under the provisions of the Road Traffic Board Act, 1960, is now constituted under the Road Traffic Act, 1961-1976; its functions are to:

- (1) make recommendations to the Minister on roads and traffic generally, on the use of traffic control devices and other measures to be taken to prevent road traffic accidents;

- (2) promote uniformity in the design and use of traffic control devices;
- (3) conduct research and collect statistics relating to road traffic accidents and other traffic problems;
- (4) disseminate information and advice on road safety and traffic laws and regulations;
- (5) investigate and report on proposals for alterations of and additions to traffic laws and regulations.

### Road Safety

Some recent moves towards greater road safety were detailed on pages 514-5 of the *South Australian Year Book 1973*. These mainly related to the operations of the new Road Safety Instruction Centre and the points demerit scheme.

The latter scheme has been in operation since 29 April 1971. In 1976 warning notices were sent to 15 157 drivers who had accumulated six or more demerit points and 2 651 drivers with twelve or more demerit points had their driving licences suspended.

Regulations under the Road Traffic Act require that any modification to a motor vehicle with a gross vehicle mass less than 4.5 tonnes (motor cycles excepted) must meet certain standards and that approval of the Road Traffic Board is necessary before certain types of modifications can be made.

All motor vehicles manufactured on or after 1 May 1971, must have affixed a compliance plate showing that the vehicle has been approved by the Australian Motor Vehicle Certification Board in regard to compliance with Australian Design Rules for Motor Vehicle Safety applicable to the year of manufacture. Road Traffic Board exemption from this requirement is limited to immigrants or local residents returning from overseas with a vehicle they wish to register privately in this State.

Following an amendment to the Road Traffic Act, a different interpretation of 'STOP' signs became operative on 1 March 1975. Under the new legislation, a driver facing a 'STOP' sign must give way to all traffic whether it is coming from the left or from the right. Previously, drivers had to give way only to the traffic from the right. The new legislation conforms with the National Traffic Code. Similar legislation is in force in most States.

In July 1975, a system of 'priority' roads was introduced in the State. Initially the main arterial roads in the Metropolitan area were proclaimed 'priority' roads; this will be progressively extended to national highways and rural arterial traffic routes.

'STOP' and 'GIVE WAY' signs are used to control side street traffic. A heavy broken white line across the mouth of the side street warns the motorists that the arterial road traffic has priority over traffic entering from the left or right.

The Road Traffic Act now requires a seat belt to be worn by the driver and passenger of a motor vehicle where seat belts are fitted irrespective of the year of manufacture of the vehicle. An amendment to the Act, which came into operation on 1 March 1977, greatly strengthened the penalty provisions of the Act. The penalties are classified into (a) general penalty offences which included the majority of offences and carry a maximum penalty of \$300 and (b) special penalty offences which deal with the more serious offences e.g. a driver convicted on a drink-driving offence for the first time can face the following charges (i) disqualification from holding a driver's licence for not less than six months and (ii) a fine of not less than \$300 and not more than \$600 or imprisonment for not more than three months.

### Road Traffic Accidents

Statistics of road traffic accidents are compiled from reports made to members of the South Australian Police Department by persons involved in such accidents. Section 43 of the Road Traffic Act sets out the obligations of the driver of a vehicle involved in an accident—he must stop his vehicle at once, render any assistance of which he is capable to anyone injured in the accident, state his name and address if requested to any person having reasonable grounds for such request, and report the accident to the Police as soon as possible, or at least within twenty-four hours of the accident. However, it is a defence against a charge relating to non-reporting of an accident if a defendant can prove either that he did not know that an accident occurred or that the only damage or injury resulting from the accident was to property and that a fair estimate of the damage did not exceed \$100.

For the purpose of these statistics, a road traffic accident is defined as an accident which occurs because of the presence of a vehicle on a road (or other public thoroughfare, e.g. public car park, beach) and which involves property damage exceeding \$100 or casualty; a casualty occurring if the accident resulted in:

- (1) the death of any person within a period of thirty days of the accident, or
- (2) bodily injury to any person to an extent requiring surgical or medical treatment.

With the introduction of a more comprehensive accident report form on 1 October 1967, statistics have become available as a result of a joint effort by the South Australian Police Department, the Road Traffic Board of South Australia and the Australian Bureau of Statistics. Before this date, the South Australian Police Department was the sole authority preparing statistics of road traffic accidents.

The following table shows summary details of road traffic accidents for the years 1972 to 1976. During 1976 the total number of recorded road traffic accidents increased by 2.4 per cent (from 44 964 in 1975 to 46 041 in 1976). The number of accidents which resulted in casualties decreased by about 8 per cent (from 8 793 in 1975 to 8 090 in 1976).

### Road Traffic Accidents, South Australia

Year	Total Accidents Recorded	Accidents Involving Casualties	Persons Killed	Persons Injured	Rate per 100 000 Motor Vehicles on Register (a)			Rate per 100 000 of Mean Population		
					Total Accidents Recorded	Persons Killed	Persons Injured	Total Accidents Recorded	Persons Killed	Persons Injured
1972.....	29 569	8 116	312	10 997	5 689	60	2 116	2 855	26	925
1973.....	33 960	9 267	329	12 625	6 167	60	2 293	3 176	27	1 050
1974.....	39 633	9 469	382	12 725	6 808	66	2 186	3 247	31	1 042
1975.....	44 964	8 793	339	12 020	7 297	55	1 951	3 633	27	971
1976.....	46 041	8 090	307	11 082	7 180	48	1 728	3 649	24	878

(a) 'Motor vehicles on register' is the mean number for each year; includes Commonwealth Government owned vehicles except defence services vehicles; excludes road tractors and trailers.

The likelihood of sustaining serious injury when involved in an accident is more than eleven times higher for motor cycle riders than for drivers of motor vehicles: 57 per cent of motor cycle riders involved in accidents received medical or hospital treatment compared with 5 per cent of drivers of other vehicles.

The following table shows casualties by type of road user for each of the last five years. In each of these years more motor vehicle drivers were killed or injured than any other type of road user.



## Road Traffic Accidents: Casualties, South Australia

Year	Drivers of Motor Vehicles	Motor Cyclists	Pedal Cyclists	Pass-engers	Pedes-trians	All Other	Total
PERSONS KILLED							
1972.....	120	28	12	88	64	—	312
1973.....	135	23	9	99	63	—	329
1974.....	151	46	17	110	58	—	382
1975.....	136	30	14	98	61	—	339
1976.....	116	41	9	86	55	—	307
PERSONS INJURED							
1972.....	4 267	1 313	524	3 998	885	10	10 997
1973.....	4 906	1 736	564	4 499	914	6	12 625
1974.....	4 946	1 820	541	4 392	1 021	5	12 725
1975.....	4 663	1 738	529	4 209	876	5	12 020
1976.....	4 249	1 622	566	3 846	792	7	11 082

In the following table, the types of road users killed and injured are shown according to age groups for 1976.

Road Traffic Accidents: Age Groups of Casualties, South Australia  
1976

Age Group of Casualty (years)	Drivers of Motor Vehicles	Motor Cyclists	Pedal Cyclists	Pass-engers	Pedes-trians	All Other	Total
PERSONS KILLED							
Under 5 .....	—	—	—	5	5	—	10
5-16 .....	—	2	6	14	9	—	31
17-20 .....	22	18	—	18	1	—	59
21-29 .....	27	15	1	13	—	—	56
30-39 .....	15	2	—	7	3	—	27
40-49 .....	12	1	—	3	1	—	17
50-59 .....	15	1	1	8	13	—	38
60 and over.....	25	2	1	18	23	—	69
Total .....	116	41	9	86	55	—	307
PERSONS INJURED							
Under 5 .....	—	—	3	222	53	—	278
5-16 .....	156	175	309	862	251	—	1 753
17-20 .....	906	695	54	711	61	3	2 430
21-29 .....	1 133	439	44	531	66	—	2 213
30-39 .....	611	86	16	188	38	2	941
40-49 .....	438	40	29	182	59	—	748
50-59 .....	341	21	38	185	56	1	642
60 and over.....	281	11	30	216	116	—	654
Not stated.....	383	155	43	749	92	1	1 423
Total .....	4 249	1 622	566	3 846	792	7	11 082

Drivers (including motor cyclists) under twenty-one years of age, representing only 12 per cent of licence holders at 30 June 1976, accounted for 21 per cent of drivers involved in accidents, 27 per cent of drivers killed and 33 per cent of drivers injured during 1976. For

drivers aged twenty-one to twenty-four years involvements were 12 per cent, deaths 15 per cent and injuries 16 per cent while their representation in the driving population was 11 per cent.

Pedestrians sixty years and over accounted for 16 per cent of pedestrians involved, 15 per cent of pedestrians injured and 42 per cent of pedestrians killed.

Details of road traffic accidents for 1976 according to time and day of occurrence are shown in the next table. More accidents occurred on Fridays (8 307 accidents) and Saturdays (7 558) than on other days of the week and more accidents occurred between 4 p.m. and 6 p.m. than during any other two-hour period. More accidents occurred between 4 p.m. and 6 p.m. on Fridays than on other days in that period and more deaths resulted from accidents occurring on Fridays (62) and Saturdays (62).

### Road Traffic Accidents: Day of Week and Time of Occurrence, South Australia 1976

Time of Occurrence	Monday	Tuesday	Wednes- day	Thursday	Friday	Saturday	Sunday	Total
<b>TOTAL ACCIDENTS</b>								
After:      Until:								
Midnight   2 a.m.	82	82	104	128	178	596	643	1 813
2 a.m.     4 a.m.	24	29	32	49	48	144	194	520
4 a.m.     6 a.m.	25	24	26	26	23	53	71	248
6 a.m.     8 a.m.	494	456	468	451	456	140	68	2 533
8 a.m.     10 a.m.	784	725	733	786	748	658	191	4 625
10 a.m.    12 noon	646	649	663	660	757	1 318	508	5 201
12 noon    2 p.m.	651	653	702	729	814	817	609	4 975
2 p.m.     4 p.m.	817	839	891	896	1 139	764	758	6 104
4 p.m.     6 p.m.	1 402	1 331	1 508	1 625	1 950	1 039	866	9 721
6 p.m.     8 p.m.	580	575	592	713	1 001	1 012	644	5 117
8 p.m.     10 p.m.	317	300	338	423	576	505	328	2 787
10 p.m.    Midnight	212	227	273	344	617	512	212	2 397
Total .....	6 034	5 890	6 330	6 830	8 307	7 558	5 092	46 041
<b>PERSONS KILLED</b>								
After:      Until:								
Midnight   2 a.m.	—	1	—	1	2	7	11	24
2 a.m.     4 a.m.	—	1	—	1	—	1	3	6
4 a.m.     6 a.m.	—	—	—	—	1	1	2	4
6 a.m.     8 a.m.	4	3	1	3	—	2	1	14
8 a.m.     10 a.m.	4	4	4	1	1	1	1	16
10 a.m.    12 noon	3	1	5	3	1	3	5	21
12 noon    2 p.m.	2	3	—	5	2	11	2	25
2 p.m.     4 p.m.	1	2	5	1	5	10	6	30
4 p.m.     6 p.m.	3	7	8	1	13	6	7	45
6 p.m.     8 p.m.	7	6	4	9	11	9	5	51
8 p.m.     10 p.m.	1	5	6	5	8	7	1	33
10 p.m.    Midnight	6	2	3	5	18	4	—	38
Total .....	33	35	36	35	62	62	44	307
<b>PERSONS INJURED</b>								
After:      Until:								
Midnight   2 a.m.	13	45	43	59	67	222	260	709
2 a.m.     4 a.m.	1	11	15	21	25	55	91	219
4 a.m.     6 a.m.	5	7	8	7	8	21	30	86
6 a.m.     8 a.m.	98	97	112	105	102	49	30	593
8 a.m.     10 a.m.	136	123	125	151	105	114	37	791
10 a.m.    12 noon	96	118	99	111	90	270	138	922
12 noon    2 p.m.	128	127	108	147	154	190	182	1 036
2 p.m.     4 p.m.	182	151	174	188	224	241	236	1 396
4 p.m.     6 p.m.	272	277	306	293	348	310	255	2 061
6 p.m.     8 p.m.	208	166	174	198	249	286	222	1 503
8 p.m.     10 p.m.	95	112	94	138	177	155	132	903
10 p.m.    Midnight	84	72	93	111	225	189	89	863
Total .....	1 318	1 306	1 351	1 529	1 774	2 102	1 702	11 082

Although more than two-thirds of all accidents occurred between 6 a.m. and 6 p.m. the severity of accidents, judged on the basis of death and injury rates, was considerably greater during the 'night hours', as can be seen from the following table. Both deaths and injuries, expressed as a proportion of accidents occurring, were significantly higher during each two-hour 'night' period than for any two-hour period between 6 a.m. and 6 p.m.

**Accidents and Casualties: Time of Day, Fatality and Injury Rates  
South Australia, 1976**

Time of Occurrence	Accidents Occurring	Persons Killed	Persons Injured	Persons Killed Per 100 Accidents Occurring	Persons Injured Per 100 Accidents Occurring
After:            Until:					
Midnight        2 a.m.	1 813	24	709	1.3	39
2 a.m.          4 a.m.	520	6	219	1.2	42
4 a.m.          6 a.m.	248	4	86	1.6	35
6 a.m.          8 a.m.	2 533	14	593	0.6	23
8 a.m.          10 a.m.	4 625	16	791	0.3	17
10 a.m.        12 noon	5 201	21	922	0.4	18
12 noon        2 p.m.	4 975	25	1 036	0.5	21
2 p.m.         4 p.m.	6 104	30	1 396	0.5	23
4 p.m.         6 p.m.	9 721	45	2 061	0.5	21
6 p.m.         8 p.m.	5 117	51	1 503	1.0	29
8 p.m.         10 p.m.	2 787	33	903	1.2	32
10 p.m.        Midnight	2 397	38	863	1.6	36
Total .....	46 041	307	11 082	0.7	24

During 1976 there were 22 083 accidents at intersections (48 per cent of accidents reported) and approximately one-half of the total number of injuries occurred at intersections. However, of the 307 road deaths, 47 per cent were on straight roads compared with 29 per cent at intersections: a further 19 per cent of deaths occurred on bends or curves.

**Road Traffic Accidents: Features of Roadways on which Accidents Occurred  
South Australia, 1976**

Features of Roadway	Total Accidents Reported	Accidents Involving Casualties	Persons Killed	Persons Injured
Intersection:				
Controlled .....	10 271	1 557	21	2 268
Uncontrolled .....	11 812	2 472	69	3 451
Other than intersections:				
Straight road .....	17 858	3 006	144	3 879
Bend or curve .....	2 558	738	57	1 062
Railway level crossing:				
Controlled .....	145	16	2	20
Uncontrolled .....	61	20	2	24
Other location .....	3 336	281	12	378
Total .....	46 041	8 090	307	11 082

The following table shows the nature of accidents which occurred in 1976. Collisions between vehicles accounted for 73 per cent of all accidents and 42 per cent of deaths, while vehicles overturning or leaving the road and vehicles colliding with pedestrians accounted for 4 per cent and 2 per cent of all accidents respectively, and 13 per cent and 18 per cent of deaths.

**Road Traffic Accidents: Nature, South Australia, 1976**

Nature of Accidents	Total Accidents Reported	Accidents Involving Casualties	Persons Killed	Persons Injured
<b>Collisions between vehicles (a):</b>				
Head on .....	704	316	40	630
Rear end .....	12 717	1 223	10	1 684
Right angles .....	13 509	2 767	62	4 026
Other .....	6 579	570	17	731
<b>Vehicles:</b>				
Overturning or leaving road (b) .....	1 897	874	40	1 168
Colliding with;				
Fixed object .....	3 838	1 075	69	1 477
Parked vehicle .....	5 259	329	8	408
Pedestrian .....	816	802	55	801
Other .....	532	62	1	82
Passenger accidents .....	49	49	5	47
Other .....	141	23	—	28
<b>Total .....</b>	<b>46 041</b>	<b>8 090</b>	<b>307</b>	<b>11 082</b>

(a) 'Vehicles' includes motor vehicles, motor cycles, pedal cycles, trains, trams, etc.

(b) Vehicles leaving road and then colliding are shown in the four categories below.

The following table shows the age group and sex of persons holding drivers licences and permits at 30 June 1976 and involvements in accidents during 1976 of drivers and riders within the same classifications. In this table figures for involvements relate to accidents occurring in South Australia whereas licence and permit holders are those licences, etc., issued in South Australia, and the licences on issue at 30 June are only an approximation of the average for the year.

It should be noted in particular that these figures do not measure exposure to risk: for example they take no account of distances driven, times of day into which driving may be concentrated or traffic conditions during those times.

The following additional limitations should be observed when interpreting the figures:

- (i) All figures include permit holders; the accident involvement of permit holders, who are permitted to drive a vehicle only when accompanied by a fully licensed driver, appears, from an examination of the relevant data, to be significantly lower than that of fully licensed drivers. At 30 June 1976, there were 12 156 permit holders; of these 4 773 or approximately one-third were aged 16 years and 8 802 or just over two-thirds of the total were aged 20 years or less: thus if permit holders and their involvements in accidents were excluded from the table, it could be expected that the involvement rates in the lower age groups would be higher than those shown.
- (ii) The number of involvements with ages not stated is high; and their age distribution, if known, might be different from that of known cases.

**Road Traffic Accidents: Age and Sex of Licensed Drivers and of Drivers and Riders Involved in Accidents, South Australia <sup>(a)</sup>**  
1976

Age (Years)	Licensed Drivers Riders and Permit Holders at 30 June 1976		Accident Involvement of Drivers and Riders <sup>(b)</sup>		Accident Involvement Rate per 100 Licensed Drivers and Riders	
	Males	Females	Males	Females	Males	Females
Under 20 .....	39 142	24 529	11 692	2 714	29.9	11.1
20-24 .....	52 709	39 211	10 972	3 252	20.8	8.3
25-29 .....	52 923	40 721	7 642	2 635	14.4	6.5
30-34 .....	42 240	32 425	5 066	2 123	12.0	6.5
35-39 .....	35 485	25 559	4 223	1 679	11.9	6.6
40-44 .....	32 304	20 916	3 782	1 304	11.7	6.2
45-49 .....	35 509	21 227	4 040	1 141	11.4	5.4
50-54 .....	33 561	19 521	3 462	1 055	10.3	5.4
55-59 .....	27 017	14 688	2 727	695	10.1	4.7
60-64 .....	22 896	11 203	2 090	526	9.1	4.7
65-69 .....	15 759	6 904	1 225	314	7.8	4.5
70-74 .....	9 066	3 052	724	180	8.0	5.9
75-79 .....	4 285	1 369	382	97	8.9	7.1
80 and over .....	2 044	486	183	45	9.0	9.3
Not stated .....	—	—	8 971	2 145	—	—
<b>Total .....</b>	<b>404 940</b>	<b>261 811</b>	<b>67 181</b>	<b>19 905</b>	<b>16.6</b>	<b>7.6</b>

(a) Includes both licensed riders and permit holders.

(b) Drivers and riders involved in more than one accident during the year are included once for each accident.

## SHIPPING

### Control of Shipping

The Commonwealth Parliament is empowered under the Constitution to make laws in respect of trade and commerce with other countries and among the States.

Navigation and shipping are regulated under the *Navigation Act 1912* and the provisions of the Act apply to ships registered in Australia (except those engaged solely in the domestic trade of any one State) and other British ships whose first port of clearance and whose port of destination are within Australia. Other shipping Acts under the trade and commerce power are the *Sea-Carriage of Goods Act 1924*, the *Seamen's Compensation Act 1911*, the *Seamen's War Pensions and Allowance Act 1940*, the *Australian Coastal Shipping Commission Act 1966*, the *Australian Coastal Shipping Agreement Act 1956* and the *Stevedoring Industry Act 1956*.

Shipping in South Australia is controlled by the *Navigation Act 1912* and, where this does not apply, by the *Harbors Act, 1936-1974* and the *Marine Act, 1936-1976*. Both of the State Acts are administered by the Department of Marine and Harbors.

### Registration of Ships

Registration of ships in Australia is in accordance with the *Merchant Shipping Act 1894* of the Imperial Parliament, under sections which apply to the United Kingdom and all British dominions. Registration is not compulsory for vessels of less than 15 net tons engaged in river or coastal trade or for larger vessels not engaged in trade. Yachts and

small trading vessels may be registered at the request of the owners as registration facilitates the sale or mortgage of these vessels. An annual review of the register is carried out but some vessels whose present ownership or use cannot be traced, are retained on the register in the absence of any positive justification for their removal.

Four different measures of tonnage (gross, net, displacement, or deadweight) may be applied to a vessel. Gross tonnage is the total enclosed cubic capacity of the ship on a basis of 2.83 cubic metres a ton; net tonnage is the cubic capacity available for cargo in terms of 2.83 cubic metres a ton; displacement tonnage is the weight of water displaced by a ship; deadweight tonnage is the total weight of fuel, water, stores and cargo that a ship will carry. Passenger ships are commonly rated by the gross tonnage, cargo ships by their net tonnage, warships by their displacement tonnage and oil tankers by their deadweight tonnage.

The following table shows the number of vessels on the South Australian Register at 31 December 1977.

### Shipping, Vessels on South Australian Register At 31 December 1977

Net Tonnage	Steam and Motor			Sailing (Including Fitted with Auxiliary Power)			Barges, Hulks, Dredges, Etc. Not Self-propelled		
	Vessels	Gross Tonnage	Net Tonnage	Vessels	Gross Tonnage	Net Tonnage	Vessels	Gross Tonnage	Net Tonnage
Under 50 .....	97	5 115	2 108	119	1 997	1 625	—	—	—
50-99 .....	36	3 842	2 566	5	701	444	1	83	75
100-99 .....	11	2 579	1 758	2	678	313	1	179	179
200-499 .....	—	—	—	—	—	—	1	319	319
500-999 .....	2	4 237	1 543	—	—	—	1	762	762
1 000-2 999 .....	1	4 174	1 327	—	—	—	—	—	—
3 000 and over	2	14 686	8 910	—	—	—	—	—	—
Total ...	149	34 633	18 212	126	3 376	2 382	4	1 343	1 335

### Registration of Motor Boats

The Boating Act, 1974-1975 gives power to the South Australian Minister of Marine to regulate boating and other activities within South Australian waters. The main provisions of the Act refer to the registration of motor boats and the licensing of motor boat operators.

Any boat that is propelled by an engine, whether or not that engine is the main means of propulsion, must be registered and have its registration number displayed on the hull. The registration number consists of two letters followed by two digits and the letter 'S' denoting South Australia. From 1 November 1977 the annual registration fee is \$7.00. A registration must be renewed annually, but, for a boat that is less than 3.048 metres in length and powered with an engine that develops less than 5 horsepower, a renewal fee is not required. At 30 June 1977 there were 35 054 motor boats registered.

Only persons, sixteen years of age or older, may be issued with a motor boat operator's licence which remains in force without renewal unless cancelled or suspended under the Act or voluntarily surrendered. A person aged between twelve and sixteen years may be issued a permit to operate a motor boat subject to certain restrictions. At 30 June 1977 there were 43 532 motor boat operator's licence holders. The other provisions of the Act deal with unseaworthy boats, wrecks, and abandoned boats, speed restrictions, rules for water ski-ing, reckless and dangerous operation, the reporting of accidents, etc.

Details of the minimum safety equipment required to be carried in a motor boat are listed in the Act's Regulations; these vary according to the length of the motor boat and whether it operates in in-shore or off-shore waters.

### Shipping Search and Rescue

The Shipping Search and Rescue organisation (SAR), administered by the Department of Transport, co-ordinates the marine search and rescue operations for which the Commonwealth Government is responsible. The SAR also co-operates with the appropriate authorities in other marine emergencies.

### Shipping Arrivals at South Australian Ports

Shipping figures are based on returns rendered to the Collector of Customs by shipping companies, or their agents, in respect of trading vessels exceeding 200 net tons: each arrival at and departure from a South Australian port is recorded. In the following tables the column headings, coastal and overseas, indicate the classification of vessels regardless of the division of trade on which the vessels were engaged at any particular time.

The two tables below show arrivals of coastal and overseas vessels at individual Customs ports and at all ports in South Australia respectively.

#### Shipping: Vessels Entered at Customs Ports, South Australia, 1976-77

Port	Coastal				Overseas		Total	
	Intrastate		Interstate		Number	Net Tonnage	Number	Net Tonnage
	Number	Net Tonnage	Number	Net Tonnage				
		'000		'000		'000		'000
Ardrossan .....	24	126	16	73	25	108	65	307
Ballast Head .....	5	13	6	14	5	18	16	44
Port Adelaide (a) .....	239	183	181	625	513	2 767	933	3 576
Port Giles .....	—	—	—	—	13	114	13	114
Port Lincoln .....	59	47	10	86	48	386	117	519
Port Pirie .....	8	56	45	327	79	442	132	825
Port Stanvac .....	24	251	21	319	46	905	91	1 476
Rapid Bay .....	13	35	8	41	10	23	31	98
Thevenard .....	6	27	31	126	25	122	62	275
Walleroo .....	—	—	1	1	10	69	11	69
Whyalla .....	16	80	110	731	78	747	204	1 558

(a) Inner and outer harbour.

#### Shipping, Vessels Entered at South Australian Ports

Year	Coastal				Overseas		Total	
	Intrastate		Interstate		Number	Net Tonnage	Number	Net Tonnage
	Number	Net Tonnage	Number	Net Tonnage				
		'000		'000		'000		'000
1972-73 .....	913	1 515	604	3 786	1 006	6 172	2 523	11 472
1973-74 .....	915	1 422	542	3 226	1 005	6 413	2 462	11 061
1974-75 .....	912	1 233	522	2 982	1 024	6 760	2 458	10 975
1975-76 .....	963	1 360	434	2 427	1 041	6 960	2 438	10 746
1976-77 .....	672	1 005	429	2 343	852	5 700	1 953	9 048

The next table shows arrivals of vessels exceeding 200 net tons at selected Customs ports, according to country of registration of the vessels.

**Shipping: Country of Registration, Vessels Entered at Selected Customs Ports  
South Australia**

Customs Port	Country of Registration	Vessels		Net Tonnage	
		1975-76	1976-77	1975-76	1976-77
Ardrossan	Australia	62	49	221 314	216 927
	Other countries	25	16	140 159	90 342
	Total	87	65	361 473	307 269
Port Adelaide	Australia	546	390	980 816	808 708
	Greece	19	38	146 336	263 709
	India	17	20	81 558	104 142
	Japan	75	55	375 330	279 842
	Liberia	47	60	318 257	424 732
	Norway	28	23	209 418	211 294
	Panama	45	51	178 825	253 337
	Singapore	42	44	161 579	167 827
	United Kingdom	123	96	683 796	383 751
	USSR	70	68	277 283	226 071
	Other countries	128	97	639 574	504 139
Total		1 140	942	4 052 772	3 627 552
Port Lincoln	Australia	70	70	158 919	140 994
	Greece	11	7	88 403	59 680
	Liberia	8	5	71 753	45 402
	United Kingdom	11	10	99 590	90 444
	Other countries	40	26	248 018	188 743
Total		140	118	666 683	525 263
Port Pirie	Australia	54	53	358 373	382 775
	Greece	9	9	61 037	73 130
	India	15	10	74 501	48 382
	United Kingdom	40	16	312 261	123 139
	USSR	7	13	23 262	39 889
	Other countries	32	32	146 351	163 801
Total		157	133	975 785	831 116
Port Stanvac	Australia	51	56	634 139	649 199
	Liberia	9	8	290 760	263 702
	United Kingdom	13	4	104 809	38 329
	Other countries	24	28	575 672	687 820
Total		97	96	1 605 380	1 639 050
Thevenard	Australia	28	39	119 222	159 982
	Panama	4	6	13 787	17 311
	United Kingdom	9	9	67 414	65 970
	Other countries	25	9	94 747	34 558
Total		66	63	295 170	277 821
Whyalla	Australia	176	132	887 921	747 874
	Liberia	19	11	225 814	132 213
	United Kingdom	26	17	295 914	169 977
	Other countries	62	44	650 485	507 937
Total		283	204	2 060 134	1 558 001



**Cargo Handled at Major Ports**

The South Australian Department of Marine and Harbors records details of cargo handled at major ports in this State and the following table shows details for each of the last five years.

**Cargo Handled: Major Ports, South Australia**

Port	1972-73	1973-74	1974-75	1975-76	1976-77
	'000 tonnes				
American River .....	43	46	37	41	45
Ardrossan .....	519	522	541	744	596
Ballast Head .....	184	200	192	193	174
Kingscote .....	164	209	176	188	97
Klein Point .....	606	559	550	605	643
Port Adelaide .....	3 574	4 357	3 862	3 640	3 123
Port Augusta .....	42	31	11	—	—
Port Giles .....	73	99	119	145	102
Port Lincoln .....	588	739	970	783	617
Port Pirie .....	1 292	1 324	1 272	1 318	1 082
Port Stanvac .....	2 912	2 964	2 816	3 719	2 953
Proper Bay .....	231	102	48	33	23
Rapid Bay .....	291	243	229	228	267
Stenhouse Bay .....	24	14	5	—	—
Thevenard .....	757	975	924	630	609
Wallaroo .....	221	303	362	385	127
Whyalla .....	7 869	6 930	6 520	5 538	4 027
Other ports .....	3	1	—	—	—
<b>Total .....</b>	<b>19 393</b>	<b>19 618</b>	<b>18 634</b>	<b>18 190</b>	<b>14 483</b>

Total cargo handled at major ports in South Australia declined from 18 190 000 tonnes in 1975-76 to 14 483 000 tonnes in 1976-77, a decrease of 3 707 000 tonnes (20 per cent). Almost all South Australian ports handled less cargo during 1976-77 with the main decreases occurring at Port Stanvac, Whyalla and Port Adelaide.

**Overseas Shipping Cargo**

Overseas shipping cargo statistics are compiled from returns submitted by shipping companies, or their representatives, to Customs Houses at each port in South Australia. A return is required for each movement of a vessel into and out of a port except for naval vessels, yachts and other craft used for pleasure, foreign fishing vessels that neither load nor discharge cargo and vessels not exceeding 200 net tons.

Cargo is recorded in terms of either units of weight or units of volume depending on the basis on which freight is charged. The statistics show separate figures for cargo recorded in tonnes weight and cargo recorded in cubic metres. The aggregates for weight and volume cargo are not added to a figure for total cargo because they are unlike quantities, and comparisons of total cargo between ports, trade routes or periods of time could be affected by variations in the cargo mix and in the basis on which freight is charged.

The following figures show, for the years 1975-76 and 1976-77, particulars of cargo loaded in South Australia for discharge overseas, and of cargo discharged in South Australia from overseas, classified according to major trade areas.

## Shipping: Cargo Loaded in South Australia, Trade Area of Destination

Cargo Loaded for Ports in—	1975-76		1976-77	
	Tonnes Weight	Cubic Metres	Tonnes Weight	Cubic Metres
North America and Hawaiian Islands:				
Northern Area;				
USA .....	22 021	1 941	70 679	1 819
Canada .....	4 684	2 296	331	2 315
Central America .....	402	—	—	—
Bermuda and Caribbean Area .....	—	—	—	4
South America .....	102 633	—	6 700	—
Europe (excluding USSR):				
North-western, Central and Baltic;				
United Kingdom .....	24 755	12	56 457	30
Other .....	668 135	20 384	531 172	4 272
Southern Area .....	78 691	528	30 130	10 321
USSR (in Europe and Asia) .....	410 116	1	37 168	4 971
Africa .....	162 265	29 601	112 900	14 049
Asia (excluding USSR) .....	2 816 435	183 062	2 408 627	225 199
Papua and New Guinea, New Zealand and Pacific Islands .....	280 749	46 997	253 322	43 861
Indian Ocean Islands and Antarctica .....	5	115	11 332	118
Total cargo loaded .....	4 570 891	284 937	3 518 818	306 959

## Shipping: Cargo Discharged in South Australia, Trade Area of Origin

Cargo Discharged from Ports in—	1975-76		1976-77	
	Tonnes Weight	Cubic Metres	Tonnes Weight	Cubic Metres
North America and Hawaiian Islands:				
Northern Area;				
USA .....	41 242	55 249	35 158	36 808
Canada .....	6 842	51 160	61 475	64 639
Central America .....	—	—	—	—
Bermuda and Caribbean Area .....	25 201	27	—	—
South America .....	—	—	13 600	—
Europe (excluding USSR):				
North-western, Central and Baltic;				
United Kingdom .....	3 474	1 083	12 977	986
Other .....	7 809	26 164	22 230	37 571
Southern Area .....	630	7 077	94 969	8 280
USSR (in Europe and Asia) .....	49	18	326	172
Africa .....	13 855	1 000	15 122	1 230
Asia (excluding USSR) .....	2 093 519	212 727	1 935 090	236 713
Papua and New Guinea, New Zealand and Pacific Islands .....	216 872	20 998	107 178	30 158
Indian Ocean Islands and Antarctica .....	146 257	—	46 144	—
Total cargo discharged .....	2 555 750	375 503	2 344 269	416 557

**Distances to Overseas Ports**

Distances in kilometres from Port Adelaide to principal overseas ports are shown in the following table. Distances by sea from Port Adelaide to the ports of other Australian capital cities are given on page 487.

**Distances from Port Adelaide to Principal Overseas Ports**

Port Adelaide to:	Kilometres	Port Adelaide to:	Kilometres
<i>Africa;</i>		<i>North America;</i>	
Cape Town.....	10 377	<i>East Coast,</i>	
<i>Asia;</i>		Baltimore.....	(a) 23 135
Colombo.....	7 982		(c) 19 059
Djakarta.....	5 643	Montreal.....	(a) 23 541
Hong Kong.....	8 856		(c) 21 368
Singapore.....	6 510	New York.....	(a) 22 961
Yokohama.....	9 780		(c) 19 200
<i>Europe;</i>		<i>West Coast,</i>	
Liverpool.....	(a) 21 630	San Francisco.....	13 653
	(b) 19 774	Vancouver.....	14 357
London.....	(a) 21 705		
	(b) 19 839	<i>Central America;</i>	
Marseilles.....	(a) 21 144	Panama.....	15 385
	(b) 16 688	<i>East Coast,</i>	
Naples.....	(a) 21 663	Buenos Aires.....	(d) 14 388
	(b) 15 940	Rio De Janeiro.....	(d) 15 901
<i>New Zealand;</i>		<i>West Coast,</i>	
Auckland.....	3 769	Valparaiso.....	12 353
Wellington.....	3 482		

(a) Via Cape Town. (b) Via Suez Canal. (c) Via Panama Canal. (d) Via Cape Horn.

**Passenger Movement by Sea**

Statistics of passengers disembarking, embarking and passing through Australian ports are compiled according to type of passenger—namely overseas, direct transit, interstate or cruise. 'Overseas' passengers are defined as persons travelling to or from overseas destinations and who embark or disembark in Australia; 'direct transit' as persons on vessels calling at Australian ports and who have embarked at an overseas port for an overseas destination; 'interstate' as persons travelling by sea from one Australian State to another, or travelling from and to the same port or a port in the same State *via* other States; and 'cruise' as persons on an overseas journey which begins and ends in Australia, does not exceed thirty days, is confined to specific ports in the South-West Pacific area and has been classified as a cruise to enable certain documentation requirements to be waived. Information about passengers is obtained from ships' manifests, passenger cards completed by passengers, the Department of Transport, and the Bureau of Customs.

**CIVIL AVIATION**

**Control of Civil Aviation**

In Australia, civil aviation is subject to the Commonwealth *Air Navigation Act 1920* and to regulations made under the Act. The South Australian *Air Navigation Act, 1937* provided for 'the application of Commonwealth Air Navigation Regulations to, and in relation to, air navigation within the State of South Australia'. The regulations under the Commonwealth Act were drawn up to give effect to the 1944 Chicago Convention on Civil

Aviation. Regulations based on the resolutions of the Paris Convention in 1919 were no longer adequate in the years after the 1939-45 War because of the immense wartime development of aerial transport.

The present regulations, administered by the Department of Transport, cover the registration of aircraft and the issue of certificates of airworthiness; the licensing of aircraft services, aircraft operating crews, aerodromes, and flying training schools, and the rules of the air. The Department is responsible for the operation of Air Traffic Control and has assumed responsibility for co-ordination of search and rescue operations.

Under the *Australian National Airlines Act 1945* the Australian National Airlines Commission was established and empowered to operate Commonwealth Government-owned air services. The Commission operates under the name Trans-Australia Airlines.

The *Civil Aviation Agreement Act 1952* ratified an agreement between the Commonwealth Government and Australian National Airways Pty Ltd to ensure the efficient and economical operation of air services within Australia by eliminating wasteful competition between that company and Trans-Australia Airlines and to rationalise the services of both airlines. The *Civil Aviation Agreement Act 1957* was enacted to extend the privileges and obligations of the 1952 Act to the new proprietor of the major private airline after the purchase of Australian National Airways Pty Ltd by Ansett Transport Industries Ltd. The Commonwealth Parliament passed the *Airlines Equipment Act* in 1958 and this provided for further financial assistance to both airlines for the purchase of new aircraft and empowered the Commonwealth Government to limit the aircraft capacity being provided on competitive routes by these two operators.

The Airlines Agreement approved by the *Airlines Agreement Act 1961* consolidated all the arrangements and principles developed by the Government over the past decade for maintaining and securing the competitive airline system and made important arrangements affecting the introduction of new aircraft on Australian domestic routes. The *Civil Aviation Agreement Act 1952*, amended by the 1961 Act, is now cited as the *Airlines Agreement Act 1952*.

For reference to international agreements on civil aviation see the *Official Year Book of Australia* No. 48, and for references to international organisations see Year Book No. 37.

#### Aircraft on Register

The total number of aircraft listed at 30 June 1977 on the Australian register was 4 871. The following table shows figures for registered aircraft based in the South Australia-Northern Territory Region, classified by type of operation.

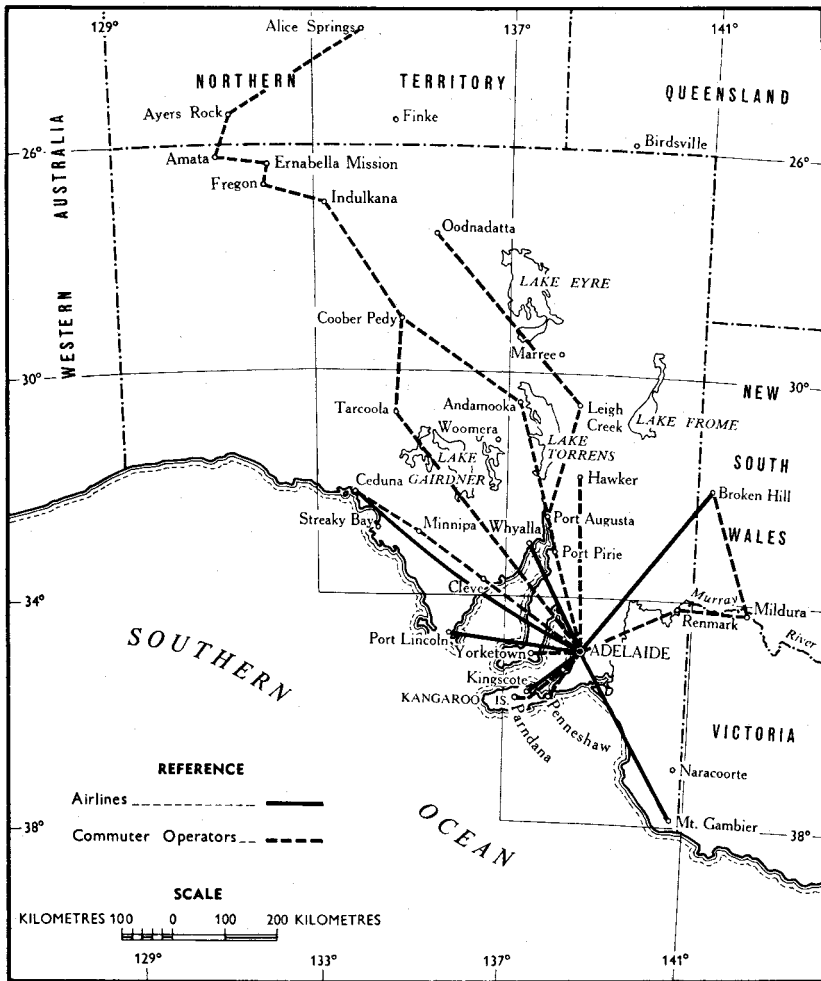
**Aircraft Based in South Australia-Northern Territory Region**  
**Type of Operation**

Type of Operation	At 30 June				
	1973	1974	1975	1976	1977
Regular public transport (a) .....	13	11	11	9	9
Private .....	185	227	247	272	327
Charter .....	117	121	130	123	131
Other (b) .....	103	107	116	114	127
<b>Total .....</b>	<b>418</b>	<b>466</b>	<b>504</b>	<b>518</b>	<b>594</b>

(a) Excludes major airlines servicing interstate routes.

(b) Includes agricultural work, ambulance, survey and pilot training functions.

# SOUTH AUSTRALIA AIR SERVICES



## General Air Services

Adelaide has no direct links by air with overseas: these are provided through Sydney, Melbourne, and Perth. However, it is on the scheduled flights of regular interstate services from Sydney, Melbourne, Perth, Canberra and Darwin.

Adelaide is also the terminus for intrastate services. Regular connections to Ceduna, Kingscote, Mount Gambier, Port Lincoln and Whyalla are provided by Ansett Airlines of South Australia.

Since 1966-67, when the Commonwealth Government approved introduction of commuter services in country areas, there has been a significant increase in regular air services between country towns and areas which were either not served by the major airlines or had no direct air service with Adelaide or the nearest major provincial city. Such services usually utilise single or twin engined aircraft and operate to fixed and published time-tables.

The first commuter service in Australia, between Adelaide and opal fields at Andamooka and Coober Pedy, commenced during 1966-67. This service was later extended to Ayers Rock, and now also services a number of remote localities *en route*.

### Passengers and Freight Carried

The number of passengers and the tonnage of freight carried on civil airlines in South Australia has more than doubled on both interstate and intrastate services during the last ten years. Details of movements at principal airports for the last five years are shown in the following table. A full list of Government and licensed aerodromes in South Australia appears on page 352.

#### Principal Airports, South Australia Passengers, Freight and Aircraft Movements

Airport	1972-73	1973-74	1974-75	1975-76	1976-77
PASSENGERS (a)					
Adelaide (b) (c).....	1 156 808	1 376 891	1 425 860	1 454 917	1 607 238
Kingscote .....	48 609	59 107	61 121	58 887	51 963
Port Lincoln.....	49 758	60 956	61 737	65 498	63 628
Woomera .....	15 564	14 209	14 032	8 876	5 872
Whyalla .....	32 662	39 454	41 267	42 939	37 173
Mount Gambier .....	24 958	29 464	30 148	33 748	33 620
FREIGHT—TONNES (d)					
Adelaide (b) (c).....	14 469	18 549	18 957	16 390	18 849
Kingscote .....	136	151	142	133	117
Port Lincoln.....	119	124	121	130	134
Woomera .....	168	99	90	64	35
Whyalla .....	122	129	133	108	95
Mount Gambier .....	109	101	98	102	100
AIRCRAFT MOVEMENTS (e)					
Adelaide (c).....	22 659	24 351	24 225	23 978	24 354
Kingscote .....	1 745	1 992	2 081	2 239	1 898
Port Lincoln.....	1 742	2 234	2 325	2 332	2 220
Woomera .....	536	474	458	361	n.a.
Whyalla .....	1 188	1 378	1 432	1 540	1 396
Mount Gambier .....	1 257	1 398	1 567	1 753	1 592

(a) Total of embarkations and disembarkations.

(b) Figures of passengers and freight movements are overstated to the extent of through traffic transferring between flights.

(c) Includes Edinburgh Airfield.

(d) Total of freight loaded and unloaded.

(e) Total of arrivals and departures.

### Civil Aviation Accidents

During 1976-77 there were five civil aviation accidents involving casualties in South Australia and these resulted in the death of eleven persons and injury to two.

The table below shows the details of civil aviation accidents involving casualties during the ten year period 1967-68 to 1976-77.

**Civil Aviation Accidents Involving Casualties, South Australia  
1967-68 to 1976-77<sup>(a)</sup>**

Class of Operation	No. of Accidents	Persons Killed	Persons Injured
Regular public transport .....	—	—	—
Charter .....	5	16	2
Training .....	3	—	1
Private .....	24	57	9
Gliding .....	8	4	4
Other .....	1	—	1
<b>Total .....</b>	<b>41</b>	<b>77</b>	<b>17</b>

(a) Excludes parachutists killed or injured on contact with earth after an uninterrupted fall.

## 10.5 COMMUNICATION

As a result of Federation all the former colonial post and telegraph services were taken over by the Commonwealth Government on 1 March 1901 and until 1 July 1975 were controlled, pursuant to the provisions of the *Post and Telegraph Act 1901*, by the Postmaster-General through the Postmaster-General's Department. A detailed history of Posts, Telegraphs and Telephones was included on pages 469-70 of the *South Australian Year Book 1967*.

In February 1973 a Commission was established to conduct an inquiry into what changes, if any, should be made in the organisation, administration and operations of postal and telecommunication services. In their Report, presented in April 1974, the Commissioners recommended establishment of separate postal and telecommunication corporations independent of the jurisdiction of the Public Service Board.

As a result of the Government's acceptance of this recommendation the Australian Telecommunications Commission and the Australian Postal Commission took over from the Australian Post Office on 1 July 1975 under the provisions of the *Telecommunications Act 1975*, the *Postal Services Act 1975*, and the *Postal and Telecommunications Commissions (Transitional Provisions) Act 1975*.

### POSTAL SERVICES

The Australian Postal Commission (Australia Post) commenced with a staff of 35 000. The Commission's aim is to provide a fast and efficient postal service, at the least possible cost, to standards which reasonably meet the needs of the Australian community. Each week day Australia Post services about 4.8 million delivery points, and distributes nine million articles.

On 5 July 1976 the Australia Post Courier service was extended to include Adelaide. The service provides full pick-up and delivery and now operates in all capital cities.

Details of post offices for the years 1973 to 1977 are given in the following table.

Non-official post offices are conducted by persons who are not employed under the *Postal Services Act 1975* and who receive an allowance based on business transacted—in many instances this type of business is conducted in conjunction with some other business activity.

**Post Offices: South Australia and Northern Territory  
Number at 30 June**

Particulars	1973	1974	1975	1976	1977
<b>Post Offices:</b>					
Official .....	171	171	171	171	171
Non-official .....	650	615	590	569	556
<b>Total .....</b>	<b>821</b>	<b>786</b>	<b>761</b>	<b>740</b>	<b>727</b>

At 30 June 1977, there were 3 751 persons employed in postal services in South Australia and Northern Territory including 3 035 official staff employed under the *Postal Services Act 1975* and 716 non-official staff. In addition there were 270 mail contractors who held mail service contracts with Australia Post.

The Australia Post financial statements are prepared on an accrual accounting basis and in accordance with accounting principles generally applied in commercial practice. Gross postage receipts collected in South Australia and Northern Territory by Australia Post during 1976-77 totalled \$36.1 million including \$19.6 million from postage stamps, \$8.9 million from postal debtors and \$4.6 million from franking machines.

**Postal Articles Handled**

Details of articles handled by post offices in South Australia and the Northern Territory during the years 1972-73 to 1976-77 are shown in the following table.

**Postal Articles Handled, South Australia and Northern Territory**

Year	Standard Articles (a) (b)	Non-standard Articles (a) (c)	Parcels (d)	Registered Articles	All Articles
<b>Posted for delivery:</b>			'000		
<b>Within Australia;</b>					
1972-73 .....	203 236	18 317	1 888	606	224 048
1973-74 .....	209 303	21 095	1 884	579	232 860
1974-75 .....	186 909	25 967	1 642	589	215 107
1975-76 .....	156 073	20 989	1 362	438	178 862
1976-77 .....	150 738	18 873	1 322	363	171 296
<b>Beyond Australia;</b>					
1972-73 .....	9 619	787	93	85	10 584
1973-74 .....	4 517	318	85	79	4 999
1974-75 .....	4 453	316	82	89	4 940
1975-76 .....	8 408	365	68	67	8 908
1976-77 .....	9 688	370	73	62	10 193
<b>Received from beyond Australia:</b>					
1972-73 .....	5 745	1 731	85	30	7 590
1973-74 .....	5 405	1 876	98	32	7 411
1974-75 .....	6 569	2 288	110	36	9 003
1975-76 .....	5 975	1 840	224	33	8 072
1976-77 .....	6 582	1 679	225	35	8 521

(a) Includes Certified and Messenger Delivery mail. (b) Before 1974-75 includes all letter form articles. (c) Before 1974-75 includes only newspapers and packets. (d) Includes registered parcels.



**Money Orders and Postal Orders**

The value of money orders and postal orders issued in 1944-45 amounted to \$3 128 000 and \$1 801 000 respectively; in 1976-77 the corresponding values were \$20 747 000 and \$4 448 000.

The value of money orders and postal orders paid in 1944-45 amounted to \$2 995 000 and \$1 072 000 respectively; in 1976-77 the corresponding values were \$18 976 000 and \$3 111 000.

**Money Orders Issued and Paid**  
**South Australia and Northern Territory**

Year	Money Order Offices	Issued For Payment				Paid, Having Been Issued			
		Within Australia		Beyond Australia		Within Australia		Beyond Australia	
		Number	Value	Number	Value	Number	Value	Number	Value
	Number	'000	'000	'000	'000	'000	'000	'000	'000
1972-73 .....	541	386	12 375	59	723	361	11 548	20	510
1973-74 .....	534	337	13 138	57	726	317	12 184	18	438
1974-75 .....	529	336	17 547	41	755	308	15 333	15	511
1975-76 .....	517	337	19 418	35	606	299	16 883	9	369
1976-77 .....	512	333	20 234	26	513	302	18 582	7	394

**Postal Orders Issued and Paid**  
**South Australia and Northern Territory**

Year	Postal Order Offices	Postal Orders Issued		Postal Orders Paid	
		Number	Value	Number	Value
	Number	'000	'000	'000	'000
1972-73 .....	822	2 364	9 059	1 888	7 755
1973-74 .....	814	2 305	9 660	1 869	8 075
1974-75 .....	762	2 026	8 933	1 647	7 457
1975-76 .....	740	1 220	5 597	960	4 457
1976-77 .....	727	851	4 448	622	3 111

**TELECOMMUNICATION SERVICES**

The Australian Telecommunications Commission (Telecom Australia) has responsibility for telecommunication services within Australia. On commencement the Commission had approximately 3.5 million telephone subscribers, net assets of \$4 000 million, a staff of 88 600 and a projected budget for 1975-76 of \$1 900 million.

During 1976-77 there was a considerable growth in the provision of services *e.g.* the telephone network increased by six per cent, telex by fifteen per cent and 'Datel' by fifty-one per cent; the Commission in conjunction with Overseas Telecommunications Commission provided a new service, International Subscriber Dialling (ISD), to thirteen countries. In addition, existing services are being improved *e.g.* modernisation of public telephone services including the provision of Subscriber Trunk Dialling (STD) from public telephones.

Cash receipts of Telecom Australia in South Australia and Northern Territory amounted to \$149.9 million during 1976-77 including \$140.2 million from telephone

services, and \$6.3 million from telegraph services. Cash payments for the same period amounted to \$157.5 million including \$91.6 million for salaries and wages.

At 30 June 1977 there were 9 204 staff employed by Telecom Australia in South Australia and the Northern Territory including 7 011 permanent officers *i.e.* those employees whose employment is governed by the *Telecommunications Services Act 1975*. In addition there were 111 contract staff and 42 staff members who had their salaries paid by other Government authorities.

### Telegraph System

Australia's telegraph service, known as TRESS (Teleprinter Reperforator Switching System) was first introduced in South Australia in 1959, before being extended to the other States. This system, using teleprinters and automatic switching apparatus, has eliminated the intermediate handling of telegraph traffic, resulting in greater speed and economy.

Another telegraph service known as TELEX has been available in South Australia since 1957. TELEX is a telecommunications system, similar to the telephone network, using teleprinter machines and providing a printed record of every message. Subscribers are provided with a teleprinter in their own premises and may be connected through the teleprinter exchange with other subscribers anywhere in Australia and in more than 100 overseas countries. At 30 June 1977 there were 2 157 subscribers in South Australia.

The number of telegrams dispatched and received, and some information on the operations of TELEX during the years 1972-73 to 1976-77, are shown below.

### Telegraph Services, South Australia and Northern Territory

Year	Telegrams		Teleprinter Exchange	
	Dispatched within Australia	Dispatched beyond Australia	Subscribers	Number of Calls (a)
	'000	'000	Number	'000
1972-73 .....	1 971	142	1 175	2 466
1973-74 .....	1 968	160	1 438	2 909
1974-75 .....	1 751	159	1 657	3 639
1975-76 .....	1 420	146	1 890	3 682
1976-77 .....	1 158	137	2 157	3 879

(a) Includes official Post Office traffic.

The Telecom Australia picturegram service is used to send and receive photographs to and from other parts of Australia and overseas. Photographs of documents, X-rays, and other matter capable of being photographed can be transmitted by this service.

Telecom Australia also provides a Datel service for the transmission of digital data between computer systems over private lines or the ordinary telephone network. The data are converted into a form suitable for transmission over a telephone type circuit by a 'modulator/demodulator' unit known as a 'Modem'. Before data are presented to the computer or terminal they are restored to their original form.

### Telephone Services

Telecom Australia provides subscriber services, trunk line circuits and automatic telephone exchanges. There has been a continuous growth in these facilities and at 30 June 1977 there were 3 367 trunk line channels and 363 country automatic telephone exchanges in the State. There are sixty-one automatic exchanges in the Adelaide Telephone District. From 1 September 1977 the normal charges for selected telephone services are as follows:

Installation charge for a new telephone service is \$120. Annual rental charges are based on the facilities provided; where continuous exchange facilities exist the charge for a non-business service is \$85 or in the case of pensioners \$56-67, paid half-yearly in advance. The corresponding rental charges to subscribers with non-continuous exchanges are \$40 and \$26-66 respectively. Annual rental charges for continuous exchange and non-continuous exchange business services are \$120 and \$50 respectively. Approximately 99 per cent of subscribers now have continuous service.

Private calls between subscribers within a single telephone zone, and between subscribers in adjoining zones, are charged at a 'local call' rate of 9 cents per call. The corresponding charge for calls from public telephones is 10 cents. Trunk call rates, which vary according to duration and distances, are charged for calls between non-adjoining telephone zones: lower rates are charged for calls between 6 p.m. and 8 a.m.

### Telephone Services, South Australia and Northern Territory

At 30 June	Telephone Exchanges	Telephone Services					Trunk Line Channels in Service (a)	
		Ordinary Exchange	Duplex	Party Line	Private Branch Exchange	Public Telephones		Total
1973.....	690	239 467	2	995	35 178	3 045	278 687	2 378
1974.....	674	257 146	2	915	37 140	3 097	298 300	2 726
1975.....	670	270 036	2	870	37 818	3 078	311 804	2 829
1976.....	667	289 875	2	804	41 128	3 139	334 948	3 031
1977.....	667	317 270	2	714	40 184	3 164	361 334	3 367

(a) Excludes trunk junctions.

A Telecom Australia objective is the establishment of a nationwide subscriber to subscriber direct trunk calling system known as subscriber trunk dialling (STD). The provision of STD facilities at telephone exchanges in South Australia has increased rapidly since its introduction in January 1967 and at 30 June 1977 STD facilities were available to approximately 257 000 subscribers in the Adelaide Telephone District and about 67 100 country subscribers for two-way contact with selected exchanges in New South Wales, Victoria, Queensland, Western Australia and Tasmania.

Because approximately fifty-four per cent of trunk calls originate in country areas, directed either to the capital city or to other country exchanges, great benefit will accrue when all country exchanges are linked with the STD system. However, many years will elapse before the majority of exchanges can be connected because of the amount of work and the complex equipment involved.

All metropolitan and outer metropolitan services are operated through automatic exchanges, whereas at 30 June 1977, 78 400 country and Northern Territory services were automatic and 13 400 services were manually operated. Metropolitan and outer metropolitan services totalled approximately 269 500 and of these 200 700 were non-business. In the country, business telephone services accounted for a larger share (about forty-nine per cent) of services.

## RADIO AND TELEVISION SERVICES

On 1 July 1975 Telecom Australia took over certain broadcasting responsibilities which had been vested in the former Postmaster-General's Department, under the *Broadcasting and Television Act 1942*. Telecom Australia is now required to provide and operate for the purposes of broadcasting and televising programs of the Australian Broadcasting Commission (ABC) the following:

- (1) transmitting stations (including translator stations) for the National and Radio Australia services;
- (2) interconnection facilities to connect each studio of the ABC to its appropriate local transmitting station;
- (3) technical equipment for the reception of broadcasting transmissions from other countries for re-broadcast by the ABC.

Under the abovementioned charter, Telecom Australia is currently operating all transmitting station and program link facilities associated with the ABC's broadcasting services viz, medium frequency, high frequency inland, frequency modulation (FM), Television and Radio Australia (International). In addition, Telecom Australia is the construction authority for all new transmitting facilities required for these services.

Details of radio and television stations licensed in South Australia at 30 June in the years 1973 to 1977 are shown in the following table.

**Radio and Television Stations, South Australia**  
At 30 June<sup>(a)</sup>

Radio Communication Stations	1973	1974	1975	1976	1977
<b>Broadcasting:</b>					
National .....	10	10	10	10	11
Commercial .....	8	8	8	9	9
Public (b) .....	1	1	1	1	1
<b>Television:</b>					
National .....	4	6	6	6	8
Commercial .....	5	5	5	5	6
<b>Transmitting and receiving:</b>					
<b>Fixed;</b>					
Outpost .....	171	185	190	218	223
Other .....	154	153	174	196	219
<b>Land;</b>					
Aeronautical .....	35	38	40	39	42
Base stations for mobile services .....	1 275	1 448	1 521	1 632	1 819
Coast .....	24	25	25	26	26
Experimental .....	66	72	78	79	82
Repeater .....	—	—	—	1	1
Mobile .....	15 437	17 332	19 219	20 922	23 413
Space services .....	1	1	1	1	1
Amateur .....	748	778	789	795	874
<b>Receiving only:</b>					
Fixed .....	19	20	21	22	22
Mobile .....	10	10	24	24	31
<b>Total stations .....</b>	<b>17 968</b>	<b>20 092</b>	<b>22 112</b>	<b>23 986</b>	<b>26 788</b>

(a) Excludes stations in Northern Territory.

(b) University of Adelaide station 5UV.

A fixed station is established at a fixed location for the exchange of radio messages with other fixed stations whereas a land station is established at a fixed location for the exchange of radio messages with mobile stations. An outpost station is established in an outback area and communicates with control stations operated by such organisations as the Royal Flying Doctor Service. A space service is a radiocommunication service between earth stations and space stations, between space stations, or between earth stations when signals are retransmitted by space stations, or transmitted by reflection from objects in space.

A new commercial television station, based at Loxton, was opened on 27 November 1976.

The first four stations of the National FM broadcasting network began transmission on 24 January 1976. The high power stereo transmissions which serve Sydney, Melbourne, Canberra and Adelaide originate from the Australian Broadcasting Commission's Adelaide studios and are relayed over specially prepared lines.

Further information on radio and television services is contained in Part 6.4 Culture and Recreation.

### OVERSEAS TELECOMMUNICATIONS SERVICES

The Overseas Telecommunications Commission (Australia) was established under the *Overseas Telecommunications Act 1946*. The Commission, in association with the Australian Telecommunications Commission in Australia and with telecommunication authorities in overseas countries, provides telecommunication services between Australia and other countries. These services are provided through high-frequency radio, coaxial submarine cable, and satellite communication systems, and include international public message telegraph, telephone (including International Subscriber Dialling), telex, phototelegraph and leased teleprint and telephone-type services. A service providing computer to computer high-speed data transfer is also available to some countries, while international television programs are provided by means of satellite communication facilities. In addition, the Commission operates the Australian coastal radio services for communication with ships at sea in Australian waters, and high-frequency radio services for communication with ships in any part of the world.

Earth stations at Carnarvon in Western Australia and at Moree in New South Wales operate through the INTELSAT IV Pacific Ocean communications satellites.

The station at Carnarvon is also one of six world-wide stations which provide satellite tracking, telemetry, command and communications monitoring for the system of INTELSAT satellites.

In February 1970 Australia's third earth station near Ceduna was opened. This station faces westward to INTELSAT IV which is located over the Indian Ocean and can carry all types of communications traffic: subject to establishment of earth stations in relevant countries it provides facilities for direct links with Europe, Africa, India, most of South-East Asia, and the western part of Japan. The first direct broadcast *via* this satellite was received in Australia from the United Kingdom on 20 February 1970.

Details of the overseas telecommunications services and traffic are published in various issues of the *Official Year Book of Australia*, e.g. No. 61, 1975-1976, pages 414-16.

**PART 11**

**PUBLIC FINANCE**

**11.1 STRUCTURE OF PUBLIC FINANCE**

The collection of public revenue and the expenditure of public money in South Australia are the responsibility of four groups of authorities: (i) Commonwealth Government; (ii) South Australian Government; (iii) State public corporations; and (iv) local government.

The power to raise revenue from taxation is vested in the various governments and authorities by Acts of Parliament. Other revenue comes from the proceeds of the sale of goods and services to the public and to other governments and authorities. A major proportion of the revenue of the State Government, and a smaller proportion of the revenue of local government authorities and some public corporations is derived from grants from other levels of government. A further source of funds is the loan market; government securities are issued for loan raisings in Australia and overseas.

Authorisation for expenditure by Commonwealth and State Government departments is given by Appropriation Acts or by Special Acts of their respective Parliaments. Each State public corporation derives its authority for expenditure from the provisions of the specific Act under which it has been established. The Local Government Act, 1934-1978 contains sections relating to local government expenditure. The following sections of this part provide some details of the financial transactions of the government sector in South Australia. Special attention is given to transactions within the State Government budget, transactions of a number of public corporations, and transactions of all local government authorities. In addition, details of some Commonwealth Government expenditures are included.

**Commonwealth Government Transactions**

Reference is made to the revenue and expenditure of the Commonwealth Government only to the extent that it affects the finances of the State Government. As indicated in more detail below, not all of the transactions listed relate directly to the State Budget; many of the items are negotiated wholly through State Trust Funds. The transactions which are included represent only a small proportion of total expenditure by the Commonwealth Government within South Australia. A more detailed analysis of Commonwealth Government finance may be obtained from the *Official Year Book of Australia*.

**State Government Accounts**

Statistics relating to the State Government Budget are derived from accounts prepared by the Treasurer each year and included in the Report of the Auditor-General of South Australia. These accounts, which are on a cash basis, cover the Consolidated Revenue Account which in general terms is the current account of the Government, and the Loan Fund through which is handled all money raised by public borrowing; the receipt and disbursement of some special purpose Commonwealth Government grants are also handled through these accounts.

State Government Budget receipts include (in addition to loan raisings) taxation, proceeds of sale of goods and services by trading undertakings, some of the grants made by the Commonwealth Government, fees, rents, recoups and other sundry items. State Government disbursements are made for capital works, for provision of services (such as health, education and water supply), for general administrative expenses, and for interest and redemption payments.

The State Government Budget excludes many transactions negotiated through State Government Deposit and Suspense Accounts (including working accounts) and Trust Funds. The volume of such transactions is considerable. For example, transactions for roadworks are handled through the Highways Fund and transactions relating to forest operations are included in the Woods and Forests Working Account.

Some idea of the framework of the various funds may be obtained from the following table showing sources and disposal of funds in which the balances of Trust Funds and of Departmental Accounts appear.

**Government of South Australia, Sources and Disposal of Funds at 30 June 1977**

Sources and Nature of Funds	\$'000
Public Debt:	
Securities current at 1 July 1976 .....	1 394 702
New Loans raised during 1976-77 .....	273 936
	<hr/>
	1 668 638
Less: Securities redeemed and converted .....	172 901
	<hr/>
Public Debt at 30 June 1977 .....	1 495 737
Other interest bearing indebtedness:	
Trust Fund balances .....	16 620
Liabilities to Commonwealth Government;	
Housing Agreements .....	454 122
Other .....	130 410
Non-interest bearing indebtedness:	
Trust Fund balances .....	24 350
Departmental balances and other funds .....	76 899
	<hr/>
	2 198 138

**Government of South Australia, Sources and Disposal of Funds  
at 30 June 1977 (continued)**

	\$'000	
Disposal of Funds		
Loan Account:		
Total of Loan Works at 1 July 1976 .....	1 403 557	
Payments during 1976-77 .....	261 125	
	1 664 682	
Less: Repayments .....	67 789	
Securities cancelled .....	17 784	
Other credits (a) .....	83 372	
	168 945	
Loan Works Account balances at 30 June 1977 .....		1 495 737
Consolidated Revenue Account:		
Surplus at 1 July 1976 .....		-27 569
Receipts for Year .....	1 174 025	
Payments for Year .....	1 183 180	
	9 155	
Deficit for Year .....		-18 414
Surplus at 30 June 1977 .....		-18 414
Rural Industry Assistance Agreement:		
Advances to primary producers .....		16 963
Housing Agreements:		
Advances to SA Housing Trust .....	259 226	
Advances to Home Builders Accounts .....	194 896	
	454 122	
Natural Gas Pipeline Agreement:		
Advances to Pipelines Authority of South Australia .....		5 625
Land Acquisition:		
Advances to SA Land Commission .....		55 257
Other Agreements .....		82 170
Cash at bank and short-term deposits .....		106 677
		2 198 138

(a) Comprises Capital Works Grant, in lieu of loan raising (\$59 318 000) and transfer from Revenue Account (\$24 054 000).

### Public Corporation Accounts

Most of the details included under this classification are based on the Auditor-General's annual reports prepared for a number of public corporation business undertakings, including those engaged in banking. Information is given from both revenue statements and balance sheets.

### Local Government Accounts

Details included for local government authorities are based on annual statements prepared on an income and expenditure (accrual) basis in accordance with the 'Local Government Accounting Regulations, 1967'. Details of loan raisings are based on returns furnished separately.



**Consolidated State and Local Government and Public Corporations Accounts**

Any analysis of financial transactions of the Government sector would be incomplete without a comprehensive consolidation of all levels and funds of Government. Such data is released in the *Public Authority Finance* bulletin published by the Australian Statistician: this bulletin shows net receipts and outlays of the Commonwealth Government and each State separately and of the Commonwealth Government combined with all States. The figures are net and consolidated: net figures are those for which expenditures within a given classification have been reduced to the extent of any relevant receipt (and *vice versa*); and consolidated figures are those for which inter-authority, inter-level and inter-fund transactions are eliminated on consolidation of those authorities, levels and funds.

The tables which follow show figures on a consolidated net basis for State and local government and public corporations in South Australia for the four years to 1975-76.

**State and Local Government Authorities and Public Corporations  
South Australia, Receipts and Financing Items**

Particulars	1972-73	1973-74	1974-75	1975-76
<b>Receipts:</b>				
			\$ million	
Taxes, fees, fines, etc. ....	168.9	213.6	292.4	360.5
Income from public enterprises ....	40.7	38.9	17.6	53.8
Property income;				
Interest .....	21.2	26.5	33.2	39.9
Land rent, royalties .....	4.0	4.8	5.0	5.5
Total property income	25.2	31.3	38.1	45.4
<b>Grants from the Commonwealth Government:</b>				
For current purposes .....	240.6	291.8	445.0	607.6
For capital purposes .....	80.6	105.1	151.5	164.9
Total receipts .....	556.0	680.7	944.6	1 232.1
<b>Financing items:</b>				
<b>Net borrowing;</b>				
Local authority and public corporation securities .....	23.7	28.6	30.4	34.8
Other general government securities .....	5.2	4.0	5.5	7.0
<b>Net advances from the Commonwealth Government;</b>				
For loan works purposes .....	83.4	61.3	79.8	92.8
Other .....	2.3	46.2	87.3	93.7
<b>Net receipts of private trust funds .....</b>	5.1	-0.1	2.7	6.4
<b>Reduction in;</b>				
Cash and bank balances .....	-26.7	-31.9	-19.5	-82.3
Security holdings .....	-0.3	3.9	1.2	0.9
<b>Other funds available (including errors and omissions) .....</b>	28.6	36.1	28.5	33.1
Total financing items .....	121.4	148.1	215.9	186.3
<b>Total funds available .....</b>	<b>677.4</b>	<b>828.8</b>	<b>1 160.5</b>	<b>1 418.5</b>

**State and Local Government Authorities and Public Corporations  
South Australia, Outlay**

Particulars	1972-73	1973-74	1974-75	1975-76
			\$ million	
Final consumption expenditure.....	286.6	381.4	549.3	714.1
Gross capital formation:				
Increase in stocks .....	0.5	1.8	3.3	1.4
Expenditure on new fixed assets .....	228.7	256.3	381.8	461.6
Expenditure on existing assets (net)	13.7	34.6	44.3	33.2
Total gross capital formation ...	242.8	292.7	429.4	496.3
Transfer payments:				
Interest .....	106.3	112.8	126.9	134.3
Transfer to persons .....	11.6	12.6	14.5	15.6
Subsidies .....	0.6	0.6	0.8	1.3
Grants for private capital purposes ..	6.5	5.6	7.1	11.8
Total transfer payments .....	125.0	131.6	149.3	162.9
Net advances:				
To the private sector .....	8.2	4.6	6.6	8.5
To public financial enterprises .....	14.8	18.6	25.9	36.6
Total net advances .....	23.0	23.1	32.5	45.2
<b>Total outlay .....</b>	<b>677.4</b>	<b>828.8</b>	<b>1 160.5</b>	<b>1 418.5</b>
Current outlay .....	411.6	512.9	698.6	877.0
Capital outlay .....	265.8	315.8	461.9	541.4

## 11.2 COMMONWEALTH-STATE GOVERNMENTS FINANCIAL RELATIONS

The Commonwealth of Australia Constitution Act and the 1927 Financial Agreement represent significant events in Commonwealth-State financial relations. Under the former, the States surrendered the right to levy customs and excise duties which passed exclusively to the Commonwealth and under the latter, the Commonwealth became the borrowing agent for the States. Further details appear on page 537 of the *South Australian Year Book 1972*.

Since Federation the Commonwealth has made payments of various descriptions to the States. Before the 1939-45 War, Commonwealth payments were confined, for the most part, to special grants to assist the financially weaker States and to certain specific purpose grants relating to such matters as Commonwealth assistance for roads and contributions under the Financial Agreement.

Since the 1939-45 War there has been a marked increase in the amount and variety of Commonwealth assistance to the States. This has reflected, among other things, increases in the range and variety of government activities which have accompanied economic and social developments in this period of rapid growth of the Australian economy; greater participation by the Commonwealth in matters which were previously considered to be the

sole responsibility of the States; and the effects of the introduction and continuation of uniform income tax and of other changes on the basic allocation of financial resources between the Commonwealth and the States.

There are various ways of classifying Commonwealth payments to the States. They may be classified as 'capital' as opposed to 'current' transactions; to general purpose grants compared with payments for purposes specified by the Commonwealth; or in accordance with the constitutional authority under which the payments are made. Many of the recently introduced grants have been for specified purposes and instituted under Section 96 of the Constitution.

### SPECIAL GRANTS

The Constitution provides, in Section 96, for the granting of special financial assistance to the States. Before 1933 financial assistance of varying amounts was granted to South Australia, Western Australia and Tasmania.

In 1933 the Commonwealth appointed the Grants Commission, of three members, to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto. From 1933 to 30 June 1959 applications were lodged by each of the three States already mentioned. South Australia ceased to be a claimant State from 1 July 1959; and at the Premiers' Conference in June 1968, following a request from Western Australia, it was agreed that (subject to certain considerations) claims by Western Australia would cease after payments in respect of 1967-68 leaving Tasmania as the only claimant State during 1968-69 and 1969-70. Following the Premiers' Conference in June 1970 the Government of South Australia decided to again submit a claim; it did this on 6 July 1970. On 30 September 1971 Queensland also made application for a special grant. In 1974, following the Commonwealth's agreement to provide additional financial assistance, Tasmania withdrew from the special grants system. In June 1975, as part of the agreement to transfer its non-metropolitan railway network to the Commonwealth, South Australia again withdrew from the special grants system.

### PERSONAL INCOME TAX SHARING ENTITLEMENT

Financial assistance grants, formerly called tax reimbursement grants, made up the bulk of the assistance provided for general revenue purposes before 1976-77 and were determined annually on the basis of an agreed formula.

A discussion of grants applicable before 1970-71 appears on pages 538-9 of the *South Australian Year Book* 1972. Details of financial assistance grants applicable for 1970-71 and later years appear on pages 596-8 of the *South Australian Year Book* 1975, page 592 of *South Australian Year Book* 1976, and page 638 of *South Australian Year Book* 1977.

From 1976-77 the financial assistance grants were replaced by personal income tax sharing arrangements. The new scheme of assistance was discussed at Premiers' Conferences in February, April and June 1976 and brought into operation from the beginning of 1976-77: it provides for the States to receive a certain percentage of personal income tax collections. For 1976-77 and subsequent years, the Commonwealth has set the States' share of these collections at 33.6 per cent.

From 1977-78, however, in addition to the personal income tax imposed by the Commonwealth, each State has the right to impose a surcharge or grant a rebate on personal income in its State. The Commonwealth remains the sole collecting and administrative authority for all personal income tax.



## Commonwealth Payments To or For the States, South Australia (continued)

Particulars	1966-67	1973-74	1974-75	1975-76	1976-77
SPECIFIC PURPOSE PAYMENTS: RECURRENT PURPOSES (\$'000)					
Sinking fund on State Debt	2 482	3 896	4 072	4 000	3 911
Debt charges assistance	—	5 982	7 478	—	—
Schools	—	6 464	19 017	27 452	35 038
Technical and further education	—	889	2 639	3 770	4 502
Universities	3 668	19 808	38 067	43 107	53 506
Colleges of advanced education	—	13 518	24 531	28 838	38 221
Pre-schools and child care	—	690	3 233	5 025	5 601
School dental scheme	—	1 066	1 700	2 549	3 099
Medibank	—	—	—	92 367	69 394
Employment grants	—	941	3 600	2 400	—
Regional employment development scheme	—	—	1 113	3 294	—
Aboriginal advancement	—	1 003	1 501	2 167	2 515
Local government (Grants Commission)	—	—	4 774	6 785	11 925
Other	3 101	9 646	11 154	13 581	15 821
Total recurrent purposes	9 251	63 903	122 879	235 335	243 533
SPECIFIC PURPOSE PAYMENTS: CAPITAL PURPOSES (\$'000)					
Schools	990	9 430	19 159	11 056	14 672
Technical and further education	750	2 063	2 800	1 208	2 320
Colleges of advanced education	—	6 196	12 579	6 886	4 276
Universities	1 407	7 050	7 320	3 421	3 921
Hospitals	—	441	3 236	12 900	13 000
School dental scheme	—	895	2 247	825	830
Aboriginal advancement	—	3 696	4 058	3 558	3 339
Housing	20 750	32 750	56 360	56 360	56 360
Growth centres	—	4 414	5 829	1 504	980
Land acquisition	—	8 000	19 552	19 892	10 352
Sewerage	—	1 598	5 750	5 700	1 002
Rural reconstruction	—	4 300	2 000	5 100	2 781
Dartmouth Dam	—	950	2 500	2 800	1 875
Urban water supply	—	—	4 400	8 931	9 175
Roads	17 222	31 000	31 046	40 764	38 800
Railway projects	6 929	319	909	4 960	700
Urban public transport	—	—	6 084	6 757	4 420
Other	994	5 297	10 865	12 849	9 976
Total capital purposes	49 042	118 399	196 694	205 471	178 779

(a) From 1976-77 replaced by personal income tax sharing entitlements.

**Schools**

From 1964 the Commonwealth has provided grants to assist education and research in the States. A discussion of grants made from their inception to 1972 appears on page 593 of the *South Australian Year Book 1976*.

On 12 December 1972 the Commonwealth established the Interim Committee for the Australian Schools Commission which has advised on the financial needs of government and non-government schools. The Commission itself was established by the *Schools*

*Commission Act 1973*, which came into effect in December 1973. Initially, grants were made to the States for government schools and for non-government schools on the recommendations of the Interim Committee for the Schools Commission.

The range of assistance has been progressively extended and grants are being made for both government and non-government schools according to the following categories: general recurrent grants, general building grants, and grants for science laboratories and equipment, libraries, schools for the handicapped, disadvantaged schools, migrant children, teacher development, innovatory projects and information programs.

From 1977 the fixed triennial system of the past was converted to a three-year rolling program. Under these arrangements a total of \$595.0 million (at estimated June 1977 prices) is expected to be provided in 1978 as the base program of assistance to the States for schools.

### Universities

Grants to the States for recurrent expenditure of universities commenced in 1951-52; similar grants for capital works and equipment for universities were introduced in 1958. From 1 January 1974 the Commonwealth assumed full financial responsibility for universities.

The *Tertiary Education Commission Act 1977* established the Tertiary Education Commission as a replacement for the Universities Commission, the Commission on Advanced Education and the Technical and Further Education Commission. From 1977 the fixed triennial system of the past was converted to a three-year rolling program. On this basis the financial assistance to the States for universities in 1978 is \$587.9 million (at estimated June 1977 prices).

### Colleges of Advanced Education

Grants to the States for colleges of advanced education commenced in March 1965. These grants were initially for capital purposes but at the start of the 1967-1969 triennium were extended to cover recurrent grants. Total grants for the three calendar years 1973 to 1975 were set at \$798.7 million. This estimate took into consideration the decisions of the Commonwealth to accept full financial responsibility for tertiary education and the abolition of tuition fees from 1 January 1974.

With the replacement of the fixed triennial system by the three-year rolling program, assistance in 1978 is \$445.1 million (at estimated June 1977 prices).

### Medibank

The *Health Insurance Act 1973* authorised the Commonwealth to enter into agreements with the States 'for the provision of hospital services' by the States. Payments to the States under this Act were suspended in May 1976 following legal advice that the agreements negotiated with the States were invalid. As an interim measure, until new cost-sharing arrangements were negotiated with the States, the *States Grants (Hospitals Operating Costs) Act 1976* was passed; this Act authorised payments of up to \$315 million to the States to meet 50 per cent of net operating costs of hospitals incurred before 1 October 1976.

New cost-sharing arrangements under the *Health Insurance Act 1973* became effective on 1 October 1976. The main change from the previous arrangements is that the Commonwealth now meets 50 per cent of budgets as approved by the Commonwealth and State Health Ministers. Total payments to the States in 1976-77 were \$630.2 million, of which South Australia received \$69.4 million.

**School Dental Scheme**

In 1973, agreement was reached between the Commonwealth and the States in respect of a program to provide an Australia-wide School Dental Service. The capital and operating costs of training facilities for dental therapists and capital costs of school dental clinics were borne in full by the Commonwealth, while operation costs of the clinics were shared between the Commonwealth and the States on a \$3 for \$1 basis. From 1 July 1977, under the terms of a revised agreement, the Commonwealth has paid 75 per cent of the capital costs of all new facilities, 75 per cent of the operating costs of the training centres and 50 per cent of the operating costs of the school clinics.

During 1976-77 South Australia was granted \$3.9 million of a total payment to all States of \$22.4 million.

**Unemployment Relief**

In December 1971, the Commonwealth announced grants to be spent on activities which create employment in rural areas. The original plan, subject to later review, provided that for the first seven months South Australia would receive \$945 000.

The monthly rate was subsequently raised in February, June and December 1972. From December 1972 assistance was also provided for the relief of unemployment in metropolitan areas. Grants were phased out during the following years and by 1976-77 no assistance was made to the States under the above programs.

The Regional Employment Development Scheme was introduced during 1974-75 to create employment opportunities in areas of relatively high unemployment. Assistance was provided to local government authorities, State Government departments, public corporations and some non-government bodies. Total payments of \$184.3 million were provided to the States, South Australia receiving \$15.5 million.

**Housing**

Under successive Commonwealth-State Housing Agreements between 1 July 1956 and 30 June 1971, housing advances determined by the States from within their Loan Council allocations were made by the Commonwealth to the States at concessional rates of interest. A new arrangement under the *States Grants (Housing) Act* 1971 applicable from 1 July 1971 provided that the interest concession be replaced by annual grants payable over a period of thirty years. Total recurrent grants paid during 1971-72 were \$4.2 million.

At the June 1973 Premiers' Conference and Loan Council Meeting, the arrangements for housing finance were again changed. Further changes were made in 1973-74 to provide for special advances to the States under a new Housing Agreement and outside the programs determined by Loan Council. Total payments made during 1976-77 were \$380.9 million with South Australia receiving \$0.9 million in the form of grants and \$56.4 million in the form of advances.

**Land Acquisition**

The *Land Commissions (Financial Assistance) Act* 1973 authorised the provision of financial assistance to the States in respect of expenditure by approved State authorities on programs of land acquisition. South Australia was the first State to accept the principles of the Land Commission program and the South Australian Lands Commission began operating in 1973-74.

Total payments made to the States in 1975-76 were \$48.6 million; South Australia's share of this was \$16.9 million, including \$16.4 million in the form of loans and \$0.5 million in the form of grants.

Assistance made by the Commonwealth during 1976-77 was \$13.9 million, including \$5.8 million to South Australia in the form of loans.

### **Growth Centres**

The *Growth Centres (Financial Assistance) Act 1973* provided that the then Minister of Urban and Regional Development may approve programs of financial assistance to the States in respect of the development of eleven specified growth centres.

Payments in 1975-76 were \$60.8 million; assistance on account of Monarto comprised \$0.6 million in the form of loans and \$0.1 million by way of grants. Total payments for Albury-Wodonga during the same period were \$35.1 million.

Assistance made by the Commonwealth during 1967-77 was \$29.9 million with no payment being made to South Australia.

### **Sewerage**

During 1973-74, the Commonwealth introduced a program of assistance to the States designed to eliminate the backlog of sewerage works in principal urban areas.

Total assistance to the States during 1975-76 was \$112.1 million for capital works and \$1.2 million for current purposes; this comprised grants of \$34.8 million and loans of \$78.5 million. South Australia received \$0.1 million for current grants, \$1.7 million for capital grants and \$4.0 million for advances on capital works.

Total payments to the States in 1976-77 consisted of current grants of \$1.5 million, capital grants of \$9.5 million and loans of \$33.8 million. South Australia received \$1.1 million in total.

### **Urban Water Supply**

During 1974-75, an amount of \$4.4 million was advanced to South Australia under the *Urban and Regional Development (Financial Assistance) Act 1974* to assist construction associated with the Adelaide water treatment scheme. Assistance of \$9.2 million was made during 1976-77; this consisted of \$2.8 million in the form of grants and \$6.4 million as advances.

### **Roads**

Grants for road works have been made since 1923, and from 1931 to 1958 were based on a percentage of Commonwealth petrol taxation. A new scheme of assistance to the States for roads was established by the *Commonwealth Aid Roads Act 1959* in which the Commonwealth undertook to provide assistance for five-year periods. As a result of further changes from 1974-75 the Commonwealth has made payments under the *National Roads Act*, the *Roads Grants Act* and the *Transport (Planning and Research) Act*. Total payments of \$442.7 million were made in 1976-77 with South Australia receiving \$39.5 million.

### **Urban Public Transport**

The *States Grants (Urban Public Transport) Act 1974*, and the *Urban Public Transport (Research and Planning) Act 1974* authorised the payment of grants to the States as part of a five-year program to assist in the upgrading of urban public transport (including railways).

In 1974, agreement was reached between the States and the Commonwealth for two-thirds of the costs of approved urban transport projects in the States to be met by the Commonwealth. During 1976-77 assistance of \$58.4 million was made available to the States with South Australia receiving \$4.4 million.

### **Grants Commission**

In 1973, new legislation passed by the Commonwealth Parliament laid down procedures for regional organisations of local government to apply for financial assistance from the



Commonwealth. As a result of evidence placed before the Commonwealth Grants Commission, total grants of \$56.3 million in 1974-75 were recommended to be paid to local government authorities throughout Australia. South Australian authorities received \$4.8 million.

As part of the new personal income tax sharing arrangements between the Commonwealth and the States introduced at the beginning of 1976-77, a new agreement was reached for general assistance to local government authorities; this provided that local government authorities throughout Australia would receive 1.52 per cent of personal income tax in each year. From 1976-77 the Commonwealth Grants Commission has recommended the grant to be paid to each State for assistance to local government authorities in that State. State Grants Commissions subsequently apportion this among separate authorities with consideration to a per capita element and a needs element.

Assistance of \$140.0 million was made in 1976-77 with South Australia receiving \$11.9 million.

### 11.3 STATE GOVERNMENT FINANCE

State Government accounting in South Australia is on a 'cash' basis, revenue not being brought to account until received and expenditure until the actual disbursement is made. Receipts and payments fall into five main divisions, namely the Consolidated Revenue Account and Loan Fund (which together constitute the budget sector), Special Commonwealth Advances, Trust Fund Accounts and Deposit and Suspense Accounts.

#### CONSOLIDATED REVENUE ACCOUNT

This account is credited with receipts from many items of State taxation, fees, licences and charges for services, recoveries of interest and sinking fund, personal income tax-sharing arrangements (originally entitled financial assistance grants) and some other Commonwealth grants. The account is debited with the cost of revenue collection, legislative and administrative functions, interest and sinking fund on the public debt, provision of education, health, social security and welfare and other services, operation of business undertakings and development of State resources. The resultant balance represents the State's surplus or deficit for the year.

#### Consolidated Revenue Account, South Australia

Particulars	1939-40	1949-50	1959-60	1969-70	1976-77
			\$'000		
Receipts .....	25 511	58 721	160 555	338 498	1 174 025
Payments .....	25 837	59 100	161 177	335 578	1 183 180
Surplus (+) or deficit (-):					
Current year .....	-325	-379	-622	+2 920	-9 155
Cumulative .....	+1 999	+3 215	-3 376	-4 579	+18 414
<b>Per Head of Population</b>					
			Dollars		
Receipts .....	42.72	85.50	171.99	293.06	925.16
Payments .....	43.28	86.05	172.65	290.53	932.37

**Receipts**

The receipts for the financial years 1973-74 to 1976-77 were as follows:

**Consolidated Revenue Account: Receipts, South Australia**

Source	1973-74	1974-75	1975-76	1976-77
			\$'000	
Net taxation (a).....	156 903	219 190	272 760	314 280
Business undertakings (b).....	126 120	153 586	126 916	88 983
Territorial: Land sales, rents, etc. ....	3 532	3 299	3 661	4 236
Other:				
Interest and exchange.....	35 312	40 300	46 327	57 096
Fees, fines, rents, etc.....	90 145	100 255	199 034	244 159
Commonwealth grants.....	229 955	312 355	388 287	465 271
<b>Total.....</b>	<b>641 967</b>	<b>828 985</b>	<b>1 036 985</b>	<b>1 174 025</b>

**Per Head of Population**

	Dollars			
Net taxation (a).....	127.91	176.04	217.08	247.66
Business undertakings.....	102.81	123.35	101.01	70.12
Territorial: Land sales, rents, etc. ....	2.88	2.65	2.91	3.34
Other:				
Interest and exchange.....	28.79	32.37	36.87	44.99
Fees, fines, rents, etc.....	73.49	80.52	158.40	192.40
Commonwealth grants.....	187.45	250.87	309.03	366.65
<b>Total.....</b>	<b>523.33</b>	<b>665.80</b>	<b>825.30</b>	<b>925.16</b>

**Proportion of Total Receipts**

	Per cent			
Net taxation (a).....	24.44	26.44	26.30	26.77
Business undertakings.....	19.65	18.53	12.24	7.58
Territorial: Land sales, rents, etc. ....	0.55	0.40	0.35	0.36
Other:				
Interest and exchange.....	5.50	4.86	4.47	4.86
Fees, fines, rents, etc.....	14.04	12.09	19.19	20.80
Commonwealth grants.....	35.82	37.68	37.45	39.63
<b>Total.....</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) For details see table on page 544.



values for 1976-77 are: general purpose inter-authority transfers (\$434 608 000), interest (\$53 736 000), taxation (\$314 280 000) and inter-fund transfers (\$150 974 000). Details for 1975-76 include the effects of the introduction of Medibank and the non-payment of a State Treasury grant to cover the deficit of railway operations.

**Consolidated Revenue Account: Outlay, South Australia<sup>(a)</sup>**

Purpose	1973-74	1974-75	1975-76	1976-77
	\$'000			
General public services:				
General administration n.e.c. ....	19 460	25 997	34 520	39 744
Law, order and public safety .....	31 738	44 381	53 967	68 105
Other general public services .....	14	14	19	23
Education (b) .....	194 097	212 751	272 399	330 015
Health .....	70 474	108 423	173 571	234 189
Social security and welfare .....	15 836	21 326	40 793	36 123
Housing and community amenities:				
Housing .....	1 547	1 705	12 625	11 662
Community and regional development	1 233	1 526	1 837	2 511
Protection of the environment .....	-8 708	-7 334	-10 432	-10 621
Community amenities n.e.c. ....	76	143	185	183
Recreation and related cultural services	7 633	9 936	14 824	17 262
Economic services:				
General administration, regulation and research .....	3 905	5 724	7 056	9 692
Agriculture, forestry and fishing .....	7 995	11 839	14 419	21 320
Mining, manufacturing and construction .....	4 082	4 769	6 536	7 818
Electricity, gas and water .....	-12 348	-8 767	-11 118	-11 572
Transport and communication:				
Rail .....	49 069	67 637	10 144	48 193
Road .....	18 863	24 583	28 893	38 836
Sea .....	-4 440	-3 490	-2 629	-2 536
Urban transit systems .....	2 250	5 900	28 902	12 040
Other transport and communication	86	304	274	338
Other economic services .....	3 324	4 635	15 010	23 219
Other purposes .....	106 157	129 408	134 109	158 665
<b>Total .....</b>	<b>512 343</b>	<b>661 410</b>	<b>825 904</b>	<b>1 035 209</b>

(a) Charges for goods and services supplied have been excluded from receipts and deducted in calculating outlay. Incorporates receipts and operating expenses of public trading enterprises.

(b) From 1 January 1974 the Commonwealth assumed financial responsibility for tertiary education.

### Taxation

Until the introduction of the uniform income tax scheme in 1942-43, income tax was the major source of taxation receipts in South Australia. Receipts from this form of taxation for the years 1939-40 to 1941-42 were \$4 718 000, \$4 952 000 and \$5 638 000 respectively or 51.70 per cent, 57.02 per cent, and 59.45 per cent of total receipts from taxation. The following table shows receipts of taxation into Consolidated Revenue Account over the last five years: receipts of taxation into other accounts are shown on page 552, the major forms of taxation now left to the State are payroll tax, motor tax, succession and stamp duties, and land tax.

Consolidated Revenue Account: Receipts from Taxation, South Australia<sup>(a)</sup>

Tax	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Land tax . . . . .	10 212	10 796	12 673	19 547	18 348
Succession duty . . . . .	11 699	12 598	15 635	19 077	18 905
Gift duty . . . . .	814	1 184	1 197	1 445	1 649
Racing tax . . . . .	1 444	1 643	2 130	2 735	3 051
Motor tax . . . . .	20 832	22 427	29 518	32 206	45 835
Stamp duties (b) . . . . .	30 516	41 899	45 499	64 459	78 391
Payroll tax . . . . .	34 029	52 788	86 759	100 506	114 989
ETSA levy . . . . .	2 242	3 755	4 863	5 810	6 956
Business franchises . . . . .	—	—	8 923	11 636	8 777
Licences:					
Liquor . . . . .	3 650	4 159	5 351	7 424	8 630
Other . . . . .	1 303	1 790	2 231	2 534	2 894
Court fees and fines . . . . .	3 531	3 613	4 135	4 940	5 481
Other . . . . .	201	251	275	440	375
<b>Total . . . . .</b>	<b>120 474</b>	<b>156 903</b>	<b>219 190</b>	<b>272 760</b>	<b>314 280</b>

## Proportion of Total Taxation

	Per cent				
Land tax . . . . .	8.48	6.88	5.78	7.17	5.84
Succession duty . . . . .	9.72	8.03	7.13	6.99	6.02
Gift duty . . . . .	0.67	0.75	0.55	0.53	0.52
Racing tax . . . . .	1.20	1.05	0.97	1.00	0.97
Motor tax . . . . .	17.29	14.30	13.47	11.81	14.59
Stamp duties (b) . . . . .	25.33	26.71	20.76	23.63	24.94
Payroll tax . . . . .	28.24	33.64	39.58	36.85	36.59
ETSA levy . . . . .	1.86	2.39	2.22	2.13	2.21
Business franchises . . . . .	—	—	4.07	4.27	2.79
Licences:					
Liquor . . . . .	3.03	2.65	2.44	2.72	2.75
Other . . . . .	1.08	1.14	1.02	0.93	0.92
Court fees and fines . . . . .	2.93	2.30	1.89	1.81	1.74
Other . . . . .	0.17	0.16	0.12	0.16	0.12
<b>Total . . . . .</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) Excludes stamp duty on third party insurance.

Gift duty is payable under the provisions of the Gift Duty Act, 1968-1976. Stamp duty is payable on a wide range of instalment purchase, leasing and other lending transactions.

In addition to the fields of taxation open to the State Government, there are fields of taxation in which the Commonwealth Government has sole taxing authority, e.g. customs and excise duties and sales tax. Before 1942 the Commonwealth levied income tax in addition to that imposed by the States but since the commencement of uniform taxation the Commonwealth has been the sole levier of income tax. Commencing in 1977-78, under the new personal income tax-sharing arrangements, each State will have the right to



## TRUST FUNDS ACCOUNTS

These are principally moneys lodged with the Treasurer by public authorities and other bodies on current account; funds held for specific purposes pursuant to legislation, not necessarily expendable in any one year; contractors' and statutory deposits and unclaimed moneys. At 30 June 1977 they represented approximately 1.9 per cent of the indebtedness of the South Australian Government. Total balances at 30 June 1975, 1976 and 1977, with many of the larger balances itemised, are shown in the following table.

**Trust Funds Accounts, South Australia**  
**Balances at 30 June**

Particulars	1975	1976	1977
		\$'000	
Fire Brigades Board .....	1 523	2 347	5 343
Institute of Medical and Veterinary Science .....	410	506	515
Pipelines Authority of South Australia .....	2 020	21	—
Planning and Development Fund .....	2 181	2 105	784
Police Pensions Fund .....	648	726	160
South Australian Film Corporation .....	309	434	227
South Australian Housing Trust Fund .....	8 568	7 975	1 887
South Australian Superannuation Fund .....	330	548	2 152
State Bank of South Australia .....	250	250	250
Swine Compensation Fund .....	796	892	996
Other .....	3 830	3 360	4 306
<b>Balances on which interest is paid .....</b>	<b>20 865</b>	<b>19 165</b>	<b>16 620</b>
Commonwealth Grant for Education Purposes .....	8 305	4 683	4 948
Beef Industry Assistance Program .....	1 500	1 164	1 195
Coast Protection Fund .....	1 050	815	661
Crown Solicitors Trust Account .....	2 425	1 245	1 081
Extractive Areas Rehabilitation Fund .....	750	741	521
Kindergarten Union of South Australia .....	—	700	1 412
Lotteries Fund .....	753	1 099	1 192
Medibank Hospital Program .....	—	21 155	2 108
Recoup from Australian National Railways .....	—	—	3 174
Softwood Forestry .....	427	993	993
Urban Transport .....	2 388	—	59
Other .....	6 849	5 712	7 006
<b>Balances on which no interest is paid .....</b>	<b>24 447</b>	<b>38 307</b>	<b>24 350</b>
<b>Total Trust Funds .....</b>	<b>45 312</b>	<b>57 472</b>	<b>40 970</b>

## LOAN FUND ACCOUNTS

These accounts record the capitalised payments for construction or acquisition of assets such as schools, reservoirs, hospitals, forests, plant and stores; advances to public authorities; and for primary production and housing. During recent years some capital grants (e.g. for housing) have also been made from loan funds.

State borrowing programs are subject to consideration and agreement at meetings of the Australian Loan Council. Funds are raised by the sale of Commonwealth securities on

behalf of the State pursuant to the Financial Agreement which also provides for the redemption of such securities over specified periods from sinking funds contributed by the State and Commonwealth Governments to the National Debt Commission. Gross payments for these accounts for the years 1972-73 to 1976-77 are shown in the next table.

**Loan Fund Accounts: Gross Payments, South Australia**

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
	\$'000				
<b>Undertakings:</b>					
Afforestation .....	3 200	3 300	4 700	5 797	6 643
Country water supply and sewers .....	11 541	11 087	16 654	25 452	21 254
Metropolitan water supply and sewers .....	18 971	19 078	31 816	36 724	43 083
Harbours and jetties .....	6 043	6 006	7 220	8 617	8 705
<b>Loans and advances:</b>					
Advances for housing (a)	29 863	20	809	13 016	9 015
Advances to primary producers .....	2 338	2 925	3 034	2 911	2 489
Bus and Tram Division .....	400	4 400	4 400	5 000	1 000
Electricity Trust (b) .....	3 000	3 000	6 000	5 000	6 000
Pipelines Authority .....	—	—	5 000	—	—
Railways (c) .....	5 218	7 950	9 983	11 292	10 508
South Australian Land Commission .....	—	4 125	—	—	1 900
State Bank of SA .....	2 000	2 000	2 000	13 500	2 800
Other loans and advances	1 756	4 901	1 939	1 696	2 096
<b>Other purposes:</b>					
<b>Buildings:</b>					
Hospitals .....	13 873	20 042	25 425	31 875	29 720
Schools .....	29 770	30 741	46 861	48 050	40 481
Other .....	12 259	16 418	22 246	30 076	37 677
Capital Grants (d) .....	14 579	20 246	6 697	11 998	12 337
Community health .....	—	—	—	2 011	919
Effluent drainage .....	—	139	839	1 300	1 450
Irrigation works .....	792	1 609	2 619	3 543	3 601
Parks and reserves .....	901	580	913	2 128	1 250
River Murray, weirs, etc.	814	1 033	2 575	2 923	6 751
School buses .....	448	430	801	1 144	1 579
Stormwater drainage .....	452	753	811	1 094	1 692
Other .....	6 134	7 745	7 859	6 446	8 175
<b>Total .....</b>	<b>164 353</b>	<b>168 526</b>	<b>211 201</b>	<b>271 592</b>	<b>261 125</b>

(a) For 1972-73 allocations for housing were included in the normal State loan works programs.

(b) From 1975-76 includes Leigh Creek Coal Fund.

(c) Includes non-metropolitan rail services funded by the Commonwealth from 1975-76.

(d) From 1 January 1974, following Commonwealth assumption of full financial responsibility for tertiary education, includes only non-government hospital and institution buildings.

The following table shows payments from loan fund accounts for the year ended 30 June 1977 together with credits and net balances.



**Loan Fund Accounts**  
**Gross Payments, Credits, and Net Balances, South Australia, 1976-77**

Particulars	Payments	Credits			Net Aggregate Balance at 30 June
		Repay- ments, etc.	Other (a)	Total	
					\$'000
Undertakings:					
Afforestation .....	6 643	4 188	—	4 188	25 067
Country water supply and sewers .....	21 254	2 781	2 533	5 314	221 819
Metropolitan water supply and sewers .....	43 083	16 073	3 770	19 843	320 831
Harbours and jetties .....	8 705	646	1 104	1 750	87 343
Loans and advances:					
Advances for housing .....	9 015	1 544	9 657	11 201	122 634
Advances to primary pro- ducers .....	2 489	2 054	—	2 054	13 470
Bus and Tram Division .....	1 000	56	103	159	21 931
Electricity Trust (b) .....	6 000	484	1 654	2 138	172 152
Monarto Development Commission .....	—	—	—	—	3 673
Pipelines Authority .....	—	—	—	—	10 500
Railways (c) .....	10 508	3 255	218	3 473	27 059
State Bank of SA .....	2 800	—	130	130	29 322
Other loans and advances	3 996	30	35	65	15 891
Other purposes:					
Buildings:					
Hospitals .....	29 720	16 431	15 240	31 671	57 280
Schools .....	40 481	13 593	31 746	45 339	120 097
Other .....	37 677	3 702	1 875	5 577	161 381
Capital grants (d) .....	12 337	8	12 329	12 337	—
Community health .....	919	609	—	609	850
Effluent drainage .....	1 450	—	1 450	1 450	—
Irrigation works .....	3 601	236	253	489	21 512
Metropolitan floodwaters and drainage .....	37	579	—	579	12 564
Parks and reserves .....	1 250	300	950	1 250	—
River Murray, weirs, etc.	6 751	—	9 951	9 951	6 386
Roads and bridges .....	—	—	177	177	9 057
School buses .....	1 579	—	539	539	3 833
Stormwater drainage .....	1 692	—	1 692	1 692	—
Other .....	8 138	1 221	5 751	6 972	31 085
<b>Total .....</b>	<b>261 125</b>	<b>67 789</b>	<b>101 156</b>	<b>168 945</b>	<b>1 495 737</b>

(a) Includes securities redeemed and cancelled by the National Debt Commission on account of South Australia (\$17 784 000), Capital Works Grants from the Commonwealth (\$59 318 000) and transfer from Revenue Account (\$24 054 000).

(b) Includes Leigh Creek Coal Fund.

(c) Includes non-metropolitan rail services funded by the Commonwealth.

(d) Includes non-government hospital and institution buildings.

#### SPECIAL COMMONWEALTH ADVANCES

Pursuant to agreements with the States, the Commonwealth has made sums available to the State for various purposes. These advances are not subject to sinking fund conditions

but are repayable by annual instalments in terms of the respective agreements. Details of Commonwealth advances, repayments and interest on these advances for the years 1972-73 to 1976-77 are shown in the following table.

**Commonwealth Advances to South Australia, Repayments and Interest  
on these Advances**

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
	\$'000				
<b>Advances:</b>					
Housing (a) .....	500	32 750	56 360	56 360	56 360
Housing for servicemen ..	43	—	130	1 725	2 107
Growth centres .....	—	4 059	4 978	1 399	980
Land acquisition .....	—	8 000	17 518	19 393	10 352
Sewerage .....	—	1 598	4 025	3 990	702
Dartmouth Dam .....	675	950	2 500	2 800	1 875
Rural reconstruction .....	4 575	3 225	1 500	3 825	2 086
Urban water supply .....	—	—	4 400	6 252	6 423
Railway projects .....	131	154	442	1 488	210
Other advances .....	783	252	741	1 485	135
<b>Total advances .....</b>	<b>6 707</b>	<b>50 988</b>	<b>92 594</b>	<b>98 717</b>	<b>81 230</b>
<b>Repayment of advances:</b>					
Housing .....	2 054	2 139	2 398	2 797	3 213
Natural gas .....	1 875	1 875	1 875	1 875	1 875
Railway projects .....	363	365	1 022	—	2
Other repayments .....	81	430	82	311	545
<b>Total repayments .....</b>	<b>4 373</b>	<b>4 809</b>	<b>5 377</b>	<b>4 983</b>	<b>5 635</b>
<b>Interest on advances:</b>					
Housing .....	11 081	11 751	13 391	15 898	18 115
Growth centres .....	—	1	447	841	980
Land acquisition .....	—	—	975	2 987	4 570
Rural reconstruction .....	157	421	565	714	875
Sewerage .....	—	—	75	647	955
Urban water supply .....	—	—	—	418	1 107
Other interest .....	1 866	1 797	1 723	909	1 462
<b>Total interest .....</b>	<b>13 104</b>	<b>13 970</b>	<b>17 176</b>	<b>22 414</b>	<b>28 064</b>

(a) For 1972-73 allocations for housing were included in the normal State loan works programs.

### LOAN RAISINGS AND THE PUBLIC DEBT

#### State Debts Taken Over by the Commonwealth

Under the Financial Agreement the Commonwealth took over on 1 July 1929 State responsibilities to bond-holders in respect of State debts existing on 30 June 1927; and all debts of each State existing on 1 July 1929 for money borrowed by that State are deemed to be money borrowed by the Commonwealth for and on behalf of the State. The Commonwealth agreed to contribute one-third of sinking funds required to repay those debts over a period of fifty-eight years.

Also for a period of fifty-eight years from 1 July 1927 the Commonwealth agreed to contribute the sum of \$15 169 824 (\$1 407 632 for South Australia) each year towards the

interest payable on the State debts. The balance of the interest payable on State debts was to be paid into the National Debt Sinking Fund by the States.

The Commonwealth in 1970 passed legislation providing for its assumption of responsibility for charges on \$200 million of existing State's debt at the beginning of each of the five years commencing 1970-71.

As a result of the transfer of the South Australian non-metropolitan railway system, \$124 000 000 of State debt was taken over by the Commonwealth.

#### **Australian Loan Council**

One of the main features of the Financial Agreement was the establishment of the Australian Loan Council which was set up to co-ordinate the borrowings of the Commonwealth and State Governments. It consists of the Prime Minister of Australia, or another Minister nominated by him in writing, as chairman, and the State Premiers, or Ministers nominated by them in writing.

Each year, the Loan Council examines the loan programs of the Commonwealth and State Governments and determines the total amount to be borrowed during the year. Borrowings by the Commonwealth for defence purposes are not subject to decisions of the Loan Council.

Subject to the decisions of the Loan Council the Commonwealth arranges for all borrowings for or on behalf of itself or any State, and for all conversions, renewals, redemptions, and consolidations of the securities issued on behalf of the Commonwealth and State Governments. If the Loan Council unanimously decides, however, a State may borrow outside Australia in its own name, and may issue securities for the amount so borrowed. The Commonwealth then guarantees that the State will fulfil its obligations to bond-holders in respect of the money so borrowed, and the money is deemed to be borrowed by the Commonwealth for and on behalf of the State.

Subject to any maximum limits decided upon by the Loan Council for interest, brokerage, discount, and other charges, the Commonwealth or any State Government may borrow within its own territory, for any purpose, money from any authorities, bodies, funds, or institutions (including savings banks) constituted or established under Commonwealth or State law or practice; borrow from the public by means of counter sales of securities; and use any available public moneys. However, any securities issued for moneys so borrowed or used must be Commonwealth Government securities on terms approved by the Loan Council.

Since 1936 the Australian Loan Council has, by the consent of its members, exercised substantial control over the limits of borrowing by local government and public corporations.

#### **National Debt Commission**

The National Debt Commission and the National Debt Sinking Fund, which it administers, were created under the *National Debt Sinking Fund Act 1923*. All previously existing sinking funds relating to Commonwealth debt were merged in the National Debt Sinking Fund at the time of its establishment; and under the provisions of the Financial Agreement of 1927 all relevant interest and principal contributions by both the Commonwealth and State Governments, in respect of State debts, are negotiated through the Fund.

These contributions are not accumulated but are applied by the Commission to the redemption of the public debts of the States, and the repurchase of securities issued in respect thereof. Under the provisions of the Financial Agreement, repurchased or redeemed securities must be cancelled, and the debts of the States are reduced accordingly.

Contributions by the Commonwealth on behalf of South Australia, and by the State Government to the National Debt Sinking Fund, and redemptions and repurchases of securities by payment from the Fund for the financial years 1975-76 and 1976-77 are given in the following table. Corresponding figures for all States are also stated.

**National Debt Sinking Fund**

Particulars	1975-76		1976-77	
	South Australia	All States	South Australia	All States
<b>Receipts:</b>		\$'000		
Contributions by Commonwealth .....	4 000	30 200	3 911	31 635
Contributions by State .....	16 100	121 500	15 717	127 651
4½ per cent contributions by State on cancelled debt .....	—	9	—	—
Interest received from State in respect of repurchased securities to date of cancella- tion of securities .....	1	18	—	—
Interest on the temporary investments of State funds during the year .....	27	192	18	117
<b>Total receipts .....</b>	<b>20 129</b>	<b>151 919</b>	<b>19 646</b>	<b>159 404</b>
<b>Expenditure:</b>				
Redemptions and repurchases;				
In Australia .....	16 284	121 043	16 367	117 582
In London .....	629	5 425	188	16 784
In New York .....	840	7 380	857	7 439
In Canada .....	34	257	22	164
In Netherlands .....	84	654	89	698
In Switzerland .....	2 154	15 993	—	—
<b>Total expenditure .....</b>	<b>20 025</b>	<b>150 752</b>	<b>17 523</b>	<b>142 668</b>

**The Loan Fund**

A summary of loan raisings to finance State Government loan works in South Australia during 1976-77 is given in the following statement.

**The Loan Fund, South Australia**

	\$'000
(1) <i>Cash operations:</i>	
Deficit at 30 June 1976 .....	8 855
Receipts:	
New loan raising .....	118 819
Repayments .....	67 789
Capital works grant .....	59 318
Transfer from Consolidated Revenue .....	24 054
	269 980
Payments .....	261 125
Balance at 30 June 1977 .....	—

## The Loan Fund, South Australia (continued)

	\$'000
(2) Movement in public debt:	
The public debt at 30 June 1976 .....	1 394 702
Add: Face value of new loans raised:	
For cash .....	118 819
For conversion .....	155 117
	1 668 638
Less: Face value of securities redeemed and cancelled by	
National Debt Commission .....	17 784
Loans converted .....	155 117
	172 901
The public debt at 30 June 1977 .....	1 495 737

## The Public Debt

The following table gives details of the public debt and total indebtedness of South Australia at 30 June 1977 and for the four previous years.

## Public Debt and Total Indebtedness, South Australia

At 30 June	Public Debt—Being Interest Bearing Securities Outstanding		Other Interest Bearing Indebted- ness (a)	Non- interest Bearing Indebted- ness (a)	Total Indebtedness	
	Total	Per Head			Total	Per Head
	\$'000	\$			\$'000	\$
1973.....	1 415 129	1 161-94	330 521	8 842	1 754 492	1 440-59
1974.....	1 481 337	1 198-30	362 977	14 830	1 859 143	1 503-92
1975.....	1 555 333	1 242-18	451 080	24 447	2 030 859	1 621-96
1976.....	1 394 702	1 105-50	523 152	38 307	1 956 161	1 550-54
1977.....	1 495 737	1 171-10	601 152	24 350	2 121 240	1 660-85

(a) Gross less securities held on these accounts.

## DEPOSIT AND SUSPENSE ACCOUNTS

Reference to these accounts was made in Part 11.1. Although the main function of many of them is to facilitate the allocation of charges and recoups to various headings of receipts and payments within the Budget sector, some contain, as already noted, substantial transactions which are not reflected in the Budget. Deposit and Suspense Accounts showed a credit balance of \$50 402 000 at 30 June 1977.

## STATE TAXATION

In addition to those items received into Consolidated Revenue Account the State Government receives certain items of taxation into other accounts. These, together with similar receipts by public corporations, constitute 'total taxation to other accounts' as recorded in the following table.

State Taxation, South Australia<sup>(a)</sup>

Tax	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
To Consolidated Revenue . . .	120 474	156 903	219 190	272 760	314 280
To other accounts:					
Road maintenance charges	3 401	3 859	4 050	4 243	4 716
Lottery tax . . . . .	1 967	2 351	3 648	4 978	5 661
Racing taxes . . . . .	3 745	4 613	6 169	7 122	8 160
Stamp duty . . . . .	1 138	1 251	1 643	2 072	2 101
Fire insurance contri- butions (b) . . . . .	1 840	2 586	4 597	6 088	8 809
Reserves contributions (c)	561	1 010	1 109	1 165	1 169
Other . . . . .	403	472	679	1 175	1 566
Total to other accounts	13 056	16 141	21 894	26 843	32 182
Total taxation . . . . .	133 529	173 044	241 084	299 603	346 462
			Dollars		
Per head of population . . . . .	110.35	141.06	193.63	238.44	273.02

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) Levy on insurance companies.

(c) Paid to State Planning Authority under Planning and Development Act and Real Property Act.

## 11.4 PUBLIC CORPORATION FINANCE

For the purpose of determining the scope of public corporation finance statistics, a public corporation is defined as a body (other than a local government authority) created by or under legislation to carry out an activity or activities on behalf of a government, or a body in which a government has a controlling interest.

Many public corporations produce annual reports reviewing their activities and most of them publish financial statements. In South Australia there is no consolidated tabulation of statistics covering revenue and expenditure of public corporations.

Activities carried out by public corporations include tertiary education, hospital services, power supply, public transport, banking services, fire control, irrigation and drainage in rural areas, control and regulation of milk supply, slaughtering of animals for human consumption, housing development, off-course totalisators and lotteries, and investigation of problems relating to the development of mineral resources.

### Business Undertakings

Some public corporations are classified as business undertakings because they seek to cover a substantial part of their cost by selling goods and services to the public. The following tables show revenue and expenditure of some of those business undertakings for the financial years 1972-73 to 1976-77. Capital indebtedness refers to the amount outstanding at the end of the relevant period on indebtedness incurred initially for a period exceeding twelve months.

Electricity Trust of South Australia<sup>(a)</sup>

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Income .....	80 290	92 178	108 492	130 401	153 950
Operating expenses .....	62 040	72 594	91 149	108 017	128 635
Surplus on operating .....	18 250	19 584	17 343	22 384	25 315
Debt interest .....	17 841	18 650	19 758	22 136	24 791
Net surplus .....	409	934	-2 415	248	524
Capital indebtedness .....	312 215	318 788	332 439	353 759	371 932

(a) From 1975-76 includes Leigh Creek Coal Fund which was dissolved on 1 July 1975.

## State Bank of South Australia

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Income .....	12 141	14 783	20 055	23 166	30 200
Management expenses, etc. ....	2 270	2 733	3 946	5 083	5 632
Interest on customers' deposits ....	1 549	2 074	3 809	4 788	7 955
Interest on advances from the Treasurer of SA .....	7 118	7 952	9 376	11 104	13 291
Net profit .....	1 205	2 024	2 924	2 191	3 323
Capital indebtedness .....	149 700	169 469	197 236	238 066	267 588

## Pipelines Authority of South Australia

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Income .....	3 990	7 107	17 451	24 493	34 102
Operating expenditure .....	1 363	4 250	15 101	19 321	28 911
Surplus on operating .....	2 628	2 857	2 351	5 172	5 191
Interest on loan capital .....	2 628	2 704	3 094	4 105	4 706
Net surplus .....	—	153	-743	1 067	486
Capital indebtedness .....	44 046	44 431	54 359	59 190	63 892

## South Australian Housing Trust

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Income .....	21 939	24 820	28 617	36 897	44 836
Expenditure .....	11 091	12 657	16 625	19 921	26 565
Surplus on operating .....	10 848	12 162	11 992	16 976	18 271
Interest on loan capital .....	11 471	11 699	12 514	14 487	15 863
Net surplus .....	-623	463	-522	2 489	2 408
Capital indebtedness .....	294 341	317 445	353 860	407 977	452 299

## Savings Bank of South Australia

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Income .....	33 148	40 385	53 890	68 096	78 040
Management expenses, etc. ....	11 259	13 556	17 523	22 859	25 301
Interest on customers' deposits ....	20 067	25 577	35 445	42 716	47 074
Net profit .....	1 821	1 252	922	2 520	5 665
Depositors' balances (a) .....	537 953	591 822	697 459	776 473	842 842

(a) At end of period. Figures include deposit stock.

South Australian Meat Corporation<sup>(a)</sup>

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Income .....	11 026	10 633	13 757	19 495	24 521
Operating expenses .....	10 973	10 452	12 793	18 301	25 248
Surplus on operating .....	53	181	964	1 194	-727
Interest .....	124	303	705	619	1 716
Net deficit .....	71	122	-259	-575	-2 443
Capital indebtedness .....	2 662	6 080	12 469	16 323	18 608

(a) From 8 March 1977 includes the operations of Port Lincoln division of State Produce Branch.



State Transport Authority—Bus and Tram Division<sup>(a)</sup>

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Income .....	7 304	9 958	13 427	14 454	16 782
Operating expenses .....	8 269	11 735	18 951	22 446	27 711
Deficit on operating .....	965	1 777	5 524	7 991	10 929
Interest charges .....	406	469	874	1 230	1 781
Deficit .....	1 371	2 246	6 398	9 221	12 710
Grant from SA Government	1 330	2 250	5 900	8 800	12 040
Transfer from reserve .....	—	—	488	394	402
Contribution (b) .....	—	—	—	102	—
Net deficit .....	41	—4	10	—75	268
Capital indebtedness .....	7 596	11 920	16 219	21 090	21 931

(a) Formerly the Municipal Tramways Trust.

(b) Contribution from State Government for revenue projects.

## GRANTS FROM STATE GOVERNMENT

The following table shows grants to a number of public corporations during each of the five years ended 30 June 1977.

## Public Corporations: Grants From State Government, South Australia

Name	1972-73	1973-74	1974-75	1975-76	1976-77
			\$'000		
Adelaide Festival Centre Trust ....	312	812	1 126	2 608	2 624
Coast Protection Board (a) .....	600	676	281	245	272
Fire Brigades Board .....	410	590	872	1 194	1 760
Institute of Medical and Veterinary Science .....	2 290	3 342	5 392	1 010	1 120
State Transport Authority: Bus and Tram Division .....	1 330	2 250	5 900	8 800	12 040
Rail Division (b) .....	—	—	—	—	48 377
SA Film Corporation .....	25	505	720	1 238	1 377
SA Institute of Technology .....	4 803	6 679	579	561	718
SA Theatre Company .....	140	293	466	498	660
State Planning Authority .....	300	300	300	300	300
Subsidised hospitals .....	2 040	2 385	4 197	9 364	8 644
Other (c) .....	714	466	927	1 799	3 607
Total .....	12 964	18 298	20 760	27 617	81 499

(a) Includes advances from State Loan Fund that are cleared of liability by allocations from Commonwealth capital works grants.

(b) Before July 1976 all transactions of the Railways were part of Consolidated Revenue Account.

(c) Includes Unemployment Relief Grants paid to various public corporations (\$1 473 000 in 1976-77).

Grants from Consolidated Revenue Account and from Loan Fund have been consolidated and the figures represent actual amounts paid to authorities, free of all duplication. Payments for goods and services supplied by public corporation business undertakings are not included in the table. Repayable advances from Loan Fund are also excluded. The table excludes grants to universities and hospitals other than subsidised hospitals, as for the purpose of Public Finance statistics these amounts are considered to be final expenditure. Details of grants made to colleges of advanced education before 1 January 1974 are also excluded because from that date the Commonwealth Government assumed full financial responsibility for all tertiary education.

#### LOAN RAISINGS AND DEBT OUTSTANDING

Details of public corporation loan raisings and debt outstanding are included in the following tables. New loans raised during the year include new loan liabilities incurred during the year, loans raised to repay indebtedness to the Government, and interest capitalised. Loans raised and redeemed within the year, increases in overdrafts, and loans raised for conversion or redemption of existing debts are excluded.

Debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalised, and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more, have also been included. Current liabilities such as interest accrued (but not capitalised), trade creditors, amounts held in trust and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds, less all bank credit balances (including fixed deposits), which do not form part of a sinking fund to repay a loan.

The next two tables show, respectively, new money loan raisings and funds provided for redemption of debt for the year ended 30 June 1976 and debt outstanding at 30 June 1975 and 1976.

#### Public Corporations: New Money Loan Raisings and Funds Provided for Redemption of Debt, South Australia, 1975-76

Activity	New Loan Raisings in Australia			Funds for Redemption of Debt (a)		
	From Government Lenders	Other	Total	To Government Lenders	Other	Total
	\$'000					
Abattoirs .....	—	4 000	4 000	39	106	144
Banking .....	40 643	4 150	44 793	3 733	230	3 963
Buses and trams .....	5 000	—	5 000	128	—	128
Community and regional development .....	18 007	3 400	21 407	350	36	386
Electricity supply .....	2 590	16 558	19 148	1 965	1 285	3 249
Gas pipelines .....	—	5 225	5 225	250	144	394
Housing .....	48 285	9 145	57 430	2 334	979	3 314
Other .....	305	6 884	7 189	14	178	193
<b>Total .....</b>	<b>114 830</b>	<b>49 362</b>	<b>164 192</b>	<b>8 813</b>	<b>2 958</b>	<b>11 771</b>

(a) Includes amounts credited to Sinking Funds and excludes amounts redeemed from Sinking Funds.

## Public Corporations: Debt Outstanding, South Australia

Activity	Debt in Australia at					
	30 June 1975			30 June 1976		
	To Government Lenders	Other	Total	To Government Lenders	Other	Total
	\$'000					
Abattoirs .....	1 896	10 573	12 469	1 857	14 467	16 324
Banking .....	195 086	2 150	197 236	231 996	6 070	238 066
Buses and trams .....	16 219	—	16 219	21 090	—	21 090
Community and regional development ...	41 238	6 541	47 779	58 895	9 905	68 800
Electricity supply .....	158 692	174 147	332 839	168 290	185 653	353 943
Gas pipelines .....	19 875	34 484	54 359	18 000	41 190	59 190
Housing .....	273 111	80 749	353 860	319 062	88 914	407 976
Other .....	10 132	15 948	26 080	3 673	22 938	26 610
Total debt.....	716 250	324 590	1 040 840	822 863	369 137	1 191 999
	Annual Interest Payable (\$'000)					
Total interest .....	36 558	22 674	59 231	42 329	27 707	70 037

## 11.5 LOCAL GOVERNMENT FINANCE

For the purpose of determining the scope of local government finance statistics, a local government authority is defined as:

- (i) An authority set up under a local government Act to carry out the functions of local government in a defined area (known as a municipality or district council area) and the members of which are elected by persons enrolled as electors for the House of Assembly in respect of an address within the area, or who are ratepayers in respect of ratable property within the area. A body corporate is enrolled under the name of a nominated agent;
- (ii) An authority created or acquired by a local government authority (as defined above) or by two or more local government authorities. (In South Australia an authority established under Part XIX or Section 666(c) of the Act.)

## REVENUE AND EXPENDITURE

The expenditure of moneys by local government bodies is authorised by the Local Government Act, 1934-1978. Under the Act each council is required to prepare a balance sheet and statement of its accounts on an accrual basis for each financial year and these statements are the basis of the statistics published on local government finance.

**Assessments**

Assessments for property rating are based upon annual value or land value. Annual value is based on the estimated gross annual rental at which a ratable property would be let from year to year with an allowance, not exceeding one-quarter, to cover all outgoings; whereas land value is an estimate of the value of the land (regardless of structural improvements) included in a property. A council may adopt the 'annual' valuations or the 'land' valuations of the State Valuer-General or may make its own valuation of properties.

**Rating of Properties**

A council may declare general or differential rates on properties in its area. Special rates may be levied for street watering or other purposes.

**Revenue Transactions**

The following tables show revenue transactions for local government authorities for 1975-76 prepared on an accrual basis.

**Local Government Authorities**  
**General Fund, Reserve Fund and Government Grants Fund, Income**  
**South Australia, 1975-76**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
<b>Taxation:</b>			
<b>Rates;</b>			
Declared for year .....	47 105	18 151	65 256
Fines on overdue rates .....	110	56	166
<i>Ex gratia</i> payments in lieu of rates .....	154	95	249
<b>Total rates .....</b>	<b>47 369</b>	<b>18 301</b>	<b>65 670</b>
<b>Licences and permits;</b>			
Building .....	961	182	1 143
Dog .....	134	74	208
Other .....	102	60	162
<b>Total licences and permits .....</b>	<b>1 197</b>	<b>316</b>	<b>1 514</b>
<b>Total taxation .....</b>	<b>48 567</b>	<b>18 617</b>	<b>67 184</b>
<b>Public works:</b>			
<b>Reimbursements for roadworks;</b>			
State Government (b) .....	1 927	1 103	3 030
Ratepayers (moieties) .....	755	227	982
Other .....	3 900	661	4 561
Sewerage and effluent drainage fees .....	326	544	870
Stormwater drains .....	771	1 100	1 871
<b>Total public works .....</b>	<b>7 680</b>	<b>3 634</b>	<b>11 314</b>

**Local Government Authorities**  
**General Fund, Reserve Fund and Government Grants Fund, Income**  
**South Australia, 1975-76 (continued)**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
<b>Public services and council properties:</b>			
Care of aged persons .....	820	751	1 571
Child care centres .....	100	318	418
Commercial properties n.e.c. ....	94	195	289
Ferries .....	—	702	702
Fire protection .....	91	166	256
Foreshore .....	109	112	221
Halls and theatres .....	666	198	863
Hospitals and health (including cemeteries)	201	171	373
Houses .....	502	114	616
Libraries .....	586	118	704
Parks, gardens, recreation, etc. ....	2 719	2 765	5 484
Sanitary and garbage .....	239	168	407
Swimming pools .....	249	193	441
Tourism .....	17	192	210
Traffic and parking .....	3 651	25	3 676
Other (c) .....	2 728	3 686	6 413
<b>Total council properties .....</b>	<b>12 773</b>	<b>9 871</b>	<b>22 644</b>
<b>Government grants for roadworks:</b>			
Grants (d) .....	1 061	3 035	4 096
Reimbursements (e) .....	970	1 222	2 193
<b>Total Government grants for road- works .....</b>	<b>2 031</b>	<b>4 258</b>	<b>6 289</b>
<b>Other income:</b>			
Fines (mainly traffic and parking) .....	1 085	25	1 111
Grants Commission grants .....	3 623	3 162	6 785
Interest .....	1 640	299	1 939
Reimbursements for private works .....	788	1 079	1 867
Sale of council properties .....	1 437	311	1 748
Other .....	1 466	941	2 407
<b>Total other income .....</b>	<b>10 040</b>	<b>5 818</b>	<b>15 857</b>
<b>Total income .....</b>	<b>81 090</b>	<b>42 197</b>	<b>123 287</b>

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudla Wirra. (b) Mainly reinstatements. (c) Includes income from Regional Employment Development Scheme allocated to 'Council Properties'. (d) Other grants and subsidies are included under respective functional headings above. (e) For work done on behalf of Highways Department.

**Local Government Authorities**  
**General Fund, Reserve Fund and Government Grants Fund, Expenditure**  
**South Australia, 1975-76**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
General administration .....	7 051	4 402	11 453
Debt services:			
Interest;			
On loans .....	4 792	1 078	5 870
On overdraft .....	62	143	204
Principal redeemed .....	3 312	2 044	5 356
Total debt services .....	8 165	3 265	11 430
Public works:			
Roads, streets and bridges;			
Construction .....	11 038	7 273	18 311
Maintenance .....	8 237	6 300	14 537
Sewerage and effluent drains;			
Construction .....	197	1 201	1 398
Maintenance .....	5	109	115
Contributions to stormwater drainage schemes (b) .....	3 884	826	4 710
Net plant expenditure .....	66	68	134
Total public works .....	23 428	15 777	39 205
Public services and council properties:			
Current;			
Building Act .....	1 061	251	1 312
Care of aged persons .....	66	49	115
Commercial properties n.e.c. ....	88	339	427
Ferries .....	—	652	652
Fire protection .....	1 066	553	1 619
Halls and theatres .....	1 060	494	1 554
Hospitals and health (including cemeteries, etc.) .....	2 820	1 387	4 206
Houses .....	454	120	575
Libraries .....	1 209	290	1 499
Markets .....	113	—	113
Parks, gardens, recreation, etc. ....	10 144	4 150	14 294
Sanitary and garbage .....	3 943	922	4 865
Street cleaning .....	651	22	673
Street lighting .....	1 529	413	1 942
Swimming pools .....	525	202	727

**Local Government Authorities**  
**General Fund, Reserve Fund and Government Grants Fund, Expenditure**  
**South Australia, 1975-76 (continued)**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
Public services and council properties (continued):			
Tourism .....	47	229	277
Town planning .....	1 172	140	1 313
Traffic and parking .....	2 151	52	2 203
Vermin control .....	35	139	173
Weed control .....	199	603	802
Other .....	254	641	895
Capital (c):			
Land and buildings,			
Care of aged persons .....	856	738	1 594
Child care centres .....	209	138	346
Council properties and depots .....	721	53	774
Halls and theatres .....	274	78	352
Houses .....	787	69	857
Parks, gardens, recreation, etc. ....	2 477	1 127	3 603
Traffic and parking .....	155	—	155
Other .....	377	392	769
Plant and machinery,			
Roadmaking .....	2 019	1 125	3 144
Other .....	669	200	869
Other assets .....	859	129	988
Total public services and council properties .....	37 991	15 695	53 686
Other expenditure:			
Cost of private works .....	884	1 032	1 916
Donations to charitable organisations, clubs etc. ....	105	78	183
Unallocated indirect expenditure .....	1 903	1 617	3 520
Other .....	413	155	568
Total other expenditure .....	3 305	2 883	6 188
<b>Total expenditure .....</b>	<b>79 940</b>	<b>42 022</b>	<b>121 962</b>

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudla Wirra.

(b) Expenditures in respect of South-Western Suburbs Drainage Scheme are included under debt services above.

(c) These values are understated to the extent that some councils report expenditures net of trade-ins.

### Government Grants

Local government authorities receive general purpose and specific purpose grants from the Commonwealth and State Governments. Some Commonwealth grants are paid direct

to local government authorities while the remainder are paid to the State Government for on-passing to the relevant authorities.

The following table shows Commonwealth grants paid direct to local government authorities for the last three years.

#### Commonwealth Grants Paid Direct to Local Government Authorities

Grant	1974-75	1975-76	1976-77
		\$'000	
Aged or disabled persons homes .....	367	1 008	1 711
Child care and pre-schools .....	155	604	904
Aboriginal advancement .....	225	163	27
Aerodrome local ownership plan .....	23	41	42
Regional Employment Development Scheme .....	3 596	6 363	—
Community Youth Support Scheme .....	—	—	13
Nursing homes .....	—	—	99
Community arts activities .....	—	5	15
Total .....	4 366	8 184	2 811

Details of the amounts on-passed by the State Government during the last three years are given in the following table. These grants are included with the grants to State and local government authorities shown on page 535.

#### Commonwealth Grants On-passed by the State Government to Local Government Authorities

Grant	1974-75	1975-76	1976-77
		\$'000	
Senior citizens centres .....	423	673	172
National Estate .....	92	30	45
Capital assistance for leisure facilities .....	284	694	393
Grants Commission .....	4 774	6 785	11 925
Regional organisations assistance .....	66	24	—
Area improvement .....	292	679	30
Tourism development .....	58	134	—
Pre-school and child care .....	—	50	50
Total .....	5 989	9 069	12 615

The State Government also makes various grants to local government authorities. Details of these grants made over the last three years are shown in the following table.



## State Government Grants Paid to Local Government Authorities

Grant	1974-75	1975-76	1976-77
		\$'000	
Civil defence .....	9	11	14
Libraries .....	317	699	534
Roads .....	3 981	4 713	5 940
Urban stormwater drainage .....	811	1 094	1 692
Urban effluent drainage .....	839	1 300	1 450
Weed control .....	156	223	248
Public parks and parklands maintenance .....	386	944	659
Fire protection .....	151	197	259
Unemployment relief (a) .....	1 373	5 859	7 271
Swimming pools .....	7	—	—
Tourism .....	132	196	355
Sporting and recreation facilities .....	281	556	387
Senior citizens centres .....	56	86	95
Rundle Street Mall .....	40	202	101
Festival Theatre .....	76	—	—
Debt Servicing (Festival Theatre) .....	148	148	148
Provision for the arts .....	—	20	2
Residential rate rebate .....	—	50	60
Rehabilitation of land .....	—	—	240
<b>Total .....</b>	<b>8 763</b>	<b>16 298</b>	<b>19 455</b>

(a) Includes \$1 373 000 in 1974-75 and \$2 487 000 in 1975-76 from Commonwealth grants to the State for unemployment relief.

## LOAN FUND INCOME AND EXPENDITURE

The following table shows the major items of loan fund income and expenditure for 1975-76 prepared on an accrual basis.

**Local Government Authorities: Loan Fund Income and Expenditure  
South Australia, 1975-76**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
<b>Income:</b>			
Loans raised .....	11 173	5 774	16 947
Other .....	715	3	718
<b>Total income .....</b>	<b>11 888</b>	<b>5 778</b>	<b>17 665</b>

**Local Government Authorities: Loan Fund Income and Expenditure  
South Australia, 1975-76 (continued)**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
<b>Expenditure:</b>		\$'000	
Public works;			
Roads, streets and bridges,			
Construction .....	3 660	516	4 177
Maintenance .....	277	59	336
Stormwater drains .....	1 669	256	1 925
Sewerage and effluent drains .....	17	491	509
<b>Total public works ...</b>	<b>5 623</b>	<b>1 322</b>	<b>6 945</b>
Construction or purchase of assets;			
Land and buildings,			
Development projects .....	1 381	—	1 381
Halls and theatres .....	142	183	324
Houses .....	170	106	277
Libraries .....	583	—	583
Offices and depots .....	552	78	630
Parks, gardens, recreation, etc.	1 298	1 044	2 343
Traffic and parking .....	2 274	9	2 284
Other .....	661	1 002	1 663
Plant and machinery,			
Roadmaking .....	171	1 235	1 406
Other .....	28	17	44
Other assets .....	317	85	402
<b>Total construction or       purchase of assets ...</b>	<b>7 578</b>	<b>3 758</b>	<b>11 335</b>
Business undertakings (b) .....	—	476	476
<b>Total expenditure ...</b>	<b>13 201</b>	<b>5 556</b>	<b>18 756</b>

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudla Wirra. (b) Includes land, buildings, plant, etc.

The principal source of income was from new money loan raisings (\$16 947 000), while the major expenditure items were the construction of roads, streets and bridges (\$4 177 000) and the provision of recreation facilities (\$2 343 000).

#### LOAN RAISINGS AND DEBT OUTSTANDING

Local government authorities loan raisings and debt outstanding are shown in the following tables. The definitions of 'new loans raised' and 'debt', given on page 556 under 'Loan Raisings and Debt Outstanding', apply to the statistics in this section also.

The table below shows new money loan raisings and funds provided for redemption of debt for the years 1966-67 to 1975-76.

**Local Government Authorities: New Money Loan Raisings and Funds Provided for Redemption of Debt, South Australia**

Year	New Loan Raisings in Australia			Funds for Redemption of Debt (a)		
	From Govt	Other	Total	To Govt	Other	Total
	\$'000					
1966-67 .....	2 291	6 981	9 272	1 101	1 817	2 917
1967-68 .....	1 027	7 365	8 392	1 009	1 853	2 862
1968-69 .....	470	7 455	7 925	905	2 068	2 973
1969-70 .....	504	9 430	9 934	822	2 481	3 303
1970-71 .....	939	10 338	11 277	671	2 851	3 522
1971-72 .....	328	10 111	10 439	537	3 409	3 946
1972-73 .....	290	9 546	9 836	520	3 809	4 329
1973-74 .....	30	10 815	10 845	367	3 971	4 338
1974-75 .....	40	13 979	14 019	335	4 476	4 811
1975-76 .....	140	16 807	16 947	265	5 191	5 456

(a) Includes amounts credited to Sinking Funds and excludes amounts redeemed from Sinking Funds: both these figures are small in South Australia.

(b) Includes South-Western Suburbs Drainage Scheme.

The following table shows for local government authorities total debt outstanding and annual interest payable on this debt for the years 1966-67 to 1975-76.

**Local Government Authorities: Debt Outstanding and Annual Interest Payable, South Australia**

Year	Debt in Australia			Annual Interest Payable		
	To Govt	Other	Total	To Govt	Other	Total
	\$'000					
1966-67 .....	7 368	36 350	43 718	324	1 980	2 305
1967-68 .....	7 380	42 079	49 459	337	2 323	2 660
1968-69 .....	6 956	47 479	54 435	316	2 645	2 961
1969-70 .....	6 637	54 389	61 025	290	3 106	3 396
1970-71 .....	6 914	62 198	69 112	304	3 719	4 023
1971-72 .....	6 798	69 007	75 806	300	4 240	4 539
1972-73 .....	6 581	74 951	81 535	289	4 627	4 915
1973-74 .....	4 639	82 119	86 758	203	5 261	5 465
1974-75 .....	2 652	91 953	94 605	111	6 395	6 506
1975-76 .....	2 520	104 111	106 631	121	7 848	7 969

(a) Includes South-Western Suburbs Drainage Scheme.

## BUSINESS UNDERTAKINGS

Some local government authorities operate electricity undertakings and quarries. Expenditure by authorities for goods and services supplied by their business undertakings are included both in expenditures from general, etc. funds and in income of the business undertakings. Loan raisings and subsequent expenditures are included under Loan Fund income and expenditure.

**Local Government Authorities: Business Undertakings, Income and Expenditure  
South Australia, 1975-76**

	\$'000
Current account transactions (a):	
Electricity undertakings;	
Current income,	
Electricity sales .....	1 517
Other .....	965
Total current income .....	2 482
Current expenditure,	
Generation and distribution .....	1 285
Purchase of electricity .....	489
Debt services,	
Interest .....	267
Principal redeemed .....	189
Administration and other .....	457
Total current expenditure .....	2 686
Deficit .....	204
Quarries;	
Current income .....	86
Current expenditure .....	138
Deficit .....	53
<b>Deficit (all undertakings) .....</b>	<b>256</b>

(a) Transactions relating to construction or purchase of capital assets are not taken into account in arriving at surplus or deficit.

## 11.6 AUSTRALIAN NATIONAL ACCOUNTS

National accounting aims at providing a systematic summary of the transactions taking place in the economy, especially of those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

### Concepts

The fundamental concepts of domestic product and national income and expenditure are described below.

*Gross Domestic Product at Market Prices* (usually referred to as Gross Domestic Product) is defined as the total market value of goods and services produced in Australia after deducting the cost of goods and services used up in the process of production but before deducting allowances for the consumption of fixed capital. It is the sum for all producers of the value of their sales (including any indirect taxes levied thereon), plus increases in their stocks, less their purchases of intermediate goods and services from other producers. For those producers, like general government, who do not generally sell their output, it includes output valued at cost instead of sales.

*Gross Domestic Product at Factor Cost* is that part of the cost of producing the Gross Domestic Product which consists of gross payments to factors of production (labour, land, capital and enterprise). It represents the value added by these factors in the process of production and is equivalent to Gross Domestic Product less indirect taxes plus subsidies. *Gross Farm Product at Factor Cost* is that part of Gross Domestic Product at Factor Cost arising from production in rural industries.

*Domestic Factor Incomes* is that part of the value added within a given period by factors of production which accrues as income to their suppliers after allowing for the depreciation of fixed capital. It is equivalent to Gross Domestic Product at Factor Cost less depreciation allowances.

*National Income* is the net income accruing within a given period to Australian residents from their services in supplying factors of production in Australia or overseas plus indirect taxes less subsidies. It is equivalent to Domestic Factor Incomes plus indirect taxes less subsidies and net income paid overseas. It is also equivalent to Gross Domestic Product less depreciation allowances and net income paid overseas.

*National Disposable Income* is the net income accruing within a given period to Australian residents from their services in supplying factors of production, from net indirect taxes and from re-distributive transfers. It is equivalent to National Income less net transfers overseas.

*National Turnover of Goods and Services* is the total flow within a given period of final goods and services (*i.e.* excluding any goods and services used up during the period in the process of production) entering the Australian economy from production and imports. This value is equivalent to Gross Domestic Product plus imports of goods and services or, alternatively, to Gross National Expenditure plus exports of goods and services.

*Gross National Expenditure* is the total expenditure within a given period on final goods and services (*i.e.* excluding goods and services used up during the period in the process of production) bought by Australian residents. It is equivalent to Gross Domestic Product plus imports of goods and services less exports of goods and services.

## Sectors

A brief description of the sectors into which the economy is divided for the purpose of National Accounts follows.

The *Corporate Trading Enterprise Sector* includes companies and public enterprises other than financial enterprises. It thus includes all trading enterprises other than unincorporated enterprises and dwellings owned by persons. This sector comprises only resident enterprises, but the concept of resident enterprises includes Australian subsidiaries and branches of overseas-owned companies and excludes overseas subsidiaries and branches of Australian companies. All public trading enterprises are included in this sector whether they are incorporated bodies or not.

The *Financial Enterprise Sector* includes both private and public financial enterprises. Financial enterprises are enterprises which are primarily engaged in financial transactions

in the market consisting of both incurring liabilities and acquiring financial assets. These are organisations which are regarded as providing the financial mechanism for the functioning of the economy. They include life insurance and general insurance offices and superannuation funds as well as other organisations mainly engaged in borrowing and lending in the market.

The *Household Sector* includes all resident persons, their unincorporated enterprises located in Australia and dwellings owned by persons, and non-profit organisations serving households, other than non-profit organisations included in the Financial Enterprises Sector.

The *General Government Sector* excludes public financial and trading enterprises, but otherwise includes the whole of the activities of the Commonwealth Government, State Governments, local authorities and public corporations.

The *Overseas Sector Account* records all transactions between Australian persons, businesses and governments and overseas residents. Australian subsidiaries and branches of overseas companies are classified as resident units, while overseas subsidiaries and branches of Australian companies are classified as non-residents.

### **Description of the Accounts**

The *Domestic Production Account* is shown as receiving the revenue from the sale of goods and services to final buyers; all intermediate goods and services are cancelled out, since they represent a cost to one producer to offset the revenue of the other. On the payments side are shown the payments of indirect taxes less subsidies and, since the account is presented from the point of view of the producing unit, the wages and salaries paid to employees.

The *National Income and Outlay Account* is shown as receiving wages, salaries and supplements, net operating surplus and indirect taxes less subsidies from the Domestic Production Account. From this income are deducted net payments of income and miscellaneous transfers to overseas, and the remainder is the National Disposable Income. The outlay side of the account shows this disposable income is largely used for final consumption expenditure and the balance is the nation's saving. The *National Income and Outlay Account* is a consolidation of the sector income and outlay accounts.

The *National Capital Account* is a consolidation of the sector capital accounts. It shows on the receipts side depreciation allowances transferred from the *Domestic Production Account* and saving transferred from the *National Income and Outlay Account* (or from the sector income and outlay accounts). On the payments side are shown purchases by all sectors of new buildings and capital equipment, the increase in stocks of all sectors and a balance described as net lending to overseas. This concept of net lending to overseas includes the increases (and, negatively, decreases) in Australia's overseas monetary reserves. The net lending to overseas is also the balance on the current transactions in the *Overseas Transactions Account*.

The *Overseas Transactions Account* records all transactions of a current nature between Australian and overseas residents. Although this is an account for the Overseas Sector, the items are named from the Australian viewpoint. The account shows that Australia's current receipts from overseas consist of the value of (Australia's) exports of goods and services, property income received from overseas and transfers from overseas. These receipts are used for (Australia's) imports of goods and services and payments of property income and transfers to overseas; and the balance of current receipts represents net lending to overseas. Positive net lending to overseas corresponds to a surplus on current transactions with overseas and negative net lending corresponds to a deficit.

**Domestic Production Account, 1975-76**

	\$m		\$m
Wages, salaries and supplements	40 672	Final consumption expenditure:	
Gross operating surplus:		Private .....	41 543
Trading enterprises;		Government .....	11 540
Companies .....	7 813	Gross fixed capital expenditure:	
Unincorporated enterprises ..	8 139	Private .....	10 323
Dwellings owned by persons	4 240	Public enterprises .....	3 144
Public enterprises .....	1 607	General government .....	3 254
Financial enterprises .....	1 237	Increase in stocks .....	-172
Less Imputed bank service charge .....	1 931	Statistical discrepancy .....	178
	<hr/>		
Gross Domestic Product at Factor Cost .....	61 777	Gross national expenditure ..	69 810
Indirect taxes less subsidies .....	8 466	Exports of goods and services ...	10 911
	<hr/>		
<b>Gross Domestic Product .....</b>	<b>70 243</b>	National turnover of goods and services .....	80 721
		Less Imports of goods and services	10 478
			<hr/>
		<b>Expenditure on Gross Domestic Product .....</b>	<b>70 243</b>

**National Income and Outlay Account, 1975-76**

	\$m		\$m
Final consumption expenditure:		Wages, salaries and supplements	40 672
Private .....	41 543	Net operating surplus .....	16 495
Government .....	11 540		
Saving .....	11 537	Domestic factor incomes .....	57 167
		Less Net income paid overseas ...	626
		Indirect taxes .....	8 778
		Less Subsidies .....	312
			<hr/>
		National Income .....	65 007
		Less Net transfers to overseas ...	387
			<hr/>
<b>Disposal of Income .....</b>	<b>64 620</b>	<b>National Disposable Income .....</b>	<b>64 620</b>

**Overseas Transactions Account, 1975-76**

	\$m		\$m
Exports of goods and services ...	10 911	Imports of goods and services ...	10 478
Property income from overseas ..	269	Property income to overseas ...	895
Transfers from overseas:		Transfer to overseas:	
Personal .....	296	Personal .....	313
		General government .....	370
		Net lending to overseas .....	-580
			<hr/>
<b>Current receipts from overseas ..</b>	<b>11 476</b>	<b>Use of current receipts .....</b>	<b>11 476</b>

## National Capital Account, 1975-76

	\$m		\$m
Gross fixed capital expenditure:		Depreciation allowances .....	4 610
Private;		Saving:	
Dwellings .....	3 236	Increase in income tax provisions .....	690
Other building and construction .....	2 032	Undistributed (company) income .....	611
All other .....	5 055	Retained income of public financial enterprises .....	328
Public enterprises .....	3 144	Household saving .....	7 249
General government .....	3 254	General government surplus on current transactions .....	2 393
Increase in stocks:		General government grants for private capital purposes .....	266
Farm and miscellaneous .....	-23		
Private non-farm .....	-149		
Statistical discrepancy .....	178		
Net lending to overseas .....	-580		
<b>Gross accumulation .....</b>	<b>16 147</b>	<b>Finance of gross accumulation ...</b>	<b>16 147</b>

The next three tables give details for South Australia of farm income, household income, and private final consumption expenditure respectively for the years 1971-72 to 1975-76.

Farm Income, South Australia <sup>(a)</sup>

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
	\$ million				
Gross value of farm production:					
Wool (including skin wool) .....	86	165	173	122	132
Livestock slaughtering .....	116	165	190	113	137
Wheat .....	76	44	196	164	118
Other grain crops .....	47	32	77	128	113
Other crops .....	91	93	121	143	138
Other livestock products .....	39	34	43	49	46
Total .....	455	533	800	719	684
Less Stock valuation adjustment .....	7	17	-4	7	
Less Production costs other than wages and depreciation:					
Marketing costs .....	45	41	57	58	} 306
Seed and fodder .....	30	49	52	57	
Other costs .....	100	105	128	157	
Gross farm product at factor cost .....	273	321	567	440	378
Less Depreciation .....	49	49	48	48	
Wages, net rent and interest paid and third party insurance transfers .....	64	66	87	111	} 174
Farm income .....	160	206	432	281	
Less Farm income of companies .....	3	9	21	8	8
<b>Income of farm unincorporated enterprises .....</b>	<b>157</b>	<b>197</b>	<b>411</b>	<b>273</b>	<b>196</b>

(a) Includes Northern Territory.



**Household Income, South Australia <sup>(a)</sup>**

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
			\$ million		
Wages, salaries and supplements . . . .	1 791	2 008	2 536	3 319	3 821
Income of farm unincorporated enterprises . . . . .	157	197	411	273	196
Income of other unincorporated enterprises . . . . .	208	232	279	325	389
Income from dwellings . . . . .	57	69	75	97	142
Transfers from general government . .	211	256	321	443	600
All other income . . . . .	251	288	351	460	511
<b>Total household income . . . . .</b>	<b>2 675</b>	<b>3 050</b>	<b>3 973</b>	<b>4 917</b>	<b>5 659</b>
<i>Less</i>					
Income tax payable . . . . .	321	352	540	675	*
Other direct taxes, fees, fines, etc.	39	42	44	48	*
Consumer debt interest . . . . .	39	48	64	79	*
Transfers overseas . . . . .					
<b>Household disposable income . . . .</b>	<b>2 276</b>	<b>2 608</b>	<b>3 325</b>	<b>4 115</b>	<b>*</b>

(a) Includes Northern Territory.

**Private Final Consumption Expenditure, South Australia <sup>(a)</sup>**

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
			\$ million		
Food . . . . .	386	436	501	599	710
Cigarettes and tobacco . . . . .	58	65	74	90	114
Alcoholic drinks . . . . .	129	132	152	181	232
Clothing etc. . . . .	179	206	248	295	350
Health . . . . .	134	150	173	221	248
Rent . . . . .	223	257	299	370	476
Gas, electricity, fuel . . . . .	42	45	50	58	69
Household durables . . . . .	162	189	250	314	407
Newspapers, books, etc. . . . .	29	31	39	47	60
All other goods n.e.i. . . . .	80	98	110	144	178
Travel and communication . . . . .	313	340	399	496	594
All other services . . . . .	217	251	290	354	413
<b>Total . . . . .</b>	<b>1 952</b>	<b>2 200</b>	<b>2 585</b>	<b>3 169</b>	<b>3 851</b>

(a) Includes Northern Territory.

The information included in this section has been derived from the publication, *Australian National Accounts, National Income and Expenditure 1975-76* (Catalogue No. 5204.0), published by the Australian Statistician, Canberra.

**PART 12**

**PRIVATE FINANCE**

**12.1 BANKING AND CURRENCY**

**BANKING**

The banking system in Australia comprises a central bank (the Reserve Bank of Australia); thirteen trading banks (one owned by the Commonwealth Government, three by State Governments, and nine privately owned); the Commonwealth Development Bank and the Australian Resources Development Bank Ltd (specialist banks, owned respectively by the Commonwealth Government and a consortium of the seven major trading banks); and thirteen savings banks of which one is owned by the Commonwealth Government and three by State Governments, two are trustee savings banks, and seven are associated with privately owned trading banks.

**LEGISLATION**

Under Section 51 of the Constitution Act the Commonwealth Parliament has power to legislate with respect to 'Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money'.

The principal Acts at present in force relating to banking are:

- (a) the *Reserve Bank Act 1959*, providing for the constitution and management of the Reserve Bank and the management of the Australian note issue;
- (b) the *Commonwealth Banks Act 1959*, providing for the constitution and management of the Commonwealth Banking Corporation; and
- (c) the *Banking Act 1959*, providing for the regulation of banking and the protection of the currency and public credit of Australia.

The *Banking Act* 1959 applies to all banks operating in Australia or its Territories, except State banks trading in their own State. The objects of the Act are: (1) to provide a uniform legal framework for regulating the banking system; (2) to safeguard depositors from loss; (3) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (4) to control bank interest rates and the volume of credit in circulation; (5) to mobilise and to provide machinery for the control of foreign exchange and gold reserves of the Australian economy.

State banking legislation relates to the incorporation of banks and the constitution and management of State Banks. South Australian Acts at present in force relating to banking are the State Bank Act, 1925-1975 and the Savings Bank of South Australia Act, 1929-1977.

### THE RESERVE BANK

The Reserve Bank of Australia functions as a central bank, controls the Australian note issue through the Note Issue Department, provides special banking facilities through the Rural Credits Department, and acts as banker to the Commonwealth and some of the States. Liabilities and assets of each department of the Reserve Bank are shown in the table below.

#### Reserve Bank of Australia, Liabilities and Assets at 30 June 1977

Particulars	Central Bank Department	Note Issue Department	Rural Credits Department	Total (a)
LIABILITIES (\$'000)				
Capital .....	40 000	—	9 428	49 428
Reserve funds .....	5 568	—	15 551	21 119
Special Reserve:				
International Monetary Fund				
Special Drawing Rights .....	218 208	—	—	218 208
Development fund .....	—	—	1 447	1 447
Notes on issue .....	—	3 319 313	—	3 319 313
Deposits, bills payable and other:				
Statutory reserve deposits	1 584 429	—	—	1 584 429
Other trading bank deposits	29 505	—	—	29 505
Savings bank deposits .....	1 055 694	—	—	1 055 694
Other .....	2 705 224	138 227	541 868	(a)1 830 711
<b>Total .....</b>	<b>5 638 628</b>	<b>3 457 540</b>	<b>568 294</b>	<b>(a)8 109 854</b>
ASSETS (\$'000)				
Gold and foreign exchange (b)	2 299 518	167 054	—	2 466 572
Commonwealth Government securities .....	2 067 860	2 137 296	—	4 205 156
All other .....	1 271 250	1 153 190	568 294	(a)1 438 126
<b>Total .....</b>	<b>5 638 628</b>	<b>3 457 540</b>	<b>568 294</b>	<b>(a)8 109 854</b>

(a) Inter-departmental accounts totalling \$1 554 608 000 have been offset in totals.

(b) Includes IMF Special Drawing Rights.

The policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The Bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

Further details of the activities of the Reserve Bank are given in the *Official Year Book of Australia*.

#### THE COMMONWEALTH BANKING CORPORATION

The Commonwealth Banking Corporation was established under the *Commonwealth Banks Act 1959* and commenced operations on 14 January 1960. It is the controlling body for the Commonwealth Trading Bank, the Commonwealth Savings Bank and the Commonwealth Development Bank.

Particulars relating to the Development Bank are given below, while details of the other two banks are included in later sections relating to trading banks and savings banks.

#### COMMONWEALTH DEVELOPMENT BANK

The Development Bank is a supplementary source of finance for primary production and for the establishment or development of industrial undertakings and does not compete with conventional lenders, but provides financial help when such help is thought desirable and finance is not otherwise available on suitable terms. The primary consideration of the Bank's operations in deciding whether finance should be made available is the prospect of success and not necessarily the value of security available.

In South Australia all the major private banks and the State Bank of South Australia are agents of the Development Bank for the receipt of loan applications. The averages of weekly figures for loans, advances and bills discounted for the month of June in the years 1974 to 1977 were \$307, \$345, \$369 and \$406 million respectively. Of the last mentioned amount, \$41.2 million was advanced in South Australia.

At 30 June 1977 the capital of the Development Bank was \$61.7 million.

#### AUSTRALIAN RESOURCES DEVELOPMENT BANK LIMITED

This corporation was formed by the major trading banks with the support of the Reserve Bank and was given bank status by an amendment to the Banking Act in 1967. It provides finance for the development of Australia's natural resources mainly in the form of refinanced trading bank loans but also by direct lending and equity participation. Other services offered to intending developers include the organising of consortia financing, assessments of feasibility and independent verification of reserves. The averages of weekly figures for loans and advances outstanding (including refinanced loans) for the month of June in the years 1974 to 1977 were \$351, \$449, \$559 and \$592 million respectively. This finance is provided from the Australian capital market (mainly in the form of public issues of transferable deposits) and from subordinated loans by the shareholding banks and the Reserve Bank of Australia. Overseas borrowing remains a minor source of funds.

Authorised capital of the Bank is \$10 million of which \$7 million (at 30 September 1977) has been issued as fully paid capital. The shareholders (the major trading banks) have approximately equal shareholdings. Although not a shareholder, the Reserve Bank of Australia initially subscribed \$2.1 million in loan capital on which interest is paid.

## TRADING BANKS

For statistical purposes trading banks are often divided into two groups, 'major' and 'other'. The 'major trading banks' comprise the six private trading banks and the Commonwealth Trading Bank, all of which have interests throughout Australia: in June 1977 they accounted for approximately 90 per cent of all general trading bank assets in Australia.

The group 'other trading banks' consists of the three State Government banks (including the State Bank of South Australia) which trade mainly in their respective States, and three other banks (two of them overseas institutions) whose business is either specialised (e.g. financing overseas trade), or both specialised and limited to particular areas.

**Banks Originating in South Australia**

With a subscribed capital of \$500 000 in 50 000 shares of \$10 each, the first trading bank promoted in South Australia was The Bank of Adelaide which was opened for business on 11 December 1865 and now has branches in all States and the Australian Capital Territory.

Pursuant to the State Advances Act of 1895 the State Bank of South Australia commenced business in 1896. The original Act directed that advances were to be made on first mortgage to farmers, other primary producers and local government authorities. The State Bank Act, 1925 repealed the State Advances Act, and enlarged the scope of the activities of the Bank by making provision for loans on overdraft and all business of general banking. The State Bank also administers the following Acts on behalf of the State:

Advances for Homes Act, 1928-1970;

Advances to Settlers Act, 1930-1972;

Loans to Producers Act, 1927-1962;

Advances for wire-netting and vermin proof materials under the Vermin Act, 1931-1973 (now repealed);

Loans for Fencing and Water Piping Act, 1938-1975;

Student Hostels (Advances) Act, 1961.

The State Bank of South Australia does not operate branches or agencies outside the State.

**Assets**

Under the provisions of the *Banking Act* 1959 all trading banks (except State banks trading in their own State) have limitations on their portfolio of assets. These banks are required to maintain a fixed percentage of total deposits as a deposit with the Reserve Bank (Statutory Reserve Deposit); The SRD ratio for major trading banks changed during 1977 to 8.0 per cent on 18 January; to 9.0 per cent on 25 January; to 10.0 per cent on 21 February; to 9.0 per cent on 20 June; to 8.0 per cent on 1 July and to 6.5 per cent on 9 September.

The major trading banks are also required by agreement to hold a certain percentage of total deposits in the form of liquid assets or government securities. (This minimum LGS ratio which had remained at 18 per cent since 1962 was changed temporarily to 23 per cent in February 1976 but reverted to 18 per cent on 1 April 1977.

The following table gives some particulars of assets held by trading banks in Australia. The figures quoted are averages of assets at the close of business on each Wednesday in June 1977.

Trading Banks: Assets Within Australia, June 1977 <sup>(a)</sup>

Assets	Major Trading Banks	Other Trading Banks	All Trading Banks
		\$'000	
Gold, bullion and Australian notes .....	352 920	20 957	373 876
Cash with Reserve Bank .....	5 248	824	6 072
Commonwealth public securities:			
Commonwealth Government and State .....	3 343 483	303 225	3 646 708
Local authorities and public corporations .....	10 247	35 823	46 070
Statutory Reserve Deposit Account with Reserve Bank .....	1 685 693	18 530	1 704 224
Loans to authorised dealers in short-term money market .....	102 530	42 283	144 813
Other loans, advances and bills discounted .....	12 177 018	1 808 238	13 985 256
Bank premises, furniture and sites .....	302 006	80 398	382 404
Other assets .....	2 540 483	298 902	2 839 385
<b>Total assets .....</b>	<b>20 519 628</b>	<b>2 609 181</b>	<b>23 128 809</b>

(a) Excludes inter-branch accounts and contingencies.

## Branches and Agencies

Of the thirteen trading banks which operate in Australia, the eight banks listed below conduct business in South Australia:

## Government banks;

Commonwealth Trading Bank of Australia  
State Bank of South Australia

## Private banks;

Australia and New Zealand Banking Group Ltd  
The Bank of Adelaide  
Bank of New South Wales  
Commercial Bank of Australia Ltd  
Commercial Banking Co of Sydney Ltd  
National Bank of Australasia Ltd

## Trading Banks: Branches and Agencies at 30 June, South Australia

Bank	Branches			Agencies		
	1975	1976	1977	1975	1976	1977
Commonwealth Trading Bank .....	54	57	62	46	41	33
State Bank of South Australia .....	36	37	37	16	15	17
Private banks .....	355	358	359	114	95	91
<b>Total—Metropolitan area (a) .....</b>	<b>239</b>	<b>250</b>	<b>258</b>	<b>71</b>	<b>61</b>	<b>53</b>
<b>Country .....</b>	<b>206</b>	<b>202</b>	<b>200</b>	<b>105</b>	<b>90</b>	<b>88</b>
<b>Total State .....</b>	<b>445</b>	<b>452</b>	<b>458</b>	<b>176</b>	<b>151</b>	<b>141</b>

(a) As determined by individual banks for administrative purposes.

**Deposits, Advances and Debit to Customers Accounts**

Deposits not bearing interest are on current account and may be withdrawn on demand. Deposits bearing interest include some deposits on current account but most are deposits for fixed terms ranging from three months to four years and for large amounts from thirty days to four years. Until December 1970 the maximum term for fixed deposits was two years.

Debits to customers accounts generally represent the total of all cheques drawn by customers of the banks.

**Trading Banks: Balance of Deposits and Advances and Debits to Customers Accounts, South Australia**

Year	Depositors Balances(a)			Loans, Advances, and Bills Discounted (a) (b)	Debits to Customers Accounts (c)	Proportion to Total Deposits (a)	
	Bearing Interest	Not Bearing Interest	Total			Deposits Bearing Interest	Loans, Advances, and Bills Discounted (b)
			\$'000			Per cent	
1972-73 .....	298 161	265 511	563 670	470 070	336 581	52.9	83.4
1973-74 .....	427 839	321 344	749 182	585 505	414 861	57.1	78.2
1974-75 .....	581 109	320 751	901 858	688 337	456 883	64.4	76.3
1975-76 .....	781 661	393 968	1 175 627	814 384	578 253	66.5	69.3
1976-77 .....	926 758	426 746	1 353 503	1 026 216	690 430	68.5	75.8

(a) Average of balances at close of business on Wednesdays during the period.

(b) Excludes loans to authorised dealers in the short-term money market.

(c) Weekly average, i.e. average of debits during weeks ending on Wednesdays in the period. Includes the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank.

The following table relates to trading bank advances outstanding for all banks in South Australia and the Northern Territory except the State Bank of South Australia. Advances are classified according to type of borrower in July of each year from 1973 to 1977.

**Major Trading Banks, South Australia and Northern Territory  
Advances to Resident Borrowers by Type of Borrower (a)  
(At Second Wednesday in July)**

Classification	1973	1974	1975	1976	1977
	\$ million				
<b>Business advances:</b>					
Agriculture, grazing and dairying					
(b) .....	78.8	86.4	91.8	108.8	122.9
Manufacturing .....	43.2	65.2	66.7	67.0	93.1
Transport, storage and communication .....	8.4	12.3	9.9	13.0	16.7
Finance .....	15.7	27.4	21.5	19.1	27.4
<b>Commerce;</b>					
Retail trade .....	33.5	37.3	42.1	51.9	66.1
Wholesale trade (c) .....	20.8	23.9	21.7	28.4	37.6
<b>Total commerce .....</b>	<b>54.3</b>	<b>61.2</b>	<b>63.8</b>	<b>80.2</b>	<b>103.6</b>

**Major Trading Banks, South Australia and Northern Territory**  
**Advances to Resident Borrowers by Type of Borrower <sup>(a)</sup>**  
**(At Second Wednesday in July) (continued)**

Classification	1973	1974	1975	1976	1977
Business advances (continued):					
					\$ million
Building and construction . . . . .	18.2	19.8	21.3	25.4	38.3
Other business . . . . .	61.0	78.9	81.9	96.4	109.9
Unclassified . . . . .	2.5	2.9	5.4	11.2	15.4
<b>Total business advances . . . . .</b>	<b>282.0</b>	<b>354.3</b>	<b>362.3</b>	<b>421.1</b>	<b>527.4</b>
Distribution of business advances:					
To companies . . . . .	148.4	195.8	199.2	225.8	298.4
Other . . . . .	133.6	158.4	163.1	195.3	228.9
Advances to public authorities . . . . .	1.1	1.4	1.6	3.1	2.1
Personal advances:					
Building or purchasing own home . . . . .	30.9	40.4	40.7	52.8	60.8
Other . . . . .	77.6	105.8	141.8	202.3	281.8
<b>Total personal advances . . . . .</b>	<b>108.5</b>	<b>146.1</b>	<b>182.5</b>	<b>255.1</b>	<b>342.6</b>
Advances to non-profit organisations . . . . .	3.3	5.4	3.8	4.5	5.6
<b>Total advances to resident borrowers . . . . .</b>	<b>394.9</b>	<b>507.2</b>	<b>550.2</b>	<b>683.7</b>	<b>877.7</b>

(a) Covers advances by the Commonwealth Trading Bank and all private trading banks, but excludes advances by the State Bank of South Australia. 'Resident borrowers' comprise all institutions (including branches of overseas institutions) engaged in business in Australia and individuals permanently residing in Australia.

(b) Includes farm development loan component.

(c) Includes temporary advances to woolbuyers.

### Interest Rates

Bank interest rates are not formally determined under the Banking Act. Maximum rates are fixed after discussions between the Reserve Bank and the banks, and with the approval of the Treasurer. State Government banks, although not bound by rulings of the Reserve Bank, tend to conform to them.

## SAVINGS BANKS

### Development of Savings Banks

The prime object of the foundation of savings banks in Australia was the encouragement of thrift, and deposits as small as 10 cents are still accepted. Generally, depositors cannot operate on their savings accounts by means of cheques, although most savings banks extend this facility to non-profit organisations such as friendly, co-operative and charitable societies. In addition the Savings Bank of South Australia provides personal cheque account facilities for other depositors. Savings accounts have the advantages that deposits may be withdrawn on demand and that depositors receive interest on their minimum monthly balances. No charge is made by the banks for keeping these accounts or the cheque accounts of some non-profit organisations. However, early in 1970 concessions relating to charges and interest on trading accounts were withdrawn from



hospital and medical benefit organisations, building societies, credit unions and investment clubs. Savings banks may not accept deposits from a profit-making body unless it is acting as a trustee for a non-profit making beneficiary.

Post Offices in South Australia acted as agencies for the Savings Bank of South Australia until 1912 when they became agents of the Commonwealth Bank from the date of its establishment.

Savings bank business was conducted exclusively by these two government banks until 1956, when the first of the private banks entered this field. Savings bank facilities in South Australia are now provided by the eight banks listed below:

Government;

Commonwealth Savings Bank of Australia  
Savings Bank of South Australia

Private;

Australia and New Zealand Savings Bank Ltd  
The Bank of Adelaide Savings Bank Ltd  
Bank of New South Wales Savings Bank Ltd  
Commercial Savings Bank of Australia Ltd  
CBC Savings Bank Ltd  
National Bank Savings Bank Ltd

**Savings Bank of South Australia**

The Savings Bank of South Australia commenced operations on 11 March 1848 following the enactment of an ordinance in 1847. At 30 June 1977 there were 143 branches, 653 agencies and 834 school bank agencies within South Australia. The Savings Bank of South Australia does not operate branches in other Australian States but has agent banks to act for it in other States and in the United Kingdom. Since April 1974 a resident officer has been located in London.

The total of depositors balances first exceeded \$200 million in 1956, reached \$400 million in July 1969 and at 30 June 1977 amounted to more than \$842 million. During 1976-77, the Bank made loans exceeding \$107.7 million to depositors for housing, for rural development and for institutional and other purposes, and at 30 June 1977 the total of such loans outstanding was over \$358 million.

**Savings Bank of South Australia, Summary of Business**

Year	Operative Accounts	Cash Turnover (a)	Depositors Balances (b)	Loans (b) (c)	Government Securities
					Held (b) (d)
	No.	\$m	\$'000	\$'000	\$'000
1972-73 .....	977 345	1 693	537 953	310 282	140 000
1973-74 .....	1 007 671	2 262	591 822	341 853	157 713
1974-75 .....	1 064 468	3 037	697 458	396 454	166 865
1975-76 .....	1 074 646	3 821	776 473	457 096	176 578
1976-77 .....	1 078 799	4 224	842 842	533 707	184 344

(a) Sum of deposits and withdrawals; includes some duplication from amounts transferred by depositors from one type of account to another.

(b) At end of year, as published in the Bank's Annual Report.

(c) Includes loans guaranteed by South Australian Government and to statutory and local government bodies.

(d) Commonwealth Government Securities only.

### Branches and Agencies

The number of branches of savings banks increased in 1976-77 for the third time since 1969-70 because of an increase in the number of branches of private banks in the metropolitan area. However, the number of agencies of savings banks decreased in each of the years 1968-69 to 1976-77.

#### Savings Banks: Branches and Agencies at 30 June, South Australia

Bank	Branches			Agencies		
	1975	1976	1977	1975	1976	1977
Commonwealth Savings Bank . . . . .	78	79	81	671	642	618
Savings Bank of South Australia . . . . .	142	142	143	726	686	653
Private banks . . . . .	355	358	359	511	472	472
Total—Metropolitan area (a)	330	338	344	1 255	1 196	1 140
Country . . . . .	245	241	239	653	604	603
Total State . . . . .	575	579	583	1 908	1 800	1 743

(a) As determined by individual banks for administrative purposes.

### School Banking

Special banking facilities for school children were introduced into South Australia with the inauguration of the School Banking Department of the Savings Bank of South Australia on 28 April 1968. The Commonwealth Savings Bank of Australia and some private banks provide similar services at some private schools. However, the Savings Bank of South Australia has sole access to State schools, and retains a major share of school banking business. With a view to encouraging thrift in school children, deposits as small as one cent are accepted.

Details of school banking in this State are as follows:

	Agencies	Operative Accounts '000	Depositors Balances \$'000
30 June 1973 . . . . .	908	161	3 618
1974 . . . . .	910	157	3 684
1975 . . . . .	902	155	3 808
1976 . . . . .	881	153	4 095
1977 . . . . .	877	149	4 366

### Assets

Under the provisions of the *Banking Act 1959* all savings banks (except State banks trading in their own State) are required to maintain in prescribed investments an amount that together with cash on hand in Australia is not less than the amount on deposit in Australia with the savings bank. These prescribed investments include deposits with the Reserve Bank, deposits with or loans to other banks, Commonwealth Government or State securities, loans for housing, loans to authorised dealers in the short-term money market and loans to the Australian Banks Export Refinance Corporation Ltd.

A further limitation on the portfolio of assets held by savings banks is that they are required to hold in cash and other prescribed assets, funds equivalent to 45 per cent of

depositors balances. Within this amount, funds equivalent to 7.5 per cent of depositors balances must be held in deposits with the Reserve Bank and in Treasury notes. The ratio was previously 50 per cent but was varied by an amendment to the Banking (Savings Bank) Regulations on 27 May 1977.

### Deposits

Until 1961, the total of depositors balances in savings banks per head of population was higher in South Australia than in any other State. Although deposits per head are now higher in Victoria than in South Australia, the figure for this State is still well above the Australian average.

#### Savings Banks: Accounts and Deposits, South Australia and Australia

At 30 June	South Australia			Australia		
	Accounts Operative (a)	Depositors Balances	Deposits per Head of Population	Accounts Operative (a)	Depositors Balances	Deposits per Head of Population
	'000	\$m	\$	'000	\$m	\$
1973.....	1 770	1 060.4	884	17 468	10 237.9	780
1974.....	1 861	1 174.8	964	18 369	11 195.6	839
1975.....	1 991	1 394.6	1 130	19 390	12 868.5	953
1976.....	2 049	1 617.3	1 282	20 171	14 822.5	1 065
1977.....	2 108	1 780.8	1 394	20 667	16 365.3	1 163

(a) Excludes school bank and inoperative accounts.

The Savings Bank of South Australia has always held a very high proportion of the total of depositors balances in this State, although its share of total on deposit has dropped from about 75 per cent in 1961 to approximately 47 per cent in 1977. During that time the private banks have increased their share from less than 12 per cent to approximately 30 per cent.

#### Savings Bank Deposits, South Australia

At 30 June	Commonwealth Savings Bank	Savings Bank of South Australia	Private Savings Banks	Total
	\$ million			
1973.....	248.8	538.0	273.7	1 060.4
1974.....	276.6	591.8	306.4	1 174.8
1975.....	322.9	697.5	374.2	1 394.6
1976.....	374.4	776.5	466.5	1 617.3
1977.....	412.0	842.8	526.1	1 780.8

The next table gives an indication of the amount of business conducted by savings banks during a year. It shows that in each of the last five years, both the amount deposited and the amount withdrawn during the year exceeded the total amount on deposit at the end of the year.

## Movements in Savings Bank Deposits, South Australia

Year	Amount on Deposit at Beginning of Year	Deposits during Year (a)	Withdrawals during Year (a)	Interest Added during Year	Increase in Depositors Balances during Year	Amount on Deposit at End of Year
\$ million						
1972-73	874.1	1 841.7	1 691.3	35.8	186.3	1 060.4
1973-74	1 060.4	2 392.2	2 325.1	47.4	114.5	1 174.8
1974-75	1 174.8	3 135.6	2 982.0	66.2	219.8	1 394.6
1975-76	1 394.6	3 754.0	3 612.5	81.2	222.8	1 617.3
1976-77	1 617.3	4 324.9	4 254.8	93.4	163.5	1 780.8

(a) Includes inter-branch transfers.

## CURRENCY

Under the Commonwealth Constitution the control of currency, coinage and legal tender in Australia is vested in the Commonwealth.

The Commonwealth Treasurer is empowered by legislation to arrange for the making and issuing of coins of specified denominations. Australia's coin requirements are met by the Royal Australian Mint in Canberra. Australian notes are printed by the Note Printing Branch of the Reserve Bank in Melbourne, while their issue is controlled by the Note Issue Department of that bank.

Notes in circulation are of the denominations \$1, \$2, \$5, \$10, \$20, and \$50, the last mentioned becoming available to the public on 9 October 1973. Coins in circulation are 1 cent and 2 cent (bronze) and 5, 10, 20 and 50 cents (cupro-nickel).

The following table shows the value of notes in circulation in Australia for the past five years. Separate details for South Australia are not available.

## Notes in Circulation, Australia

Denomination	Last Wednesday in June				
	1973	1974	1975	1976	1977
	\$'000				
\$1 and 10s.	48 487	53 196	52 657	53 561	57 377
\$2 and £1	123 670	130 195	129 098	127 834	133 027
\$5	94 378	103 525	110 239	116 407	121 756
\$10 and £5	639 899	701 083	675 172	655 151	628 774
\$20 and £10	851 381	960 629	1 186 745	1 334 591	1 489 029
\$50	.	197 462	403 158	633 848	860 845
£50	8	8	7	3	3
£100	19	18	17	12	12
Total	1 757 842	2 146 116	2 557 092	2 921 408	3 290 823
Notes held by:					
Banks	229 222	300 787	339 943	352 500	378 068
Public	1 528 620	1 845 329	2 217 149	2 568 908	2 912 755

Minting of the 50 cent coin in its original form of 80 per cent silver and 20 per cent copper, ceased in April 1968. A twelve sided version of the 50 cent coin, in cupro-nickel, was issued in September 1969. Special 50 cent coins were issued in 1970 to commemorate the two-hundredth anniversary of Captain James Cook's discovery of the east coast of Australia, and in 1977 to commemorate the twenty-fifth anniversary of Queen Elizabeth's accession to the throne.

More complete details of Australian currency, including historical references, were included on pages 552-6 of the *South Australian Year Book* 1968.

## 12.2 INSURANCE

### LIFE INSURANCE

The activities of life insurance companies operating in South Australia have been regulated by Commonwealth legislation since 1945. Under the *Life Insurance Act* 1945, every company transacting life insurance business must be registered and must lodge a deposit of up to \$100 000, as security for policy holders, with the Commonwealth Treasurer. The Act is administered by the Insurance Commissioner who has wide powers of inquiry into the activities of any registered company.

Each company must establish at least one statutory fund and all moneys received in respect of life insurance business must be paid to, and form part of, the assets of these funds. An actuarial investigation must be conducted at least once every five years, with the distribution of shareholders dividends and policy holders bonuses subject to sufficient surplus being revealed by such investigation. All premiums must be actuarially approved and the Commissioner has powers to suppress policies or proposals which he deems misleading.

Companies are required to furnish to the Commissioner certain accounting reports and statistical returns and it is from these returns that the statistical details in this section are obtained.

The individual returns cover operations for the accounting year ending in the calendar year shown. For a majority of companies the closing date is 31 December, but a number balance earlier in the year.

During 1976, there were thirty-eight companies operating in South Australia. All conducted ordinary life insurance business; thirty-five also undertook superannuation business, *i.e.*, the issuing of policies to the trustees of funds established for the provision of superannuation or retirement benefits, and nine recorded industrial business whereby premiums are collected at intervals of less than two months.

With the passing of the State Government Insurance Commission Act Amendment Act 1977, the Commission, which from 1972 has been undertaking general insurance business, was empowered to enter the life insurance field and it began accepting life insurance business on 1 March 1978.

#### Policies Existing

There has been a rapid growth in life insurance business since the end of 1945 when, for policies existing, the sum insured plus bonus additions amounted to \$130 million; by 1956 the \$500 million mark was reached and by 1976 the figure was \$6 126 million.

The next table illustrates the growth in life insurance business over the last ten years. Although total business has been increasing, the number of industrial policies has actually declined and industrial premiums have risen only slowly. The heavy relative decline in this form of business has resulted from the high cost of collecting premiums and the development of superannuation and group schemes.

## Life Insurance: Policies Existing, South Australia

Year	Ordinary			Superannuation			Industrial (a)		
	Policies	Sum Insured	Annual Premiums	Policies	Sum Insured	Annual Premiums	Policies	Sum Insured	Annual Premiums
	No.	\$'000	\$'000	No.	\$'000	\$'000	No.	\$'000	\$'000
1967	477 753	1 272 160	33 383	45 243	256 144	8 947	269 364	89 808	3 761
1968	497 847	1 413 230	37 087	47 003	298 861	10 301	262 780	94 949	3 936
1969	523 417	1 588 831	41 321	48 453	341 571	11 588	257 049	101 077	4 163
1970	550 226	1 802 721	46 011	49 784	399 458	13 347	253 464	111 065	4 493
1971	580 218	2 073 174	51 801	51 275	470 677	15 882	249 993	123 800	4 894
1972	608 290	2 374 762	58 022	52 875	542 580	17 921	241 651	135 827	5 263
1973	642 956	2 757 993	63 221	52 292	658 235	20 543	237 018	149 526	5 756
1974	657 011	3 150 075	68 245	54 059	868 020	25 992	224 517	157 078	5 901
1975	667 507	3 653 848	74 707	55 320	1 112 366	33 494	210 213	161 548	5 984
1976	666 013	4 130 495	78 574	56 861	1 370 498	40 537	194 363	165 528	6 043

(a) Includes industrial business for the Northern Territory.

In the following table, the distinction between endowment insurance and an endowment policy is that endowment insurance provides for the payment of the sum insured upon the insured person reaching a specified age or upon his prior death, whereas the sum insured under an endowment policy is paid only upon the insured person reaching the specified age.

## Life Insurance: Policies Existing, South Australia, 1976

Type of Policy	Ordinary		Superannuation		Industrial (a)	
	Sum Insured	Annual Premiums	Sum Insured	Annual Premiums	Sum Insured	Annual Premiums
Whole life insurances	2 529 751	45 042	171 295	4 139	10 266	377
Endowment insurances	559 290	25 911	401 899	15 604	152 640	5 544
Other insurances	1 016 665	5 730	781 424	19 915	1 675	76
Endowment	24 789	1 891	15 879	879	947	45
Total	4 130 495	78 574	1 370 498	40 537	165 528	6 043

(a) Includes industrial business for the Northern Territory.

## New Policies

During 1976 a total of 68 195 new life insurance policies, with a sum insured of \$1 200 765 000, were issued in South Australia. The value, *i.e.*, sum insured, of new policies has increased continuously since 1945.

The number and value of new ordinary, superannuation, and industrial policies issued during the five years to 1976 are shown in the text table. The relative importance of industrial policies declined from approximately 25 per cent of total value in 1945 to just below 2 per cent in 1976. The average value of industrial policies is much lower than for ordinary and superannuation policies.

## Life Insurance: New Policies Issued, South Australia

Class of Business	1972	1973	1974	1975	1976
			NUMBER		
Ordinary.....	63 668	60 229	58 082	55 914	52 162
Superannuation.....	6 555	7 020	8 706	9 858	9 904
Industrial (a).....	13 978	13 629	9 210	6 874	6 129
<b>Total (a).....</b>	<b>84 201</b>	<b>80 878</b>	<b>75 998</b>	<b>72 646</b>	<b>68 195</b>
			SUM INSURED (\$'000)		
Ordinary.....	440 164	526 639	584 349	715 427	790 057
Superannuation.....	121 193	173 089	300 011	359 673	390 160
Industrial (a).....	25 306	28 270	24 416	20 797	20 547
<b>Total (a).....</b>	<b>586 663</b>	<b>727 998</b>	<b>908 775</b>	<b>1 095 897</b>	<b>1 200 765</b>

(a) Includes industrial business for the Northern Territory.

Annual premiums on new policies issued in 1976 amounted to \$22 284 000 and of this amount \$6 036 000 was for endowment insurances and \$8 702 000 for whole of life insurances. Details of sum insured and premiums payable for the various types of policy issued in 1976 are shown in the following table.

## Life Insurance: New Policies Issued, South Australia, 1976

Type of Policy	Ordinary		Superannuation		Industrial (a)	
	Sum Insured	Annual Premiums	Sum Insured	Annual Premiums	Sum Insured	Annual Premiums
			\$'000			
Whole life insurances.....	438 987	7 414	53 073	1 253	834	35
Endowment insurances....	47 822	1 646	100 950	3 768	19 187	623
Other insurances.....	302 116	1 415	231 219	5 802	526	5
Endowment.....	1 132	64	4 918	260	—	—
<b>Total.....</b>	<b>790 057</b>	<b>10 539</b>	<b>390 160</b>	<b>11 083</b>	<b>20 547</b>	<b>663</b>

(a) Includes industrial business for the Northern Territory.

## Annuity Business

Life insurance companies also issue annuity policies but this form of business is at present a relatively minor aspect of life insurance activity. In 1976 there were 164 policies in existence with total annuities per annum of \$66 871.

## Policies Discontinued

The following table gives details of policies discontinued according to reason for discontinuance. The item 'transfer' represents the net balance from the transfer of policies between the South Australian register and those of other States, Territories or overseas.

**Life Insurance: Policies Discontinued or Reduced, South Australia, 1976**

Cause	Ordinary		Superannuation		Industrial (a)	
	Policies	Sum Insured	Policies	Sum Insured	Policies	Sum Insured
	No.	\$'000	No.	\$'000	No.	\$'000
Death .....	2 397	7 433	194	2 374	1 141	384
Maturity .....	10 151	12 128	859	6 534	11 976	2 346
Surrender .....	30 056	152 532	5 108	106 609	6 661	7 954
Forfeiture .....	9 102	95 557	440	7 948	2 075	6 222
Transfer .....	-134	-3 089	474	-1 838	-188	-414
Other .....	2 084	48 848	1 288	10 401	314	76
<b>Total .....</b>	<b>53 656</b>	<b>313 409</b>	<b>8 363</b>	<b>132 028</b>	<b>21 979</b>	<b>16 568</b>

(a) Includes industrial business for the Northern Territory.

**Premiums and Claims**

Details of premium income and of cash payments made in respect of policies are shown in the following table. This table does not show investment income or management and commission expenses and accordingly is not a revenue and expenditure table.

**Life Insurance: Premiums and Policy Payments, South Australia**

Year	Premiums and Considerations for Annuities	Death or Disability (a)	Payments				Total
			Maturity	Surrenders	Annuities	Cash Bonuses	
				\$'000			
1972 .....	81 381	9 224	17 047	13 075	125	164	39 635
1973 .....	90 332	10 387	19 681	16 380	103	185	46 735
1974 .....	100 290	12 528	23 219	22 869	121	196	58 933
1975 .....	114 824	14 296	24 599	27 776	86	395	67 152
1976 .....	124 781	14 358	26 602	31 448	85	369	72 862

(a) Includes 'Other'.

**Loans Outstanding**

In the following table details are given of mortgages on South Australian real estate, loans on policies registered in, and 'other' loans to persons resident in this State. Only those loans which form assets of the statutory funds are included.

**Life Insurance: Loans Outstanding, South Australia**

Loans	1972	1973	1974	1975	1976
Loans on:					
Mortgage of real estate...	81 054	79 671	83 150	84 969	85 926
Policies;					
Advances of premiums	4 129	4 350	4 729	5 070	5 579
Other .....	21 286	21 561	22 093	22 352	22 738
Other .....	2 868	3 009	2 618	2 209	2 231
<b>Total .....</b>	<b>109 338</b>	<b>108 590</b>	<b>112 591</b>	<b>114 600</b>	<b>116 474</b>



## GENERAL INSURANCE

General insurance in South Australia is conducted by private organisations and the State Government Insurance Commission which commenced business in January 1972. Some Government insurance, in particular workmen's compensation, is carried by the State Government's Accident Insurance Office and in addition, the State Bank of South Australia insures certain properties on which it has provided mortgage finance.

A number of Commonwealth Government instrumentalities also are engaged in insurance in South Australia, notably in respect of housing loans and export payments, but these activities are not included in South Australian statistics.

Companies, persons or firms of persons carrying on general insurance business are required under the Stamp Duties Act, 1923-1978 to take out an annual licence, such licence being the authority to carry on insurance business in the State. The licence fee varies with premium income. Under the Fire Brigades Act, 1936-1976 insurance companies contribute approximately 75 per cent of the cost of maintaining the services of the Fire Brigades Board.

Insurance for workmen's compensation and motor vehicle third party risks is compulsory under State legislation. Employers, unless specifically exempted, are required under the Workmen's Compensation Act, 1971-1974 to effect an insurance cover providing compensation for workmen suffering injuries in the course of their employment. Details of workmen's compensation provisions are given in Part 7.4 pages 324-5.

Under the Motor Vehicles Act, 1959-1976 all vehicles other than those belonging to the Crown must be covered by a third party policy protecting the owner against any liability for death or injury to others resulting from use of the vehicle. Particulars are given in Part 10.4 page 503.

Legislation affecting all insurance companies operating in Australia is embodied in the *Insurance Act 1973* which seeks to ensure the continued financial stability of these companies. This Act is concerned only with the solvency of all companies engaged in insurance business and not with contractual arrangements between policy holders and insurers or with the rate of premiums charged. It also provides for the continuation of the provisions of the State Acts referred to above. All deposits lodged with the Commonwealth Treasurer under the *Insurance (Deposits) Act 1932* will eventually be returned to insurers.

The statistics in this section are compiled from returns covering transactions of the State Government Insurance Commission, the Government Accident Insurance Office, State Bank and approximately 100 companies and company groups licensed to conduct general insurance business. Each return gives details of the organisation's activities during a twelve-month period ending within the year shown. Some re-insurance transactions are excluded from the returns to avoid duplication.

The following tables show some details of revenue and expenses relating to general insurance for the years 1972-73 to 1975-76. The tables contain selected items of statistics and should not be combined and construed as profit and loss statements or revenue accounts.

The first table shows premiums earned by the companies. Premiums represent the full amount receivable in respect of policies issued and renewed in the year less returns, rebates, and bonuses, paid or credited to policy holders in the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts shown differ from 'earned premium income' for the year. Premiums have increased over the period covered by the table and hence have been greater than earned premium income in each year. Investment income relates to interest, dividends, rents, etc. from investments made within the State.

General Insurance: Revenue, South Australia<sup>(a)</sup>

Source of Revenue	1972-73	1973-74	1974-75	1975-76
Premiums:			\$'000	
Fire and sprinkler leakage .....	10 594	12 398	13 113	16 863
Houseowners' and householders' .....	8 545	10 420	12 322	16 379
Loss of profits .....	1 487	1 679	2 106	2 818
Crop (including hailstone) (b) .....	181	864	1 242	1 144
Marine .....	3 204	3 552	3 933	4 244
Motor vehicle;				
Compulsory third party .....	15 469	19 670	33 902	43 357
Comprehensive (including motor cycles) .....	27 271	28 693	38 216	52 552
Employers' liability and workmen's compensation .....	18 639	34 246	61 576	68 984
Personal accident .....	4 256	4 908	4 890	5 530
Public liability .....	2 357	2 607	2 904	3 370
Burglary .....	1 112	1 215	1 279	1 605
Other .....	4 237	5 505	7 374	8 749
Total premiums .....	97 352	125 756	182 857	225 595
Revenue from investments .....	1 326	1 717	n.a.	n.a.
Total .....	98 678	127 473	n.a.	n.a.

(a) Before 1974-75 includes Northern Territory.

(b) Before 1974-75 'crop' was included with 'fire and sprinkler leakage'.

Details of claims and other expenses are given in the next table. Claims include provision for outstanding claims and represent claims incurred during the year. Other expenses mainly represent payments made during the year. Before 1974-75 income tax was included in taxation, and was based on income earned in previous years.

General Insurance: Expenses, South Australia<sup>(a)</sup>

Type of Expense	1972-73	1973-74	1974-75	1975-76
Claims:			\$'000	
Fire and sprinkler leakage .....	3 177	4 696	15 293	7 418
Houseowners' and householders' .....	2 982	3 679	27 747	12 892
Loss of profits .....	185	783	1 894	798
Crop (including hailstone) (b) .....	33	1 287	395	276
Marine .....	1 538	2 514	3 771	3 159
Motor vehicle;				
Compulsory third party .....	17 239	25 645	41 304	50 334
Comprehensive (including motor cycles) .....	17 743	21 078	31 391	32 477
Employers' liability and workmen's compensation .....	19 059	28 488	48 879	44 100
Personal accident .....	1 835	2 056	2 107	2 343
Public liability .....	931	1 249	2 065	2 648
Burglary .....	682	657	944	930
Other .....	1 764	2 501	4 968	4 937
Total claims .....	67 168	94 635	180 756	162 314

General Insurance: Expenses, South Australia<sup>(a)</sup> (continued)

Type of Expense	1972-73	1973-74	1974-75	1975-76
Other expenses:				
				\$'000
Contributions to fire brigades (c) . . . . .	1 752	2 437	3 350	4 935
Commission and agent charges . . . . .	9 776	11 612	14 016	14 142
Management . . . . .	18 685	21 465	28 296	31 215
Taxation . . . . .	1 839	1 355	2 379	2 065
Other underwriting expenses (c) . . . . .	n.a.	n.a.	1 364	1 280
Total expenses . . . . .	99 221	131 503	230 161	215 952

(a) Before 1974-75 includes Northern Territory.

(b) Before 1974-75 'crop' was included with 'fire and sprinkler leakage'.

(c) Includes Northern Territory.

## 12.3 OTHER PRIVATE FINANCE

## THE STOCK EXCHANGE OF ADELAIDE LIMITED

The Stock Exchange of Adelaide was formed in 1887 by the amalgamation of the Adelaide Stock Exchange and the Stock Exchange of South Australia. Basically the Exchange provides facilities for trading in securities, with transactions being conducted by brokers who act as agents for the investing public.

The Exchange operates under a set of rules and regulations which govern both the behaviour of companies, through the various listing requirements, and the conduct of members. Management is by a chairman, a vice-chairman and a committee of four, elected by the members.

Lists of quotations are issued by the Exchange twice daily and lists of dividends and new issues are produced weekly. The *Australian Stock Exchange Journal*, providing enlarged and additional information, is published monthly. Transfer marking and noting services are available to members of the Exchange and to the public through solicitors and accountants. A visitors gallery overlooking the trading floor enables the proceedings to be observed.

On 2 January 1972, the Member Exchanges of the Australian Associated Stock Exchanges (which includes Adelaide) adopted the policy of 'national listing'. This common listing meant that, at 30 June 1977, The Stock Exchange of Adelaide Limited had 1 255 companies on its Official List with a total equity market capitalisation (i.e. total market value of ordinary shares) of \$19 397 million. The face value of other listed securities at 30 June 1977 was Commonwealth Government loans \$15 354 million, public corporation loans \$1 369 million, debentures \$2 552 million, and unsecured notes \$177 million.

The figures in the following table have been supplied by the Stock Exchange.

It should be noted that several companies with diverse activities, including extensive oil and/or mining interests, are classified by stock exchanges as 'industrial' and are shown in that category in the table.

**Stock Exchange of Adelaide, Recorded Turnover of Securities**

Particulars	Year Ended 30 June				
	1973	1974	1975	1976	1977
	<b>TRANSACTIONS ('000)</b>				
Shares, Commonwealth Government loans, public corporation loans, debentures and unsecured notes . . .	55	43	32	35	38
<b>Shares:</b>	<b>NUMBER OF SHARES ('000)</b>				
Industrial . . . . .	19 950	17 379	14 767	19 521	21 274
Mining and oil . . . . .	21 883	14 908	9 202	11 588	12 460
<b>Total shares . . . . .</b>	<b>41 833</b>	<b>32 287</b>	<b>23 969</b>	<b>31 109</b>	<b>33 734</b>
<b>Shares:</b>	<b>MARKET VALUE (\$'000)</b>				
Industrial . . . . .	31 123	23 215	12 739	21 066	22 477
Mining and oil . . . . .	10 780	7 072	4 354	7 674	9 350
<b>Total shares . . . . .</b>	<b>41 903</b>	<b>30 287</b>	<b>17 093</b>	<b>28 740</b>	<b>31 827</b>
	<b>\$'000</b>				
Commonwealth Government loans, public corporation loans, debentures and unsecured notes:					
Face value . . . . .	3 698	2 232	2 339	2 224	1 959
Market value . . . . .	3 720	1 972	1 892	1 902	1 665

**BUILDING SOCIETIES**

The operations of building societies in South Australia are regulated by the Building Societies Act, 1975-1976 which is administered by the Registrar of Building Societies with whom all building societies must be registered. The societies fall into two categories—permanent societies and Starr-Bowkett societies.

Permanent societies are organisations which have rules or regulations that do not specify that they are to terminate on a specific date or when a specific object is achieved. They operate on a co-operative basis by borrowing predominantly from their members and providing finance to their members and other persons principally in the form of housing loans. An additional source of funds for certain permanent societies has been provided by the Commonwealth Government through the Housing Agreements and the *States Grants (Housing) Act 1971* (see pages 374-5). Advances for the purpose of building or acquiring homes are made to members and other persons by way of mortgage. Two permanent building societies are approved organisations in which the trustee of an estate may legally invest funds.

Starr-Bowkett societies have a limited life and derive their funds from regular subscription from members. These funds are used to make interest-free advances to members, with priority being determined by ballot. When all members have received a loan the process of winding up commences with share capital being returned to members as loans are repaid.

**Building Societies: Societies, Shareholders and Borrowers, South Australia**

Year	Societies		Shareholders		Borrowers	
	Permanent	Starr-Bowkett	Permanent	Starr-Bowkett	Permanent	Starr-Bowkett
1971-72 .....	10	20	44 925	4 879	7 482	2 075
1972-73 .....	10	19	62 276	4 577	8 701	1 829
1973-74 .....	11	18	94 788	4 255	11 608	1 594
1974-75 .....	10	17	126 844	4 205	13 243	1 397
1975-76 .....	10	17	<i>n.a.</i>	3 846	<i>n.a.</i>	1 306

Details of financial transactions by building societies during 1975-76 are given in the next table.

**Building Societies: Transactions, South Australia, 1975-76**

Particulars	Permanent	Starr-Bowkett	Total
<b>Income:</b>			
Interest on mortgage loans .....	14 979	—	14 979
Other .....	4 979	34	5 013
<b>Total .....</b>	<b>19 958</b>	<b>34</b>	<b>19 992</b>
<b>Expenditure:</b>			
Interest on borrowed funds .....	15 749	—	15 749
Administration and taxation .....	3 766	42	3 808
<b>Total .....</b>	<b>19 515</b>	<b>42</b>	<b>19 557</b>

Details of assets and liabilities of these societies, given in the following table, are compiled from individual returns with a variety of balancing dates. The figures for each year represent the aggregate of returns with balancing dates in that year.

**Building Societies: Assets and Liabilities, South Australia**

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
<b>Assets:</b>					
Advances on mortgages and shares .....	54 134	71 982	106 639	122 398	150 901
Land and buildings .....	1 903	1 966	2 206	2 620	4 060
Other investments .....	5 402	14 641	18 669	12 839	12 699
Cash and deposits .....	1 151	4 405	2 987	3 561	41 185
Other .....	740	906	1 160	1 549	3 454
<b>Total assets .....</b>	<b>63 331</b>	<b>93 900</b>	<b>131 662</b>	<b>142 968</b>	<b>212 299</b>

**Building Societies: Assets and Liabilities, South Australia (continued)**

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
	\$'000				
<b>Liabilities:</b>					
Subscriptions .....	39 262	66 011	101 919	111 279 (a)	174 313
Reserves and profits .....	1 319	1 404	1 547	1 733	2 727
Deposits .....	6 389	7 757	7 644	8 890	8 254
Loans due;					
To Government (b)....	14 606	16 546	17 221	16 861	16 359
To other lenders (incl. bank overdraft) .....	1 392	1 857	2 756	3 427	9 331
Other .....	363	325	575	778	1 315
<b>Total liabilities .....</b>	<b>63 331</b>	<b>93 900</b>	<b>131 662</b>	<b>142 968</b>	<b>212 299</b>

(a) Excludes non-withdrawable shares which are included in 'Other'.

(b) Loans made to permanent building societies under the Housing Agreements and the *States Grants (Housing) Act 1971*.

**CO-OPERATIVE SOCIETIES**

For the purpose of collecting the statistics in this section co-operative societies have been defined as producing, manufacturing, marketing or distributing societies which substantially fulfil the following conditions:

- (1) the greater part of the business of such a society to be transacted with its own shareholders;
- (2) any distribution of surplus after payment of dividend on share capital to be amongst suppliers or customers in proportion to the business transacted with the society;
- (3) limitation of voting power to one vote per person;
- (4) dividend on share capital not to exceed 10 per cent.

All such societies must be registered under the Industrial and Provident Societies Act, 1923-1974. The Registrar of Industrial and Provident Societies must approve the rules of each society before it may be registered.

Co-operative societies may be classified under three broad headings—those serving producers, those serving consumers, and those fulfilling both functions. In the following table societies and members have been classified under these headings.

**Co-operative Societies: Societies and Membership, South Australia**

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
<b>Societies:</b>					
Producers societies .....	39	41	43	39	39
Consumers societies .....	12	12	14	10	10
Producers and consumers societies .....	11	11	11	11	11
<b>Total societies .....</b>	<b>62</b>	<b>64</b>	<b>68</b>	<b>60</b>	<b>60</b>



## Co-operative Societies: Assets and Liabilities, South Australia, 1975-76

Particulars	Producers Societies	Consumers Societies	Producers and Consumers Societies	Total
\$'000				
<b>Assets (a):</b>				
Land and buildings .....	11 524	3 266	2 887	17 678
Fittings, plant and machinery ..	14 213	674	1 836	16 724
Stock .....	32 770	4 436	1 904	39 110
Sundry debtors .....	11 249	1 190	3 199	15 637
Cash .....	3 004	446	108	3 558
Profit and loss account .....	1 149	42	—	1 191
Other (b) .....	4 634	1 610	4 357	10 602
<b>Total .....</b>	<b>78 544</b>	<b>11 663</b>	<b>14 291</b>	<b>104 498</b>
<b>Liabilities:</b>				
Capital .....	8 343	3 357	786	12 486
Loan capital .....	17 469	3 436	4 921	25 826
Bank overdraft .....	15 455	464	2 420	18 339
Sundry creditors .....	9 141	960	2 606	12 708
Accumulated profits .....	305	681	—	986
Reserves and reserve funds (c) ..	11 267	1 634	1 270	14 172
Other (d) .....	16 563	1 131	2 287	19 982
<b>Total .....</b>	<b>78 544</b>	<b>11 663</b>	<b>14 291</b>	<b>104 498</b>

(a) Assets are shown at net value after deduction of provisions.

(b) Includes investments and advances to members.

(c) Excludes provision for depreciation and bad debts.

(d) Includes amounts due to members.

## CO-OPERATIVE CREDIT SOCIETIES

Co-operative credit societies are registered under the Credit Unions Act, 1976 which is administered by the Registrar of Credit Unions. Before 28 April 1977, when the Credit Unions Act, 1976 was proclaimed, these societies were registered under the Industrial and Provident Societies Act, 1923-1974.

The societies included in this collection, which began in 1970-71, are mainly credit unions or savings and loan societies. A credit union is defined as an organisation that:

(a) is registered under the Credit Unions Act, 1976; and

(b) operates on a co-operative basis by predominantly borrowing from and providing finance to its own members.

Details of assets and liabilities of these societies, given in the following table, are compiled from individual returns with a variety of balance dates. The figures are aggregates of returns submitted by societies for their relevant accounting periods closing on various dates during the financial years shown.

## Co-operative Credit Societies, South Australia

Particulars	1974-75	1975-76	1976-77
		Number	
Societies .....	32	32	33
Shareholders .....	60 805	67 160	70 794



## Co-operative Credit Societies, South Australia (continued)

Particulars	1974-75	1975-76	1976-77
		\$'000	
<b>Selected receipts and payments:</b>			
Deposits received (a) .....	52 398	73 563	103 436
Deposits repaid (b) .....	41 466	58 925	87 285
Loans paid over .....	27 196	44 981	59 096
Loan repayments (b) .....	18 528	33 118	44 947
<b>Income:</b>			
Interest on loans to members .....	3 586	5 394	7 522
Other .....	501	693	1 007
<b>Total</b> .....	<b>4 086</b>	<b>6 088</b>	<b>8 529</b>
<b>Expenditure:</b>			
Interest on deposits .....	2 462	3 558	4 851
Other (c) .....	1 757	2 327	3 156
<b>Total</b> .....	<b>4 218</b>	<b>5 886</b>	<b>8 007</b>
<b>Assets:</b>			
Loans to members .....	37 805	51 423	65 414
Cash in hand and at bank .....	965	790	924
Deposits with Credit Union Associations and Leagues .....	1 759	2 964	3 399
Investments .....	1 158	1 258	2 099
Other .....	506	1 193	2 145
<b>Total</b> .....	<b>42 193</b>	<b>57 628</b>	<b>73 981</b>
<b>Liabilities:</b>			
Share capital .....	543	602	668
Reserves and accumulated profits .....	-499	-221	317
Deposits .....	40 040	53 947	70 015
Budget savings accounts .....	483	487	569
Bank overdraft .....	278	568	1 826
Other borrowings (d) .....	644	1 291	
Other .....	704	954	587
<b>Total</b> .....	<b>42 193</b>	<b>57 628</b>	<b>73 981</b>

(a) Includes interest accrued. (b) Includes interest. (c) Includes dividends on shares, salaries and wages, administrative expenses, and provisions for taxation, doubtful debts, and long service leave. (d) Includes Credit Union Associations and Leagues.

## ESTATES OF DECEASED PERSONS

During recent years more than 80 per cent of the estates of deceased persons subject to the jurisdiction of the Supreme Court have been administered by executors following the grant of probate on wills left by the deceased. Should the executorship of a will fail for any reason, for example by the death or renunciation of a nominated executor, the Court issues 'letters of administration with the will annexed' but the more usual 'letters of administration' relate to the estates of persons who died intestate. Tables in this section contain details of estates covered by the three types of grant during specified years. The aggregate number of these estates is considerably less than the number of deaths in South Australia in corresponding periods.

Estates generally are those located in South Australia and not necessarily estates of deceased residents of this State. The net value of an estate is the gross value less proved liabilities; these liabilities do not include Commonwealth Government estate duty or State succession duties.

### Estates of Deceased Persons, South Australia

Year	Estates No.	Gross Value of Estates		Net Value of Estates \$'000	Average Net Value per Estate \$
		Real	Personal		
		\$'000	\$'000		
<b>MALES</b>					
1972.....	2 995	20 353	44 248	59 237	19 778
1973.....	2 995	20 932	46 272	62 404	20 836
1974.....	3 005	23 623	45 303	64 111	21 334
1975.....	3 347	35 151	59 514	87 131	26 033
1976.....	3 251	37 751	59 975	90 956	27 977
<b>FEMALES</b>					
1972.....	2 296	10 849	22 720	31 644	13 782
1973.....	2 278	12 258	23 951	33 800	14 838
1974.....	2 301	16 160	28 279	42 053	18 276
1975.....	2 806	22 579	33 935	53 035	18 901
1976.....	2 692	25 567	37 495	59 266	22 015
<b>PERSONS</b>					
1972.....	5 291	31 202	66 968	90 881	17 176
1973.....	5 273	33 190	70 223	96 203	18 244
1974.....	5 306	39 782	73 581	106 164	20 008
1975.....	6 153	57 730	93 449	140 166	22 780
1976.....	5 943	63 318	97 470	150 222	25 277

The distribution of estates through various size groups and the gross value of real and personal estate respectively in each group are shown in the following table for the years 1975 and 1976.

### Estates of Deceased Persons: Size and Structure of Estates, South Australia

Size of Net Estate	1975						1976			
	Estates	Value of Estates			Net	Estates	Value of Estates			Net
		Gross		Net			Gross		Net	
		Real	Personal				Real	Personal		
	(No.)	\$'000	\$'000	\$'000	No.	\$'000	\$'000	\$'000		
Under 2 .....	944	734	1 697	919	801	133	1 376	786		
2 and under 4 .....	728	199	2 463	2 151	651	155	2 336	1 934		
4 and under 6 .....	511	339	2 625	2 535	483	338	2 592	2 390		
6 and under 8 .....	392	589	2 481	2 748	338	462	2 277	2 346		
8 and under 10 .....	306	755	2 331	2 738	280	474	2 387	2 531		
10 and under 20 .....	1 208	9 463	10 421	18 196	1 080	7 017	10 317	15 843		
20 and under 30 .....	839	12 179	9 616	20 231	858	13 096	9 233	21 057		
30 and under 40 .....	362	5 800	7 371	12 528	480	9 059	8 235	16 453		
40 and under 50 .....	206	4 127	5 542	9 161	239	4 917	6 409	10 644		
50 and under 100 .....	419	10 075	21 121	29 032	474	11 861	22 798	32 957		
100 and under 200 .....	193	9 050	17 949	26 135	209	10 992	19 121	28 648		
200 and under 400 .....	38	2 910	7 453	9 968	44	3 531	8 236	11 302		
400 and over .....	7	1 510	2 377	3 824	6	1 283	2 154	3 332		
All estates .....	6 153	57 730	93 449	140 166	5 943	63 318	97 470	150 222		

In 1976, estates with an individual net value under \$2 000 accounted for approximately 13 per cent of the total number but less than 1 per cent of total net value. Estates under \$10 000 constituted approximately 43 per cent of total numbers but less than 7 per cent of total net value, while the few estates, about 12 per cent of the total, with an individual net value of \$50 000 or more accounted for approximately 51 per cent of the total net value. Real estate formed approximately 39 per cent of the total gross value for all estates in 1976.

The following table provides an analysis of estates on which probate or administration was granted during 1976 according to the age group of persons leaving those estates.

**Estates of Deceased Persons: Age and Sex of Deceased, Value of Estates  
South Australia, 1976**

Age of Deceased	Males				Females			
	Estates	Value of Estates			Estates	Value of Estates		
		Gross	Net	Average Net		Gross	Net	Average Net
No.	\$'000	\$'000	\$'000	No.	\$'000	\$'000	\$'000	
Under 21 .....	38	563	475	12.5	9	49	45	5.0
21 to 29 .....	67	1 201	1 013	15.1	10	91	83	8.3
30 to 39 .....	81	1 761	1 505	18.6	16	216	187	11.7
40 to 49 .....	139	3 415	2 940	21.1	62	1 171	1 016	16.4
50 to 59 .....	447	13 937	12 584	28.1	178	4 287	3 865	21.7
60 to 69 .....	809	26 911	24 991	30.9	379	9 747	9 057	23.9
70 to 79 .....	854	26 490	25 065	29.4	774	18 550	17 533	22.6
80 and over .....	785	22 418	21 413	27.3	1 243	28 651	27 188	21.9
Not stated .....	31	1 030	970	31.3	21	299	294	14.0
All ages .....	3 251	97 726	90 956	28.0	2 692	63 062	59 266	22.0

**REAL ESTATE MORTGAGES**

The Real Property Act, 1886-1975, provides for the registration of mortgages on real estate and details of new loans and discharges are given in the following table. The average value of new loans in 1976-77 was \$23 722 compared with \$18 257 in 1975-76.

**Mortgages: Real Estate, South Australia**

Year	New Loans		Discharges	
	No.	\$'000	No.	\$'000
1972-73 .....	56 801	514 203	52 939	241 141
1973-74 .....	60 390	704 678	58 246	363 310
1974-75 .....	47 204	720 366	46 434	308 546
1975-76 .....	58 888	1 075 131	52 764	361 022
1976-77 .....	62 834	1 490 567	53 026	468 733

**INSTALMENT CREDIT FOR RETAIL SALES**

Instalment credit is defined as covering all schemes under which repayment is made by regular predetermined instalments, such as time payment, budget accounts and certain personal loans. Credit schemes which do not involve repayment by regular predetermined

instalments, lay-bys and all credit transactions related mainly to the financing of 'producer' type goods such as plant, machinery and motor vehicles normally used for commercial purposes are excluded from the following statistics (before July 1973 the financing of 'producer' type goods was included). Also excluded are the financing of sales of land and buildings, property improvements, services such as repair work and travel facilities, and rental and leasing schemes.

Legislation controlling instalment credit schemes in South Australia is embodied in the Consumer Transactions Act, 1972-1973 and the Consumer Credit Act, 1972-1973, both effective from 1 November 1973. Since that date, it has not been possible to enter into a hire-purchase agreement in South Australia.

The Consumer Transactions Act repealed the Hire-Purchase Agreements Act, 1960-1971 and originated 'consumer contracts', 'consumer credit contracts' and 'consumer mortgages'. Generally consumer contracts and consumer credit contracts refer to the purchase by an individual of goods or services, where their price and the principal amount of credit extended does not exceed \$10 000. The Act specifies certain conditions and warranties to be implied in all consumer contracts and provides that these cannot be excluded, limited or modified by agreement between the parties to the contract. In contrast with previous legislation, under a consumer mortgage the consumer becomes the owner of the goods when they are delivered to him and the credit provider holds a mortgage over the goods as security for the amount payable. Hence goods may still be repossessed if the consumer breaches certain conditions of the agreement. However, subject to the conditions stipulated in the Act, the consumer may return the goods and rescind the consumer mortgage at any time. The Act also ensures that written contracts meet certain prescribed printing sizes to be enforceable.

The Consumer Credit Act repealed the Money-lenders Act and established a Credit Tribunal to which, in certain circumstances, consumers may apply for relief from the terms of a contract. The Tribunal also acts as licensing authority for those persons and corporations deemed to be credit providers under the Act and controls the conditions of operation of 'revolving charge accounts'. Information to be included in a credit contract, including the credit charge, is specified in detail by the Act.

Details of instalment credit provided during the years 1973-74 to 1976-77 are given in the following tables. In each of these tables the motor vehicle group includes new and used motor cars, motor cycles, caravans, motor parts and accessories. Included in household and personal goods are furniture and furnishings, domestic refrigerators, electrical goods, musical instruments, bicycles, and other household and personal goods.

#### Instalment Credit for Retail Sales, South Australia<sup>(a)</sup>

Year	Amount Financed (b)						Balances Outstanding at End of Period (d)	
	Motor Vehicles, etc.(c)		Household and Personal Goods		Total		Finance Companies	Other Businesses
	Finance Companies	Other Businesses	Finance Companies	Other Businesses	Finance Companies	Other Businesses		
	\$ million							
1973-74	84.8	1.1	7.5	29.3	92.3	30.4	151.6	26.0
1974-75	90.4	0.9	9.6	32.1	100.0	33.0	173.8	25.9
1975-76	118.9	0.9	11.0	37.3	129.8	38.1	216.4	26.9
1976-77	130.9	0.4	15.5	39.4	146.5	39.8	256.6	28.9

(a) The figures relate only to those finance companies or other businesses which (individually or as a group of related finance companies or other businesses respectively) have balances outstanding on an Australia-wide basis of \$500 000 or more on all types of finance agreements.

(b) Excludes hiring charges etc.

(c) Excludes motor vehicles normally used for commercial purposes.

(d) Includes hiring charges etc.

Instalment Credit for Retail Sales, Motor Vehicles etc., South Australia<sup>(a)</sup>

Year	Cars and Station Wagons				Other- Amount Financed (b)
	Number Financed		Amount Financed (b)		
	New	Used	New	Used	
	'000		\$ million		
1973-74	14.7	31.1	34.0	46.4	5.4
1974-75	16.5	27.8	42.8	43.5	4.9
1975-76	15.1	29.7	48.6	60.0	11.1
1976-77	11.9	29.5	45.5	72.8	13.1

(a) The figures relate only to those finance companies or other businesses which (individually or as a group of related finance companies or other businesses respectively) have balances outstanding on an Australia-wide basis of \$500 000 or more on all types of finance agreements. Excludes motor vehicles normally used for commercial purposes.

(b) Excludes hiring charges, etc.

## FINANCE COMPANIES

Finance companies are defined as incorporated companies which are mainly engaged in providing to the general public (businesses as well as persons in their private capacity) credit facilities of the following types: instalment credit for retail sales; personal loans; wholesale finance; factoring; other consumer and commercial loans; financial leasing of business plant and equipment; and bills of exchange. Special classes of financial institutions such as banks, insurance, investment and pastoral finance companies, and building and friendly societies are excluded, although merchant banking companies are included if they come within the scope of the collection.

The scope of the monthly collection from which the following tables are compiled excludes all finance companies whose balances outstanding on such finance agreements are less than \$500 000 on an Australia-wide basis. The following table gives a summary of the transactions of finance companies during the last five years.

Finance Companies: Summary of Transactions  
South Australia<sup>(a) (b)</sup>

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
	\$ million				
Leasing of business equipment and plant:					
Goods leased during the period	30.7	(e) 46.0	41.9	83.8	119.5
Balances outstanding at end of period (c)	60.8	(e) 88.8	105.6	156.3	235.6
Other transactions (d):					
Amount financed	379.0	(f) 485.9	455.8	697.3	891.2
Cash collections and other liquidations	414.1	(f) 501.8	581.8	707.2	938.7
Balances outstanding at end of period	388.0	(f) 466.5	502.4	696.4	930.5

(a) Includes Northern Territory for all years except 1972-73 and 1973-74.

(b) Excludes finance companies with balances outstanding of less than \$500 000.

(c) Basis of valuation is 'gross receivables'.

(d) Excludes liquidity placements.

(e) From 1973-74 includes all financial leasing companies.

(f) From 1973-74 includes companies directly financing the sales of related companies to the general public.

The amount financed, which is the actual amount of cash provided, may be classified according to the purpose of the loan. The comments below are offered to clarify the content of various items in the tables which follow:

- (1) Instalment credit for retail sales is defined in the same way as in the previous section (see page 596);
- (2) Personal loans include all loans to persons in their private capacity, other than loans classified as instalment credit or finance for housing and includes loans to persons for alterations or additions to existing dwelling units estimated to cost less than \$10 000;
- (3) Wholesale finance relates mainly to the financing of motor vehicle dealers stocks held under bailment or floor-plan schemes but includes also financing of other trading stock and the factoring of trade debts;
- (4) Finance for housing includes finance for houses, flats, home units and other dwelling units (excluding hotels, hostels, etc.), loans to persons for alterations or additions to existing dwelling units estimated to cost \$10 000 or more and finance for the purchase of residential blocks of land;
- (5) Other commercial loans include loans for the purpose of developing a tract of land into residential blocks, construction other than housing and the financing of sales of 'producer' type goods.

The following table shows amount financed classified according to the purpose of the loan for the years 1972-73 to 1976-77.

**Finance Companies: Amount Financed**  
**South Australia<sup>(a)</sup>**

Purpose of Loan	1972-73	1973-74 (b)	1974-75	1975-76	1976-77
			\$ million		
Instalment credit for retail sales . . . . .	91.2	(c) 92.3	100.0	129.8	146.5
Personal loans . . . . .	20.8	24.0	24.7	43.6	48.4
Wholesale finance . . . . .	134.4	174.4	228.8	304.8	413.2
Other consumer and commercial loans:					
Finance for housing;					
Purchase of existing housing . . . . .	49.4	64.9	22.9	70.3	84.0
Construction of housing . . . . .	41.9	51.5	32.1	71.8	99.3
Purchase of individual residential blocks of land . . . . .	13.4	20.6	9.5	20.9	22.3
Other commercial loans . . . . .	28.0	58.1	37.7	56.2	77.6
<b>Total . . . . .</b>	<b>379.0</b>	<b>485.9</b>	<b>455.8</b>	<b>697.3</b>	<b>891.2</b>

(a) Excludes finance companies with balances outstanding of less than \$500 000.

(b) From 1973-74 includes companies directly financing the sales of related companies to the general public.

(c) From 1973-74 the financing of 'producer' type goods was excluded from instalment credit for retail sales and included in other commercial loans.

Although finance for housing is dissected into three components for the amount financed, a similar dissection is not available for collections and other liquidations, or balances outstanding which are detailed in the following tables.



## APPENDIX A

# STATISTICAL SUMMARY

In the next 21 pages, a historical summary of some of the more important statistics relating to South Australia is shown. This is intended to present a general picture of the development of the State, with details being given (wherever they are available) for every fifth year for the period 1836-1956, and for each single year thereafter. Naturally the range of statistics available for the early years of the colony is very limited, and in addition it is not always possible to achieve perfect comparability in presenting details covering a period in excess of 130 years. Generally, all series on each page relate to either financial or calendar years but some financial year series have been included on pages which contain information shown in calendar years.

The first year shown on each page is the earliest for which any series on that page is available. Blanks at the top of some columns indicate that information relating to these particular series either was not collected or is not available for these early years, or is not available on a basis comparable to more recent statistics.

All major breaks in series are covered by footnotes, but minor changes are not so recorded, and the statistics should be interpreted with this in mind. An example can be quoted from the table on deaths from principal causes (page 605) where comparability is affected somewhat by changes in classification, particularly in 1950, but no footnote to this effect has been included.

The following standard symbols have been used throughout the summary:

<i>n.a.</i>	not collected, not available for publication
—	nil
<i>p</i>	preliminary information subject to revision
*	not yet available
———	break in continuity of figures



POPULATION<sup>(a)</sup>

Year	Population Estimate at 31 Dec.			Annual Population Growth			
	Males	Females	Persons	Recorded	Rate of	Total	Rate of
				Natural	Natural		
				Increase (b)	Increase (c)	Increase	Growth (%)
1836.....	309	237	546			546	
1841.....	8 755	6 730	15 485			855	5.84
1846.....	14 711	11 182	25 893		22.29	3 433	15.29
1851.....	37 321	29 217	66 538	1 786	26.85	2 838	4.46
1856.....	56 264	51 622	107 886	3 341	30.97	10 499	10.78
1861.....	67 409	63 403	130 812	3 589	28.00	5 230	4.17
1866.....	88 024	80 883	168 907	4 029	24.39	7 430	4.60
1871.....	97 019	91 625	188 644	4 704	25.21	4 098	2.22
1876.....	116 894	107 666	224 560	4 674	21.51	14 484	6.89
1881.....	152 453	133 518	285 971	6 696	23.81	9 578	3.47
1886.....	160 814	145 896	306 710	6 943	22.54	-2 603	-0.84
1891.....	168 826	155 895	324 721	6 526	20.23	5 774	1.81
1896.....	179 024	173 043	352 067	5 974	16.95	99	0.03
1901.....	(d)180 440	(d)178 890	(d)359 330	(d)5 105	14.29	(d)2 080	0.58
1906.....	184 803	181 710	366 513	5 049	13.90	3 892	1.07
1911.....	214 061	205 331	419 392	7 019	17.05	12 530	3.08
1916 (e).....	212 585	229 253	441 838	6 780	15.35	-4 147	-0.93
1921.....	251 170	250 572	501 742	6 992	14.07	10 736	2.19
1926.....	285 013	275 912	560 925	6 606	11.92	13 877	2.54
1931.....	289 397	287 682	577 079	4 191	7.28	2 612	0.45
1936.....	294 835	294 935	589 770	3 447	5.86	3 008	0.51
1941 (e).....	301 645	304 721	606 366	4 677	7.78	7 310	1.22
1946 (e).....	317 238	323 180	640 418	9 352	14.72	9 536	1.51
1951.....	375 188	368 597	743 785	10 279	14.03	20 942	2.90
1956.....	436 807	425 145	861 952	11 371	13.40	27 291	3.27
1957.....	448 411	437 841	886 252	11 960	13.68	24 300	2.82
1958.....	458 401	449 652	908 053	12 304	13.72	21 801	2.46
1959.....	471 868	462 629	934 497	12 429	13.49	26 444	2.91
1960.....	483 802	473 220	957 022	13 162	13.93	22 525	2.41
1961.....	494 600	484 800	979 400	14 584	15.03	22 400	2.68
1962.....	503 200	495 000	998 200	13 149	13.31	18 800	1.93
1963.....	514 700	507 700	1 022 400	13 185	13.05	24 200	2.42
1964.....	529 100	522 900	1 052 000	12 002	11.57	29 600	2.89
1965.....	544 300	538 700	1 083 000	12 146	11.38	31 000	2.95
1966.....	554 000	549 800	1 103 700	11 017	10.07	20 700	1.92
1967.....	559 300	556 700	1 115 900	11 315	10.19	12 200	1.10
1968.....	566 700	565 400	1 132 100	11 291	10.06	16 200	1.45
1969.....	574 700	574 700	1 149 400	12 640	11.09	17 200	1.52
1970.....	584 400	585 900	1 170 200	12 479	10.77	20 900	1.81
1971.....	597 100	598 300	1 195 400	13 310	11.32	25 200	1.63
1972.....	603 800	605 700	1 209 500	12 080	10.05	14 100	1.18
1973.....	612 800	614 500	1 227 200	10 572	8.68	17 700	1.46
1974.....	625 700	627 900	1 253 600	9 945	8.04	26 300	2.15
1975.....	628 000	629 300	1 257 300	10 039	8.01	3 700	0.30
1976.....	633 400	635 300	1 268 800	8 948	7.09	11 500	0.91
1977 p.....	640 800	643 000	1 283 800	9 426	7.38	15 000	1.18

(a) Figures before January 1962 exclude full-blood Aborigines. Figures from 1971 have been adjusted to take account of underenumeration and a conceptual change in the measure of residency. (b) Births and deaths of full-blood Aborigines, where identified in registrations, have been excluded from natural increase figures before 1 January 1962. (c) Excess of births over deaths per 1 000 of mean population. (d) Northern Territory included before 1901, but subsequently excluded. (e) During the 1914-18 War, defence personnel leaving the State were treated as departures, but during the 1939-45 War they were retained in the population and troops of other States and countries were excluded.

DEMOGRAPHY

Year	Live Births		Infant Deaths (a)		Deaths		Rates from Principal Causes (b)		
	Number	Rate (b)	Number	Rate (c)	Number	Rate (b)	Diseases of the Heart	Cancer	Tuberculosis
1846.....	937	36.19			360	14.02			
1851.....	2 759	41.47	539	195.36	973	14.62			
1856.....	4 488	41.60	610	135.92	1 147	10.63		0.05	0.98
1861.....	5 551	43.30	1 064	191.68	1 962	15.30		0.08	1.25
1866.....	6 782	41.06	1 385	204.22	2 753	16.67		0.16	1.25
1871.....	7 082	37.95	851	120.16	2 378	12.74		0.18	1.05
1876.....	8 224	37.84	1 228	149.32	3 550	16.34		0.35	1.22
1881.....	10 708	38.08	1 364	127.38	4 012	14.27		0.32	1.16
1886.....	11 177	36.29	1 409	126.06	4 234	13.75		0.34	1.34
1891.....	10 737	33.36	976	90.77	4 211	13.08		0.49	1.31
1896.....	10 012	28.44	1 015	101.02	4 038	11.47		0.53	1.17
1901.....	9 079	25.41	909	100.12	3 974	11.12		0.60	1.06
1906.....	8 921	24.57	675	75.66	3 872	10.66		0.77	1.08
1911.....	11 057	28.86	670	60.60	4 038	9.81	1.04	0.74	0.85
1916.....	11 857	26.85	868	73.21	5 077	11.50	1.29	0.81	0.93
1921.....	11 974	24.09	784	65.48	4 982	10.02	1.13	0.92	0.80
1926.....	11 483	20.73	509	44.33	4 877	8.81	1.00	0.96	0.71
1931.....	9 079	15.77	330	36.35	4 888	8.49	1.39	1.20	0.58
1936.....	8 911	15.16	277	31.09	5 464	9.29	1.87	1.26	0.40
1941.....	10 965	18.24	356	32.47	6 288	10.46	2.62	1.26	0.37
1942.....	11 278	18.51	448	39.72	6 712	11.02	2.73	1.25	0.41
1943.....	13 145	21.43	482	36.67	6 482	10.57	2.82	1.31	0.35
1944.....	13 311	21.49	387	29.07	5 984	9.66	2.64	1.27	0.30
1945.....	14 033	22.38	394	28.08	6 049	9.65	2.87	1.23	0.32
1946.....	15 813	24.90	428	27.07	6 461	10.17	3.03	1.29	0.29
1947.....	16 317	25.23	396	24.27	6 215	9.61	2.86	1.28	0.30
1948.....	15 870	24.00	472	29.74	6 748	10.20	3.08	1.42	0.28
1949.....	16 042	23.58	444	27.68	6 373	9.37	2.90	1.23	0.21
1950.....	17 306	24.39	416	24.04	6 740	9.50	3.05	1.24	0.19
1951.....	17 463	23.84	428	24.51	7 184	9.81	3.24	1.24	0.15
1952.....	17 884	23.69	413	23.09	7 050	9.34	3.10	1.29	0.12
1953.....	18 156	23.39	375	20.65	6 962	8.97	3.00	1.27	0.06
1954.....	18 227	22.89	388	21.29	7 179	9.01	3.11	1.22	0.08
1955.....	18 494	22.55	431	23.30	7 536	9.19	3.12	1.28	0.06
1956.....	18 964	22.35	377	19.88	7 593	8.95	3.24	1.16	0.05
1957.....	19 536	22.35	403	20.63	7 576	8.67	2.91	1.29	0.05
1958.....	20 047	22.35	449	22.40	7 743	8.63	2.93	1.26	0.07
1959.....	20 372	22.12	422	20.71	7 943	8.62	2.89	1.22	0.05
1960.....	20 966	22.19	397	18.94	7 804	8.26	3.06	1.21	0.04
1961.....	22 399	23.09	448	20.00	7 815	8.06	2.92	1.26	0.06
1962.....	21 361	21.67	409	19.15	8 232	8.35	3.06	1.37	0.03
1963.....	21 367	21.20	399	18.67	8 201	8.14	2.99	1.27	0.04
1964.....	20 866	20.16	397	19.03	8 906	8.61	3.24	1.32	0.01
1965.....	20 891	19.63	385	18.43	8 788	8.26	3.11	1.30	0.03
1966 (d).....	20 362	18.61	364	17.88	9 345	8.54	3.22	1.32	0.02
1967.....	20 386	18.37	346	16.97	9 071	8.17	3.09	1.35	0.02
1968.....	21 207	18.89	345	16.27	9 916	8.83	3.29	1.41	0.02
1969.....	21 977	19.28	347	15.79	9 337	8.19	2.96	1.47	0.02
1970.....	22 617	19.52	367	16.23	10 138	8.75	3.20	1.43	0.01
1971.....	22 996	19.39	366	15.92	9 686	8.17	2.89	1.40	0.02
1972.....	21 844	18.17	367	16.80	9 764	8.12	2.94	1.46	0.01
1973.....	20 407	16.75	276	13.52	9 835	8.07	2.95	1.47	0.01
1974.....	20 181	16.33	312	15.46	10 236	8.29	2.96	1.49	0.01
1975.....	19 986	15.95	222	11.11	9 947	7.94	2.85	1.52	0.01
1976.....	18 947	15.02	276	14.57	9 999	7.92	2.91	1.45	0.00
1977.....	19 260	15.08	221	11.47	9 784	7.66	2.80	1.50	0.00

(a) Under one year of age from 1871, under two years of age in prior years.  
 (b) Rate per 1 000 of mean population. (c) Rate per 1 000 live births registered.  
 (d) Vital events of full-blood Aborigines, where identified in registrations, were excluded before 1966.

## SOCIAL DEVELOPMENT

## Marriages and Divorces; Law and Order

Year	Marriages		Divorces (b)	Bank- ruptcies	Court Convictions		Police		
	Total	Rate (a)			Supreme Court (c)	Courts of Summary Juris- diction (d)	Active Strength	Net Expendi- ture by State	
1841.....				36	37				\$'000
1846.....	220	8.50		16	40				
1851.....	189	2.84		106	103			127	
1856.....	1 171	10.85		88	85	2 919		174	
1861.....	1 158	9.03		115	62	3 025		151	
1866.....	1 299	7.86		252	107	4 341		208	90
1871.....	1 250	6.70		247	91	4 864		187	74
1876.....	1 852	8.52		200	129	7 905		257	108
1881.....	2 308	8.21		696	213	13 231		371	164
1886.....	1 976	6.42	10	535	121	6 808		401	178
1891.....	2 315	7.21	5	142	85	6 918		388	172
1896.....	2 183	6.20	6	240	110	5 149		347	150
1901.....	2 304	6.45	6	165	98	4 968		359	152
1906.....	2 679	7.38	3	172	92	5 249		373	153
1911.....	4 036	9.80	20	190	74	7 303		423	183
1916.....	3 602	8.16	14	324	52	7 145		541	262
1921.....	4 383	8.82	88	155	97	8 968		566	391
1926.....	4 503	8.13	71	439	174	21 417		633	499
1931.....	3 069	5.33	138	996	274	14 760		763	641
1936.....	5 182	8.81	213	551	171	14 920		701	570
1941.....	6 855	11.40	273	284	177	21 990		707	689
1946.....	6 700	10.55	654	23	231	(e) 20 585	(e) 830	(e) 830	(e) 819
1947.....	6 668	10.31	695	32	246	24 491		833	888
1948.....	6 704	10.14	630	32	185	24 164		869	1 052
1949.....	6 247	9.18	590	52	205	22 834		928	1 208
1950.....	6 585	9.28	661	44	207	25 496		942	1 398
1951.....	6 646	9.07	637	53	307	28 675		913	1 647
1952.....	6 241	8.27	581	76	328	27 432		952	2 073
1953.....	6 149	7.92	628	91	330	30 229		982	2 429
1954.....	6 190	7.77	594	89	312	25 482		986	2 617
1955.....	6 226	7.59	624	106	340	29 264		969	2 517
1956.....	6 277	7.40	567	150	362	28 221	1 018		3 060
1957.....	6 581	7.53	529	244	459	30 658	1 143		3 303
1958.....	6 505	7.25	483	278	457	32 621	1 183		3 677
1959.....	6 614	7.18	503	366	499	34 203	1 243		4 084
1960.....	6 607	6.99	610	368	580	42 531	1 301		4 499
1961.....	6 804	7.01	718	561	606	52 155	1 376		5 043
1962.....	7 021	7.12	685	620	718	53 531	1 466		5 651
1963.....	7 302	7.24	765	584	745	57 189	1 441		5 825
1964.....	7 765	7.50	887	675	629	55 408	1 496		6 245
1965.....	8 680	8.16	852	582	713	62 238	1 558		6 912
1966.....	9 051	8.27	1 069	648	738	71 694	1 595		7 319
1967.....	9 434	8.50	929	660	707	87 110	1 660		8 417
1968.....	9 652	8.60	915	759	692	105 027	1 777		9 137
1969.....	10 599	9.30	963	659	712	105 966	1 845		9 568
1970.....	10 864	9.38	939	611	(f) 694	114 499	1 881		10 621
1971.....	10 833	9.21	1 264	(g) 626	931	110 543	1 971		12 181
1972.....	10 829	9.10	1 235	643	964	123 063	2 063		12 961
1973.....	10 806	9.01	1 582	554	982	(h) 94 068	2 167		15 107
1974.....	10 769	8.84	1 561	373	906	93 037	2 264		19 334
1975.....	9 843	7.95	1 812	437	989	104 402	2 461		28 035
1976.....	10 902	8.64	*	351	1 107	*	2 548		37 488

(a) Rate per 1 000 of mean population. (b) Dissolutions made absolute. (c) Distinct persons only. (d) Each type of offence counted separately when there are multiple charges against an individual. (e) Year ended 30 June from 1943. (f) From late 1970 covers also District Criminal Courts to which some jurisdiction transferred. (g) Year ended 30 June from 1971. (h) Excludes juvenile offenders from 1973.

SOCIAL DEVELOPMENT

Education

Year	Primary and Secondary					Tertiary		Further Student Enrol- ments
	Government Schools (a)		Non-government Schools			Uni- versities  Students (b)	Colleges of Advanced Education  Students	
	Students		Students					
	No.	Primary	Secondary	No.	Primary	Secondary		
1851.....	115	3	031					
1856.....	147	6	516					
1861.....	219	10	711	236				
1866.....	292	14	690	n.a.				
1871.....	307	15	791	n.a.				
1876.....	281	25	889	326		58		
1881.....	405	36	888	363		74		
1886.....	504	44	405	n.a.		197		
1891.....	552	47	094	285		246		
1896.....	639	59	944	232		320		
1901.....	706	63	183	230		591		
1906.....	708	57	270	215	(c) 9 753	626		
1911.....	743	53	494	1 800	(c) 11 121	641		
1916.....	857	63	935	(d) 218	(d) 12 785	491		
1921.....	973	77	111	3 067	171	13 951	1 338	
1926.....	1 019	79	204	6 527	188	16 139	1 575	
1931.....	1 075	81	218	10 503	186	14 310	2 092	
1936.....	1 100	75	411	9 280	174	13 993	2 025	
1941.....	1 006	63	303	10 761	167	13 915	2 211	
1946.....	811	61	242	11 870	145	16 310	3 723	
1947.....	782	63	853	11 723	143	16 468	4 045	
1948.....	773	66	653	11 550	142	17 169	4 266	
1949.....	759	71	337	11 922	146	18 426	4 126	
1950.....	743	76	369	12 732	148	19 655	4 069	
1951.....	728	81	642	14 106	146	20 677	3 720	
1952.....	716	89	630	15 121	146	22 393	3 612	
1953.....	723	97	262	16 933	148	23 631	3 565	
1954.....	716	105	022	17 972	157	24 949	3 555	
1955.....	701	111	909	19 485	157	26 840	3 617	
1956.....	699	118	365	22 134	163	29 050	3 828	
1957.....	694	123	132	24 734	163	30 504	4 424	
1958.....	674	125	678	28 189	161	32 425	4 816	
1959.....	668	129	850	33 042	162	33 896	5 300	
1960.....	681	132	372	37 901	163	35 370	5 723	
1961.....	688	135	274	41 889	165	35 652	6 250	
1962.....	682	136	924	46 499	164 (e) 24 962 (e) 11 440	12 354	6 824	
1963.....	682	140	520	49 637	166	24 677	7 416	
1964.....	685	145	042	54 026	170	24 761	8 203	
1965.....	700	150	809	57 811	172	24 605	13 007	8 658
1966.....	700	154	253	60 834	172	24 188	12 999	9 364
1967.....	674	157	424	65 630	173	23 533	13 469	9 658
1968.....	683	157	997	68 814	171	22 814	13 599	9 803
1969.....	676	159	682	71 599	171	22 257	14 203	10 128
1970.....	681	156	922	71 866	170	22 464	14 642	10 176
1971.....	662	156	458	74 982	169	22 669	15 018	10 682
1972..... (f) 615	154	886	77 926	163	22 232	15 233	11 124 (g) 4 291	78 540
1973.....	614	152	698	79 088	163	21 929	15 806	11 497
1974.....	613	152	901	79 578	157	22 399	16 494	12 264
1975.....	619	151	975	82 737	151	22 479	16 818	12 876
1976.....	625	151	499	82 115	147	22 177	17 122	13 493
1977.....	626	152	079	81 131	145	22 361	17 085	13 600

(a) Net enrolment to 1969, thereafter at census date (at or about 1 August). Includes Northern Territory before 1958. (b) Excludes students at Conservatorium of Music not also enrolled for degree or diploma subject. (c) On last school day. (d) Non-government schools compulsorily registered, previous years incomplete. From 1916 to 1961 net enrolment including Northern Territory. (e) From 1962 at census date (at or about 1 August). Excludes Northern Territory. (f) From 1972 includes only primary and secondary, before 1972 included technical institutions. (g) In approved courses at colleges of advanced education.

## STATISTICAL SUMMARY

## SOCIAL DEVELOPMENT

## Health

Year	Recognised Hospitals				Mental Hospitals (a)		Medical Practitioners Registered	General Nurses Registered
	Number of Hospitals	Patients Treated	Revenue		Admissions During Year	Patients at end of Year		
			State Govt Aid	Total				
			\$'000	\$'000				
1846.....	1				10	6	22	
1851.....	1	413			9	11	68	
1856.....	1	559			69	73	101	
1861.....	1	795			68	167	111	
1866.....	1	1 257			88	224	85	
1871.....	1	1 433			111	324	77	
1876.....	1	2 282			149	427	94	
1881.....	1	2 258			199	606	113	
1886.....	1	2 022			207	744	152	
1891.....	1	2 301			224	815	177	
1896.....	1	2 633			195	934	279	
1901.....	1	3 554			214	988	341	
1906.....	9	4 476			231	994	242	
1911.....	21	8 547	96	132	273	1 084	299	
1916.....	27	12 453	130	186	302	1 158	326	
1921.....	31	15 642	254	397	272	1 190	360	
1926.....	45	22 438	467	730	249	1 282	445	1 271
1931.....	51	26 505	356	574	250	1 395	457	1 601
1936.....	52	34 014	383	730	272	1 627	477	1 886
1941.....	55	40 593	607	1 063	247	1 905	814	2 562
1942.....	55	40 137	625	1 200	219	1 892	839	2 768
1943.....	57	41 620	642	1 301	197	1 889	846	2 914
1944.....	58	43 582	762	1 479	276	1 925	866	3 006
1945.....	(b)	(b)	(b)	(b)	(b)	(b)	883	3 153
1946.....	58	46 696	836	1 697	302	2 024	947	3 314
1947.....	59	52 388	1 135	2 133	332	2 107	983	3 380
1948.....	59	50 480	1 382	2 476	330	2 165	1 012	3 589
1949.....	60	53 558	1 671	3 065	398	2 213	1 053	3 808
1950.....	59	54 334	2 109	3 719	379	2 310	1 111	4 018
1951.....	60	57 401	2 694	4 503	452	2 411	1 172	4 199
1952.....	61	59 374	3 739	6 110	426	2 425	1 244	4 461
1953.....	62	61 681	4 673	7 442	498	2 534	1 202	4 585
1954.....	62	62 138	4 340	7 386	548	2 644	1 265	4 724
1955.....	63	64 310	5 524	8 819	516	2 612	1 348	4 884
1956.....	65	69 295	8 214	11 702	553	2 658	1 395	5 026
1957.....	65	73 249	11 370	15 449	543	2 594	1 469	5 122
1958.....	64	75 282	10 425	15 372	659	2 667	1 507	5 475
1959.....	65	79 426	10 260	15 638	712	2 643	1 601	5 583
1960.....	65	82 948	10 474	16 829	1 637	2 810	1 681	5 817
1961.....	66	87 386	10 155	17 414	1 846	2 833	1 739	6 123
1962.....	65	89 409	10 366	18 350	1 925	2 914	1 821	6 523
1963.....	65	94 144	10 007	19 307	2 604	2 799	1 883	6 879
1964.....	65	99 491	12 094	21 166	3 132	2 838	2 002	7 255
1965.....	65	105 098	14 171	24 084	3 061	2 752	2 080	7 699
1966.....	67	111 313	19 681	30 386	2 810	2 646	2 175	8 065
1967.....	65	117 693	22 138	34 532	2 866	2 497	2 282	8 467
1968.....	65	122 835	16 626	31 039	2 733	2 465	2 372	8 832
1969.....	65	132 864	21 364	37 064	2 964	2 283	2 474	9 275
1970.....	66	135 433	23 198	41 500	3 378	2 269	2 568	9 855
1971.....	67	135 927	32 971	53 942	3 527	2 193	2 707	10 506
1972.....	68	147 058	29 671	53 750	3 602	2 159	3 054	11 201
1973.....	69	158 261	37 951	64 633	3 225	2 208	3 154	11 923
1974.....	70	164 797	53 893	85 255	3 309	2 123	3 348	12 717
1975.....	71	168 832	82 194	124 930	*	*	3 767	13 863
1976.....	73	179 733	70 730	158 278	*	*	4 531	14 976
1977.....	81	190 806	87 294	206 060	*	*	*	*

(a) From 1959-60 covers all in-patients (certified and voluntary) in institutions. Before this covered only certified patients in two 'long-term' institutions. (b) Year ended 30 June from 1946.

## SOCIAL DEVELOPMENT

## Social Welfare

Year	Children Maintained or Sub- sidised by SA Govt	Pensions and Benefits Paid in South Australia by Commonwealth Government					Pensioners	
		Expendi- ture	Age and Invalid Pensions	Disability and Service Pensions (a)	Family Allowance (b)	National Health Services	Total (Includes Other)	Age and Invalid
1895-96	28.4							
1900-01	35.4							
1905-06	38.2							
1910-11	46.4						7 237	
1915-16	67.0	544	20				10 993	794
1920-21	95.0	910	1 028			2 060	12 320	14 663
1925-26	100.7	1 404	978			2 496	14 098	16 144
1930-31	103.7	1 982	994			3 074	20 602	16 653
1931-32	95.2	1 878	908			2 848	21 897	15 801
1932-33	90.9	1 826	844			2 726	21 461	15 517
1933-34	88.8	1 896	854			2 804	22 805	15 352
1934-35	87.8	2 068	892			3 016	24 517	15 248
1935-36	89.4	2 298	942			3 298	26 134	15 997
1936-37	89.4	2 522	1 036			3 622	27 308	16 340
1937-38	93.7	2 868	1 076			4 010	28 039	16 865
1938-39	94.0	2 836	1 098			4 008	28 577	16 680
1939-40	99.2	2 908	1 104			4 086	29 521	16 145
1940-41	101.4	3 032	1 088			4 192	29 642	15 424
1941-42	106.6	3 274	1 108	1 720		6 162	28 422	15 296
1942-43	113.3	3 628	1 274	1 810		7 076	27 423	16 333
1943-44	131.5	3 688	1 654	1 908		8 076	27 530	18 472
1944-45	143.1	3 624	1 838	1 870		8 276	27 507	22 071
1945-46	155.2	4 670	2 272	2 854	244	11 262	29 512	30 687
1946-47	197.8	5 102	2 692	3 196	856	13 212	32 387	35 117
1947-48	224.4	6 284	3 046	3 212	770	14 708	34 229	38 505
1948-49	255.6	7 170	3 718	4 024	1 054	17 442	35 470	42 931
1949-50	287.5	7 888	4 178	4 938	1 220	19 966	36 524	47 303
1950-51	337.6	8 600	5 214	7 564	2 122	25 216	36 582	51 589
1951-52	446.7	10 360	6 442	8 298	3 554	30 532	37 363	54 758
1952-53	466.8	12 616	7 130	9 540	4 154	25 878	39 700	58 591
1953-54	475.7	14 150	7 686	9 154	4 880	38 202	42 216	61 039
1954-55	491.2	15 310	8 778	9 428	5 824	41 560	45 147	63 767
1955-56	553.0	17 718	9 074	10 998	6 140	46 322	47 754	66 535
1956-57	494.0	19 244	9 575	10 500	6 710	48 926	50 209	68 291
1957-58	545.6	21 432	10 664	10 860	7 704	54 256	52 699	69 852
1958-59	674.6	23 150	10 860	12 618	9 868	60 460	55 181	71 331
1959-60	778.1	26 366	12 697	11 794	11 977	66 157	57 336	72 013
1960-61	914.8	28 537	13 722	14 092	12 811	73 594	60 483	72 695
1961-62	1 107.5	32 844	14 241	12 671	14 567	80 283	64 374	74 454
1962-63	1 129.9	33 951	14 867	12 861	16 066	83 393	64 156	73 239
1963-64	1 275.5	36 120	16 224	15 916	17 080	91 514	65 573	72 518
1964-65	1 516.8	38 509	16 006	16 563	18 948	96 362	66 798	70 678
1965-66	1 716.6	39 691	17 692	16 988	21 254	102 661	67 999	68 439
1966-67	1 914.4	43 720	16 776	19 063	25 100	111 394	70 521	66 624
1967-68	2 008.2	46 711	17 252	17 835	25 448	116 625	74 016	65 078
1968-69	2 235.9	50 828	19 065	18 162	28 411	128 940	76 616	62 986
1969-70	2 466.6	58 720	19 435	20 287	33 476	145 857	85 076	61 928
1970-71	2 912.8	64 714	20 405	18 284	41 773	161 687	88 936	60 406
1971-72	2 628.5	76 545	22 493	19 766	50 587	189 255	92 771	58 682
1972-73	3 079.3	101 625	25 917	22 780	57 851	236 747	104 350	59 707
1973-74	3 537.7	131 771	31 350	20 098	66 005	291 823	116 117	59 522
1974-75	4 858.0	184 218	41 774	20 237	82 399	400 590	123 627	59 130
1975-76	5 509.5	234 266	49 377	22 896	22 337	631 658	130 229	59 536
1976-77	*	273 814	59 709	87 491	*	*	136 473	60 472

(a) From 1974-75, war pensions called disability pensions.

(b) Family allowance known as child endowment before 1975-76.

## EMPLOYMENT AND UNEMPLOYMENT

Year	Total Wage and Salary Earners (a)		Factory Employment (b)		Rural Employment (c)		Unemployment Benefits		Unemployed Registered (End June) (d)
	Males	Females	Males	Females	Males	Females	Average No. on Benefit	Amount Paid	
	'000	'000	'000	'000	'000	'000		\$'000	
1911.....			22.6	5.3					
1925-26.....			33.1	6.9	38.8	3.2			1 391
1930-31.....			19.3	4.6	38.9	2.6			23 588
1931-32.....			18.9	4.9	39.2	2.8			23 738
1932-33.....			20.9	5.4	39.7	3.1			20 516
1933-34.....			23.7	5.7	40.0	3.4			16 559
1934-35.....			27.3	6.2	41.4	3.1			13 111
1935-36.....			31.4	7.1	41.7	2.6			10 970
1936-37.....			33.4	7.3	42.3	3.0			8 033
1937-38.....			36.3	7.8	41.4	2.9			7 737
1938-39.....			35.4	8.0	41.3	2.5			8 574
1939-40.....			36.3	8.7	38.7	2.8			5 978
1940-41.....			40.1	10.8	n.a.	n.a.			1 745
1941-42.....			49.9	15.3	n.a.	n.a.			—
1942-43.....			52.8	20.0	29.6	5.1			—
1943-44.....			50.7	18.9	32.9	6.5			—
1944-45.....			49.1	16.4	33.6	6.2			—
1945-46.....			49.5	13.7	35.7	5.5	778	146.4	3 147
1946-47.....			56.7	14.0	38.1	5.0	200	40.2	1 310
1947-48.....			59.1	14.3	38.1	5.8	51	8.0	778
1948-49.....			60.9	14.9	38.1	5.5	14	1.2	654
1949-50.....			63.1	15.3	38.6	7.0	326	66.2	431
1950-51.....			66.8	16.2	36.9	6.1	6	0.8	406
1951-52.....			68.0	15.9	37.4	4.7	17	2.0	1 613
1952-53.....			67.1	13.4	38.3	5.0	841	264.0	2 343
1953-54.....	178.6	55.7	70.7	14.8	37.8	5.6	270	100.4	964
1954-55.....	183.9	60.1	73.7	15.9	37.6	5.0	66	24.8	1 207
1955-56.....	194.0	64.0	76.1	16.4	37.3	4.7	77	22.2	1 948
1956-57.....	193.3	64.1	75.5	16.4	36.4	3.9	681	227.4	3 363
1957-58.....	194.4	65.9	75.9	16.6	35.2	2.7	1 534	611.0	5 082
1958-59.....	201.1	68.4	77.4	16.7	35.0	3.6	1 641	724.8	3 958
1959-60.....	206.4	72.6	81.3	17.7	33.8	2.6	1 223	498.2	4 547
1960-61.....	207.5	72.3	81.9	18.1	34.0	2.3	1 610	685.6	9 035
1961-62.....	211.2	76.7	81.8	17.3	33.7	2.1	3 643	1 785.6	6 886
1962-63.....	219.6	80.9	86.7	18.6	33.3	1.9	2 244	1 184.7	6 479
1963-64.....	229.4	86.0	90.9	19.9	33.2	1.4	1 513	751.1	4 339
1964-65.....	239.9	93.4	94.7	21.5	32.6	1.3	800	390.4	3 533
1965-66.....	(e) 242.8	(e) 106.1	96.2	22.1	32.1	1.0	1 306	708.9	7 357
1966-67.....	245.7	109.8	96.1	22.1	31.3	0.8	3 094	1 653.2	8 484
1967-68.....	254.0	116.2	98.9	22.5	29.7	0.7	3 299	1 637.4	8 359
1968-69.....	261.6	121.4	(f) 91.0	(f) 22.1	29.4	0.6	2 576	1 286.1	6 300
1969-70.....	266.6	129.9	94.6	23.8	28.9	0.6	1 636	1 008.4	6 360
1970-71.....	(g) 263.6	(g) 133.5	n.a.	n.a.	28.2	0.5	2 043	1 378.3	7 975
1971-72.....	263.4	136.8	96.2	25.4	27.3	0.5	3 564	2 930.1	12 328
1972-73.....	270.5	145.9	95.6	25.8	27.1	0.4	4 350	5 106.9	9 339
1973-74.....	278.4	161.0	98.7	29.4	26.6	0.4	3 246	6 142.9	(h) 7 983
1974-75.....	278.3	159.5	(i) 94.3	(i) 27.0	26.6	0.3	10 941	20 474.8	20 336
1975-76.....	278.5	166.5	90.3	25.8	n.a.	n.a.	15 118	36 002.0	19 331
1976-77.....	275.5	168.8	*	*	n.a.	n.a.	16 125	48 096.7	31 282

(a) At June; includes all industries except rural, defence forces and private domestic service. (b) Average employment including working proprietors during the year. (c) Permanent employees only. (d) Includes Northern Territory registrations. (e) From June 1966 a new definition of Labour Force (affecting mainly females) was adopted. (f) Direct comparisons with figures for previous years are not possible because of changes in the scope of the census and in the census units. (g) From June 1971 excludes trainee teachers, some of whom were classified as wage earners for earlier periods. (h) From July 1973 the definition of school leavers was changed. (i) From 1974-75 excludes single establishment enterprises employing fewer than four persons.

WAGES

Year	State Living Wage (a)		Federal Basic and Minimum Wage Rates (a) (d)		Minimum Weekly Wage Rates (b)	
	Males	Females	Males	Females	Males	Females
	\$	\$	\$	\$	\$	\$
1911			5-10			
1916	5-40		6-15		5-90	2-48
1921	7-95	3-50	7-95		8-94	4-52
1926	8-55	3-95	8-55		9-57	5-00
1931	6-30	3-15	5-81		7-50	4-39
1932	6-30	3-15	5-72		7-26	4-09
1933	6-30	3-15	5-96		7-34	4-10
1934	6-30	3-15	6-30		7-55	4-19
1935	6-60	3-15	6-70		7-79	4-24
1936	6-60	3-30	6-90		7-95	4-33
1937	7-40	3-65	7-40		8-58	4-68
1938	7-40	3-65	7-60		8-71	4-78
1939	7-80	3-80	7-70		9-41	4-96
1940	8-40	4-10	8-00		9-85	5-21
1941	8-70	4-35	8-40		10-58	5-54
1942	9-40	4-62	9-30		11-50	6-02
1943	9-40	4-62	9-40		11-61	6-12
1944	9-40	4-62	9-30		11-58	6-53
1945	9-40	4-62	9-30		11-60	6-72
1946	9-85	5-50	10-20		12-41	7-60
1947	10-60	5-90	10-60		13-78	8-80
1948	11-70	6-65	11-60		15-22	9-51
1949	12-50	6-85	12-60		16-44	10-10
1950	15-80	11-85	15-80	11-85	19-79	14-21
1951	19-50	14-60	19-50	14-60	23-60	17-02
1952	22-90	17-15	22-90	17-15	27-08	19-68
1953	23-10	17-30	23-10	17-30	27-35	19-91
1954	23-10	17-30	23-10	17-30	28-16	19-99
1955	23-10	17-30	23-10	17-30	28-50	20-18
1956	24-10	18-05	24-10	18-05	29-63	20-92
1957	25-10	18-80	25-10	18-80	30-69	21-95
1958	25-60	19-20	25-60	19-20	31-24	22-38
1959	27-10	20-30	27-10	20-30	33-99	23-92
1960	27-10	20-30	27-10	20-30	34-22	24-29
1961	28-30	21-20	28-30	21-20	35-46	25-20
1962	28-30	21-20	28-30	21-20	35-65	25-23
1963	28-30	21-20	28-30	21-20	36-40	25-52
1964	30-30	22-70	30-30	22-70	38-69	27-29
1965	30-30	22-70	30-30	22-70	39-48	27-75
1966	32-30	24-20	32-30	24-20	41-75	29-42
1967	33-30	25-20	(c) 37-05		43-79	31-32
1968	34-65	26-55	38-40		48-23	33-60
1969	(d) 34-65	(d) 26-55	41-90		50-76	35-94
1970	(d) 34-65	(d) 26-55	41-90		52-12	37-51
1971	37-85	29-00	45-90		59-38	44-16
1972	39-85	31-00	50-60		65-82	50-50
1973	43-15	34-10	59-60		75-20	62-11
1974	46-50	37-30	67-60	(e) 60-80	103-32	91-47
1975	(f)	(f)		82-40	115-13	103-34
1976	(f)	(f)		100-20	132-20	125-62
1977	(f)	(f)		111-80	145-50	138-64

(a) At end of year. (b) Adult rates, at end of year, for all industries excluding rural. (c) Provisions for minimum wages (for adult males only) were inserted in Federal Awards in July 1966 and basic wages were replaced by the total wage concept in July 1967. (d) An economic loading of 3 per cent of the sum of the living wage plus margin was added to all award rates of pay from December 1969 to January 1971. (e) Between May 1974 and June 1975 the minimum wage for adult males was extended to adult females in three steps. (f) Increased to \$48-20 and \$38-60 for males and females respectively from May 1975 and abolished in September 1975, award rates thereafter being specified as total wages.



## PRICES

Year	Retail Price Indexes: Adelaide						Agricultural Produce at Principal Markets		
	'C' Series (a)			Consumer (b)			Wheat (per tonne) (c)	Barley (per tonne)	Wool (per kg)
	Food and Groceries	Rent	All Groups	Food	Housing	All Groups			
1901	575						\$	\$	Cents
1906	549								
1911	570						12.71	16.53	15.59
1916	835	573	798				17.45	14.33	19.78
1921	941	819	989				29.39	19.49	24.74
1926	1 045	927	1 026				22.82	17.64	27.45
1931	789	755	837				8.41	9.92	12.52
1932	761	691	802				11.65	13.05	12.63
1933	731	694	789				10.33	9.83	13.45
1934	767	700	806				9.66	10.67	25.07
1935	780	736	820				11.17	11.95	15.04
1936	798	795	839				14.07	9.83	21.89
1937	826	832	859				18.92	17.90	25.09
1938	861	868	888				13.08	15.52	20.72
1939	897	888	906				8.34	11.95	16.71
1940	900	892	936				14.92	15.61	21.94
1941	905	893	988				16.42	21.43	21.76
1942	1 046	893	1 075				16.76	14.64	21.58
1943	1 003	893	1 102				19.51	19.84	25.07
1944	993	892	1 098				22.71	19.05	24.96
1945	1 002	892	1 102				20.69	24.07	24.71
1946	1 006	894	1 120				29.47	27.91	24.78
1947	1 067	897	1 165				36.49	39.33	40.50
1948	1 230	903	1 277				56.70	74.30	65.92
1949	1 351	912	1 393	38.6	38.4	45.0	45.64	36.95	81.09
1950	1 494	929	1 521	41.7	40.0	48.4	52.98	49.69	106.13
1951	1 931	949	1 833	48.2	42.5	54.6	53.76	51.54	237.28
1952	2 380	1 055	2 159	62.5	47.6	66.8	60.63	71.74	118.54
1953	2 444	1 155	2 246	68.7	55.9	73.1	61.77	71.12	137.74
1954	2 525	1 174	2 277	71.2	61.5	74.7	53.35	44.84	138.18
1955	2 657	1 247	2 354	72.9	63.2	75.6	49.05	59.97	120.66
1956	2 871	1 358	2 466	76.2	67.6	78.1	49.60	46.74	103.57
1957	2 710	1 468	2 463	78.9	72.3	81.2	53.28	48.50	135.63
1958	2 768	1 592	2 536	76.9	74.9	81.8	53.50	52.38	103.09
1959	2 998	1 674	2 647	80.7	76.7	83.6	51.51	49.43	83.84
1960				84.6	78.3	86.2	53.83	44.53	98.88
1961				90.9	83.2	89.8	55.37	40.39	88.49
1962				87.7	85.9	89.5	55.70	49.43	91.69
1963				86.6	86.7	89.1	53.94	48.94	98.92
1964				88.8	88.7	90.2	52.65	49.12	119.53
1965				93.9	92.1	93.9	51.88	50.84	97.31
1966				97.1	95.7	97.0	55.15	51.85	102.98
1967				100.0	100.0	100.0	54.67	52.56	99.69
1968				104.7	102.1	102.9	58.86	52.47	82.87
1969				106.4	104.7	105.3	50.01	41.09	91.76
1970				107.1	109.3	108.2	51.88	36.82	75.02
1971				109.5	115.9	112.5	52.98	49.21	59.74
1972				113.6	124.4	119.2	55.26	40.96	72.21
1973				123.1	133.3	126.5	56.09	59.30	178.07
1974				148.3	150.6	143.9	103.20	87.59	176.54
1975				163.7	185.3	169.7	108.41	106.11	120.12
1976				180.6	222.1	190.5	104.46	98.14	134.46
1977				205.8	253.8	220.1	90.36	106.52	173.39

(a) Base: Average all groups six capital cities 1923 to 1927 = 1 000.

(b) Base of each group 1966-67 = 100.0. Index numbers are for year ended 30 June in the year stated.

(c) Bulk wheat from 1962, previously bagged.

METEOROLOGY, ADELAIDE

Year	Rainfall		Evapora- tion	Sunshine	Temperature		
	Days of Rain	Total	Total	Total	Extreme Maximum	Extreme Minimum	Mean
	Days	mm	mm	Hours	°C	°C	°C
1841	93	456					
1846	114	683					
1851	128	786					
1856	118	633					
1861	147	611			42.8	1.7	17.4
1866	116	511			43.1	2.9	17.7
1871	137	591	1 345		44.1	3.0	17.8
1876	110	341	1 548		45.7	0.3	16.9
1881	135	458	1 422		41.0	1.8	16.7
1886	141	366	1 421	2 588.0	44.7	2.0	17.1
1891	113	356	1 322	2 752.7	39.3	2.3	16.8
1896	121	385	1 357	2 643.9	44.0	1.3	17.4
1901	124	457	1 494	2 522.6	43.3	1.8	17.5
1906	127	674	1 400	2 366.4	45.1	2.3	17.6
1911	127	407	1 223	2 415.0	39.3	1.6	17.2
1916	142	715	1 411	2 511.9	41.9	3.5	16.7
1921	100	575	1 478	2 658.0	43.1	2.8	18.2
1926	116	564	1 473	2 688.6	40.1	3.0	17.3
1931	145	565	1 517	2 534.5	45.9	3.1	16.8
1936	123	491	1 525	2 430.8	39.8	2.8	17.1
1941	126	573	1 604	2 471.8	43.3	3.3	16.9
1942	133	646	1 674	2 422.2	44.7	3.4	17.3
1943	135	453	1 595	2 416.7	44.6	2.7	16.4
1944	114	435	1 633	2 333.7	39.7	0.3	16.8
1945	105	453	1 523	2 431.2	41.7	1.1	16.7
1946	135	574	1 385	2 301.0	41.3	2.0	16.3
1947	145	556	1 573	2 311.3	40.7	3.3	16.9
1948	122	544	1 622	2 401.7	43.4	2.9	16.3
1949	119	463	1 492	2 317.7	38.0	2.6	15.8
1950	91	408	1 657	2 677.5	40.0	3.6	17.0
1951	135	646	1 645	2 338.7	40.5	2.6	16.9
1952	128	508	1 523	2 459.2	40.8	1.6	15.8
1953	121	508	1 712	2 584.7	41.3	3.9	16.6
1954	109	425	1 680	2 502.6	39.4	3.4	16.7
1955	134	624	1 677	2 396.1	42.8	3.6	16.7
1956	154	692	1 638	2 378.6	38.3	4.1	16.4
1957	110	424	1 736	2 672.5	40.9	3.4	16.8
1958	121	446	1 672	2 454.7	39.0	1.2	16.4
1959	88	288	1 750	2 591.9	43.3	3.1	17.3
1960	129	586	1 606	2 355.6	41.8	2.4	16.3
1961	122	379	n.a.	2 586.3	40.8	2.9	17.8
1962	125	456	n.a.	2 559.1	42.7	4.2	17.2
1963	118	621	1 620	2 369.1	39.9	3.3	17.0
1964	135	556	1 507	2 199.5	40.3	2.3	16.3
1965	111	339	1 648	2 439.1	38.8	2.6	17.3
1966	123	495	1 612	2 431.6	40.7	3.3	16.9
1967	89	257	1 939	2 841.3	39.0	3.9	17.3
1968	141	653	1 870	2 409.7	43.1	2.2	17.0
1969	112	525	1 783	2 664.7	41.1	3.9	16.7
1970	149	483	1 866	2 657.8	40.5	2.9	16.6
1971	147	672	1 813	2 624.4	39.6	4.2	17.1
1972	106	446	1 947	2 966.8	39.6	2.3	17.3
1973	129	675	1 740	2 686.4	40.5	3.7	17.7
1974	n.a.	639	1 561	2 584.3	36.9	3.6	17.2
1975	n.a.	522	1 635	2 596.2	41.2	3.8	17.4
1976	n.a.	366	1 636	2 831.0	40.5	3.3	16.7
1977	n.a.	400	1 665	2 876.1	40.3	3.6	17.2

## STATISTICAL SUMMARY

## RURAL PRODUCTION

## Land Cultivation

Year	Rural Holdings	Area of Rural Holdings	Area under Crop		Area of Pastures Top-dressed	Area Under Irrigation
			Fertilised	Total		
	No.		'000 hectares			
1841-42				3		
1846-47				14		
1851-52				33		
1856-57				82		
1861-62				162		
1866-67				245		
1871-72				339		
1876-77				497		
1881-82				873		
1886-87				925		
1891-92				780		
1896-97				830		
1901-02			335	905		
1906-07			629	873		
1911-12	27 120	47 012	1 010	1 200		
1916-17	29 278	52 475	1 156	1 468		
1921-22	29 693	54 311	1 197	1 367		9.1
1926-27	29 654	54 867	1 430	1 572	66	14.3
1931-32	30 648	52 354	1 705	2 112	56	17.3
1936-37	31 321	55 433	1 619	1 853	366	17.1
1941-42	30 565	58 936	1 409	1 609	427	18.5
1942-43	27 934	58 859	1 062	1 391	382	n.a.
1943-44	27 826	58 488	789	1 117	285	n.a.
1944-45	27 867	55 639	926	1 287	293	n.a.
1945-46	27 635	57 670	1 228	1 548	346	17.1
1946-47	28 040	59 154	1 366	1 572	450	18.7
1947-48	27 597	57 624	1 367	1 559	563	17.2
1948-49	28 110	59 377	1 327	1 521	705	19.5
1949-50	27 900	59 312	1 263	1 464	725	19.9
1950-51	28 248	61 403	1 316	1 488	753	32.0
1951-52	28 698	61 425	1 284	1 496	870	23.6
1952-53	28 860	61 791	1 270	1 449	940	23.1
1953-54	29 220	60 830	1 350	1 529	1 144	25.1
1954-55	28 092	60 452	1 404	1 576	1 272	28.1
1955-56	28 585	60 689	1 378	1 607	1 416	28.7
1956-57	27 936	60 675	1 376	1 610	1 488	26.7
1957-58	27 971	61 530	1 401	1 581	1 621	32.9
1958-59	28 105	61 639	1 494	1 679	1 504	34.4
1959-60	28 527	62 903	1 489	1 643	1 405	40.8
1960-61	28 711	63 316	1 751	2 010	1 335	41.3
1961-62	28 886	63 494	1 644	1 825	1 450	43.9
1962-63	28 922	63 413	1 787	1 996	1 518	45.6
1963-64	28 711	64 307	1 938	2 177	1 616	47.7
1964-65	28 754	63 517	1 932	2 141	1 908	49.8
1965-66	28 759	64 505	1 971	2 142	2 061	52.1
1966-67	28 957	65 361	2 073	2 322	2 119	56.2
1967-68	29 058	65 059	2 037	2 270	2 076	70.1
1968-69	29 137	65 603	2 431	2 783	1 728	70.4
1969-70	29 035	65 839	2 138	2 407	2 008	75.3
1970-71	29 087	65 795	1 884	2 141	1 938	77.3
1971-72	29 095	65 146	2 113	2 478	1 822	76.1
1972-73	29 001	65 372	1 864	2 084	2 033	83.1
1973-74	28 738	64 843	2 146	2 451	2 425	80.2
1974-75	28 185	63 825	1 986	2 257	2 138	78.9
1975-76	(a) 25 143	63 577	1 821	2 116	1 133	77.9
1976-77	(a) 21 597	63 052	1 785	2 036	1 408	n.a.

(a) Change in scope of the Agricultural Census. See Part 9.1.

RURAL PRODUCTION

Crop Areas and Yields

Year	Cereals for Grain						Hay (a)	Orchards (b) (c)	Vineyards (b)
	Wheat		Barley		Oats				
	Area	Yield per Hectare	Area	Yield per Hectare	Area	Yield per Hectare			
	'000 hectares	Tonnes	'000 hectares	Tonnes	'000 hectares	Tonnes	'000 hectares		
1841-42	2	1-40		1-12		1-12			
1846-47	11	1-34	1	1-68	1	0-90			
1851-52	22	0-85	2	0-92	1	0-98			0-1
1856-57	66	1-68	3	1-19	1	0-90	9	0-4	0-3
1861-62	126	0-74	4	0-89	1	0-91	25	0-7	1-6
1866-67	186	0-96	5	1-13	2	1-00	45	0-9	2-6
1871-72	280	0-39	7	0-53	2	0-49	40	1-1	2-2
1876-77	439	0-36	4	0-60	1	0-48	37	1-3	1-8
1881-82	716	0-31	5	0-64	1	0-48	135	1-8	1-7
1886-87(d)	797	0-37	7	0-73	3	0-56	128	n.a.	2-1
1891-92	628	0-28	5	0-52	5	0-29	123	3-6	5-0
1896-97	685	0-11	6	0-42	16	0-21	137	4-8	7-4
1901-02	706	0-31	6	0-88	14	0-61	150	6-6	8-4
1906-07	683	0-70	11	0-98	23	0-70	121	7-4	9-1
1911-12	887	0-62	17	0-97	44	0-56	211	9-4	9-7
1916-17	1 124	1-11	42	0-94	61	0-54	196	11-7	11-8
1921-22	965	0-70	69	1-08	51	0-46	226	13-1	16-8
1926-27	1 120	0-86	104	1-01	62	0-50	201	12-8	20-3
1931-32	1 648	0-79	98	1-06	84	0-50	218	11-8	21-2
1936-37	1 238	0-63	123	0-78	168	0-26	218	12-0	22-7
1941-42	941	0-88	194	1-37	118	0-58	226	12-0	23-5
1946-47	1 019	0-75	203	0-94	102	0-49	133	11-4	23-6
1947-48	961	0-92	228	1-53	125	0-78	120	11-5	23-8
1948-49	835	0-85	282	0-97	116	0-41	95	12-0	24-2
1949-50	767	1-01	281	1-03	106	0-59	119	10-9	24-4
1950-51	748	1-13	310	1-23	110	0-58	106	11-6	25-1
1951-52	653	1-14	337	1-13	157	0-63	104	11-9	24-8
1952-53	648	1-48	379	1-55	150	0-81	87	11-6	24-5
1953-54	619	1-34	454	1-42	113	0-69	106	12-0	25-1
1954-55	687	1-25	413	1-01	138	0-60	104	12-3	24-5
1955-56	651	1-21	422	1-32	172	0-77	132	13-4	24-2
1956-57	582	1-47	494	1-56	173	0-87	121	13-8	23-2
1957-58	539	0-75	490	0-81	173	0-36	118	14-3	23-2
1958-59	570	1-53	539	1-58	195	1-12	170	15-1	23-0
1959-60	627	0-52	522	0-52	205	0-22	99	15-1	23-0
1960-61	797	1-58	630	1-52	207	1-00	159	15-3	23-0
1961-62	902	1-02	514	0-94	131	0-61	84	15-6	23-4
1962-63	1 050	0-99	426	0-96	168	0-62	116	16-4	23-6
1963-64	1 134	1-30	455	1-21	203	0-82	145	16-9	23-7
1964-65	1 104	1-30	443	1-38	180	0-91	127	17-4	23-8
1965-66	1 111	0-98	444	0-94	184	0-55	121	17-8	23-8
1966-67	1 198	1-22	448	1-20	206	0-91	195	17-9	23-1
1967-68	1 159	0-63	468	0-60	212	0-28	174	18-3	23-5
1968-69	1 517	1-49	572	1-17	209	1-03	249	18-0	24-5
1969-70	1 299	1-24	560	1-23	150	0-80	155	18-1	26-2
1970-71	802	0-98	693	1-07	195	0-78	196	18-3	27-7
1971-72	1 069	1-32	784	1-34	169	0-98	245	17-2	28-8
1972-73	986	0-83	692	0-74	142	0-52	210	16-7	29-5
1973-74	1 432	1-25	627	1-26	152	0-93	268	16-9	29-6
1974-75	1 220	1-22	701	1-62	135	0-83	190	16-6	30-4
1975-76	958	1-19	832	1-32	119	0-90	159	16-5	31-2
1976-77	839	0-99	855	1-04	117	0-77	164	15-8	31-2

(a) Wheaten only to 1906-07, thence all kinds.

(b) Bearing and non-bearing.

(c) From 1949-50, private orchards and those no longer worked have been omitted.

(d) Statistics not collected and particulars estimated.

## RURAL PRODUCTION

## Livestock and Associated Produce; Farm Machinery

Year	Livestock Numbers		Wool Production	Milk Production	Slaughtering		Farm Machinery		
	Sheep	Cattle			Sheep and Lambs	Cattle and Calves	Tractors	Shearing Machines	Milking Machines
		Total	Dairy Cows	'000 kg					
1841-42	250	21							
1846-47	681	57							
1851-52	1 250	100							
1856-57	1 962	273							
1861-62	3 038	265	5 791						
1866-67	3 912	124	8 954						
1871-72	4 412	143	11 752						
1876-77	6 133	219	19 253						
1881-82	6 804	294	22 118						
1886-87	6 542	285	22 934						
1891-92	7 646	399	26 133						
1896-97	6 324	337	23 558						
1901-02	5 012	225	75 20 209						
1906-07	6 625	326	98 22 193						
1911-12	6 172	394	122 27 372	127 077	1 276	87			
1916-17	5 091	289	114 17 025	136 174	686	62			
1921-22	6 257	419	166 26 202	188 199	1 208	95			
1926-27	7 284	340	127 32 824	183 817	1 091	143	1 820		420
1931-32	6 609	265	128 30 400	227 309	1 379	81	3 992		380
1936-37	7 905	328	170 34 747	289 581	1 697	166	4 563		409
1941-42	10 246	399	179 47 683	358 687	2 070	154	n.a.	n.a.	n.a.
1942-43	10 371	424	185 49 277	357 323	2 272	171	6 705	2 976	1 659
1943-44	10 360	415	188 52 374	355 504	2 480	189	7 064	3 297	1 963
1944-45	8 474	391	187 48 402	328 228	3 065	175	8 044	3 770	2 206
1945-46	6 787	374	176 33 386	360 732	2 017	148	9 211	3 978	2 349
1946-47	7 959	424	187 42 193	426 878	1 662	146	9 456	4 306	2 839
1947-48	9 055	445	197 52 821	420 513	1 665	148	9 664	4 932	3 238
1948-49	9 366	461	203 52 120	415 058	2 011	189	11 271	5 817	3 665
1949-50	9 477	464	203 54 997	406 420	2 317	201	13 709	6 846	4 198
1950-51	10 167	433	184 56 873	379 826	2 022	218	16 128	8 134	4 590
1951-52	11 470	437	176 61 454	393 237	1 547	216	18 184	9 054	4 909
1952-53	12 037	483	183 71 966	382 781	2 353	187	19 750	9 733	5 418
1953-54	11 838	491	192 66 002	386 418	2 637	220	20 842	10 302	5 876
1954-55	12 817	524	199 70 652	412 330	2 799	233	23 110	11 452	6 363
1955-56	13 585	566	195 78 788	410 739	2 358	227	24 345	12 134	6 920
1956-57	14 984	622	195 85 642	408 694	2 329	252	26 012	12 690	7 208
1957-58	15 237	597	191 84 297	366 415	3 278	283	27 288	13 280	7 344
1958-59	15 634	576	188 84 750	373 234	3 145	287	28 532	13 778	7 537
1959-60	14 025	500	170 89 942	357 323	3 899	238	28 965	13 973	7 575
1960-61	14 952	561	170 80 473	395 510	2 784	174	30 674	14 317	7 589
1961-62	16 415	659	183 93 886	434 152	3 140	201	31 788	14 532	7 707
1962-63	15 737	679	190 94 050	433 697	3 467	254	31 671	14 595	7 553
1963-64	16 402	694	185 95 481	433 244	2 996	279	33 231	14 885	7 438
1964-65	17 289	697	182 97 856	465 065	3 100	275	34 164	15 172	7 328
1965-66	17 993	690	176 104 160	447 325	3 474	277	33 998	15 386	7 040
1966-67	17 864	687	170 107 725	448 699	3 358	265	35 829	15 392	6 634
1967-68	16 405	695	157 101 000	403 693	4 019	245	36 590	15 758	6 645
1968-69	18 392	865	163 105 714	467 377	2 977	220	36 574	15 693	6 263
1969-70	19 747	1 026	149 124 529	482 959	4 232	249	37 264	15 746	5 947
1970-71	19 166	1 196	145 117 258	469 773	5 101	264	37 023	15 852	5 571
1971-72	17 970	1 495	151 117 922	457 732	5 144	290	37 197	n.a.	n.a.
1972-73	15 651	1 583	148 106 006	424 265	4 549	384	37 258	n.a.	n.a.
1973-74	16 431	1 692	138 100 131	434 107	2 595	359	37 588	n.a.	n.a.
1974-75	17 621	1 869	142 107 452	426 371	2 984	465	38 355	n.a.	n.a.
1975-76	17 279	1 891	142 101 912	397 500	3 561	549	n.a.	n.a.	n.a.
1976-77	15 132	1 608	126 98 442	354 912	3 426	656	n.a.	n.a.	n.a.

MINING AND MANUFACTURING PRODUCTION

Year	Mining			Value of Production (b)	Manufacturing (a)	
	Principal Minerals Produced				Number of Establishments	Value Added
	Copper Ore and Concentrate	Coal	Iron Ore			
	Tonnes	'000 tonnes	'000 tonnes	\$'000		\$'000
1846	6 565			285		
1851	7 841			622		
1856	11 980			825		
1861	11 440			920		
1866	23 661			1 657		
1871	26 948			1 347		
1876	28 597			1 205		
1881	25 871			842		
1886	18 713			554		
1891	16 894		7	551		
1896	5 030		—	496		
1901	8 743		—	1 079		
1906	8 340		76	1 652		
1911	6 017		43	900	1 314	9 148
1916	7 396		191	2 504	1 266	9 748
1921	1 557		515	2 086	1 438	14 556
1926	235		593	2 924	1 791	25 348
1931	22		293	1 297	1 644	15 510
1936	458		1 918	5 241	1 895	23 339
1941	615		2 276	7 074	2 230	33 832
1942	398	2	2 156	6 342	2 167	49 132
1943	104	—	2 218	6 287	2 134	56 732
1944	137	35	2 062	6 085	2 149	56 823
1945	136	42	1 544	4 917	2 182	54 530
1946	—	138	1 847	6 101	2 395	51 203
1947	—	196	2 180	7 253	2 707	62 133
1948	4	243	2 067	7 514	2 865	77 339
1949	3	350	1 471	6 236	2 927	87 443
1950	—	266	2 388	8 857	3 046	104 706
1951	2	395	2 439	9 875	3 141	135 618
1952	5	424	2 727	12 094	3 245	166 493
1953	2	456	2 633	12 406	3 339	178 378
1954	3	503	2 913	17 160	3 577	200 443
1955	—	463	3 093	(c) 41 419	3 750	222 055
1956	12	489	3 645	47 853	3 908	241 872
1957	40	619	3 444	46 352	4 063	253 532
1958	53	767	3 406	47 076	4 168	266 570
1959	67	701	3 478	49 332	4 235	279 620
1960	30	899	3 492	50 870	4 684	325 947
1961	8	1 133	4 055	58 242	5 042	340 123
1962	4	1 414	3 567	53 958	5 519	347 828
1963	16	1 536	4 310	62 431	5 766	379 142
1964	55	1 764	4 437	67 597	5 826	427 356
1965	116	2 048	4 463	67 863	5 887	498 588
1966	143	2 053	4 876	72 342	6 065	527 477
1967	1 470	2 077	4 645	69 345	6 222	563 764
1968	518	2 112	5 566	77 398	6 255	631 104
1969	3 666	2 246	7 042	98 526	(d) 2 994	(d) 643 079
1970 (e)	(f) 249	2 155	7 425	104 195	2 977	714 579
1971	2 287	1 626	7 400	112 276	n.a.	n.a.
1972	2 819	1 536	6 301	111 623	2 979	802 975
1973	9 662	1 571	6 874	134 274	2 914	896 691
1974	8 830	1 494	6 065	131 446	2 984	1 109 748
1975	10 037	1 798	5 448	125 978	(g) 2 131	(g) 1 335 276
1976	18 433	1 819	4 479	131 847	2 287	1 486 000

(a) Year ended 30 June. (b) Value at site of production. Quarries included from 1916. (c) Comparability affected by revaluation of iron ore. (d) For a description of the changes in definitions see pages 439-40. (e) Year ended 30 June from 1970. (f) Metallic content from 1969-70. (g) From 1974-75 excludes single establishment enterprises employing fewer than four persons.

## GROSS VALUE OF RURAL PRODUCTION

Year	Agricultural				Pastoral		Dairying	Total Rural Production
	Wheat	Barley	Vine and Orchard Fruit	Total	Wool (a)	Total		
	\$'000							
1916-17	21 729	599	1 653	27 677	4 274	11 200	2 759	42 909
1921-22	12 577	1 227	3 491	23 221	5 752	8 296	3 678	37 273
1925-26	17 979	1 656	3 352	28 307	8 591	12 930	4 171	47 629
1926-27	19 052	1 685	4 082	30 181	8 937	12 140	3 895	48 357
1927-28	13 247	1 497	3 394	23 257	11 338	14 584	4 125	44 464
1928-29	12 845	1 737	3 909	23 880	9 308	12 472	3 810	42 375
1929-30	10 243	1 448	3 819	21 059	5 098	8 183	3 892	35 055
1930-31	8 091	893	3 241	15 708	3 608	5 801	3 121	26 335
1931-32	17 163	1 363	3 442	25 291	3 843	5 452	3 140	35 444
1932-33	13 097	1 371	3 463	20 921	4 619	5 834	3 654	32 030
1933-34	10 933	1 280	3 618	19 533	9 013	10 608	3 108	34 776
1934-35	10 318	1 553	3 882	19 965	5 309	7 706	3 091	32 489
1935-36	13 135	1 457	3 953	22 863	8 116	10 885	3 797	39 126
1936-37	14 955	1 766	4 191	26 044	8 720	12 315	4 310	44 366
1937-38	15 665	3 040	4 964	29 453	8 141	11 443	5 291	48 241
1938-39	8 580	2 046	4 056	20 008	7 802	12 327	5 171	39 613
1939-40	16 692	3 524	4 637	30 132	10 470	14 792	5 585	52 487
1940-41	8 379	2 321	4 873	20 167	10 532	14 757	6 079	43 134
1941-42	13 913	4 490	4 725	30 142	10 294	13 875	6 735	53 016
1942-43	19 399	2 709	6 481	35 423	12 359	16 917	7 917	63 091
1943-44	12 765	2 188	9 159	32 088	13 067	18 277	8 807	63 003
1944-45	6 065	1 931	6 283	23 548	11 963	17 928	8 880	54 810
1945-46	17 490	4 956	7 729	40 434	8 275	14 535	9 959	69 399
1946-47	27 685	7 598	8 283	51 209	17 092	22 602	10 950	90 106
1947-48	50 154	26 228	9 677	99 477	32 606	37 487	12 525	155 615
1948-49	32 450	10 242	10 087	64 138	40 268	47 636	13 440	131 527
1949-50	40 834	14 524	10 616	81 707	56 268	63 058	16 148	167 594
1950-51	45 587	19 803	13 720	97 871	132 494	139 895	15 500	259 627
1951-52	45 288	27 706	20 382	120 507	72 394	86 034	21 145	234 587
1952-53	57 302	42 128	19 161	139 160	97 158	109 154	23 527	279 982
1953-54	43 939	28 804	20 788	115 744	88 866	105 950	24 238	254 537
1954-55	41 591	23 243	17 426	104 914	83 204	101 059	25 037	239 022
1955-56	38 514	25 227	20 335	110 570	79 822	100 882	30 826	250 685
1956-57	44 846	34 022	23 265	129 994	114 578	138 118	29 003	305 365
1957-58	20 970	19 573	24 435	90 089	84 708	111 027	26 384	235 337
1958-59	43 791	39 889	23 984	140 858	67 595	99 135	32 103	280 007
1959-60	16 495	10 999	21 394	71 092	85 382	123 351	29 454	231 751
1960-61	68 001	37 977	24 525	161 437	70 484	94 451	30 306	294 087
1961-62	51 515	22 952	27 051	124 022	85 801	111 850	29 848	273 451
1962-63	56 285	19 152	25 857	128 417	92 514	127 386	31 968	295 043
1963-64	77 660	26 399	29 567	165 634	113 409	150 466	34 267	358 802
1964-65	74 550	30 135	36 200	178 132	94 328	135 916	37 533	360 507
1965-66	59 559	20 234	31 411	144 017	103 635	152 224	39 293	345 015
1966-67	79 612	26 912	36 779	184 090	104 588	169 226	40 303	404 864
1967-68	42 183	12 818	32 423	127 288	79 925	129 504	37 163	306 222
1968-69	112 551	25 657	37 815	221 097	92 932	136 070	39 016	408 842
1969-70	82 332	23 724	43 330	184 284	91 348	148 939	40 834	386 041
1970-71	40 562	34 902	45 991	164 895	67 029	123 858	43 918	347 038
1971-72	76 381	40 295	49 753	213 206	70 093	153 068	47 262	430 704
1972-73	44 588	27 506	54 415	177 768	141 713	261 753	47 808	503 315
1973-74	196 444	68 276	52 347	393 618	183 227	n.a.	n.a.	773 394
1974-75	163 922	119 305	77 719	434 707	125 044	n.a.	n.a.	707 436
1975-76	118 063	105 865	77 401	374 750	119 179	n.a.	n.a.	678 561
1976-77p	74 213	93 340	95 028	338 106	155 293	n.a.	n.a.	716 816

(a) Shares of profits from sale of wool under war-time disposal schemes excluded.

TRADE  
Overseas Exports

Year	Value of Exports				Porportion of Total Exports Classified by Principal Countries of Destination				
	Total	Wheat and Flour	Barley	Wool	Japan	New Zealand	UK	USA	Other Countries
		\$'000					Per cent		
1861.....	1 837	76		1 302		3-42	89-46		7-12
1866.....	2 837	146		1 518		4-62	81-48	2-44	11-46
1871.....	3 630	578		1 948		4-00	89-62	n.a.	6-38
1876.....	5 928	2 146		2 884		1-96	89-58	0-07	8-39
1881.....	6 311	1 846		3 496		0-71	82-03	—	17-26
1886.....	5 877	420		3 508		0-69	86-90	0-04	12-37
1891.....	11 197	2 728		3 776	0-01	0-29	80-82	0-90	17-98
1896.....	8 111	222		3 038	1-38	0-48	56-39	0-28	41-47
1901.....	8 866	2 232		2 208	0-07	0-65	51-62	0-10	47-56
1906.....	13 742	4 780		3 360	—	0-26	51-68	0-24	47-82
1911.....	20 350	7 671	2	4 007	0-04	0-17	45-96	0-13	53-70
1915-16.....	12 272	3 511	19	2 824	—	1-01	42-92	21-15	34-92
1920-21.....	35 339	28 675	1 175	6 035	—	1-11	59-40	1-16	38-33
1925-26.....	38 900	14 825	275	8 865	6-88	1-70	51-94	1-16	38-32
1930-31.....	20 123	6 078	685	3 006	2-38	0-81	54-11	0-79	41-91
1935-36.....	30 762	9 020	707	7 561	6-66	2-05	67-44	1-11	22-74
1940-41.....	26 393	8 617	226	6 656	5-29	3-46	50-46	15-48	25-31
1941-42.....	29 624	3 863	338	11 596	1-01	3-39	32-02	34-14	29-44
1942-43.....	18 847	4 085	122	6 843	—	10-61	45-27	15-12	29-00
1943-44.....	31 170	10 504	410	8 509	—	9-18	40-36	8-61	41-85
1944-45.....	38 334	13 175	115	8 376	—	6-30	42-34	13-18	38-18
1945-46.....	40 307	7 407	718	14 917	—	4-95	25-45	26-43	43-17
1946-47.....	65 023	12 304	2 998	16 095	0-01	5-37	39-47	8-86	46-29
1947-48.....	105 805	24 507	16 030	25 608	—	4-44	39-01	8-51	48-04
1948-49.....	138 866	38 990	11 952	40 619	0-07	2-31	44-37	8-04	45-21
1949-50.....	127 864	23 227	10 564	49 621	2-95	6-38	42-42	7-63	40-62
1950-51.....	215 348	36 852	14 662	109 900	5-90	2-39	39-58	14-41	37-72
1951-52.....	194 501	42 155	18 035	65 806	4-60	7-26	39-36	14-65	34-13
1952-53.....	245 897	36 062	30 975	87 135	8-17	3-32	45-12	12-93	30-46
1953-54.....	220 498	30 518	24 465	78 817	6-35	5-80	41-66	10-57	35-62
1954-55.....	190 158	24 075	15 794	69 195	5-05	6-59	40-78	11-57	36-01
1955-56.....	195 332	26 266	14 069	70 063	6-71	7-47	38-70	10-71	36-41
1956-57.....	245 848	32 558	18 535	98 924	13-62	7-40	31-73	13-09	34-16
1957-58.....	199 764	24 868	17 183	73 082	11-23	7-85	31-50	9-32	40-10
1958-59.....	181 831	23 656	20 404	63 208	13-25	7-86	34-81	8-50	35-58
1959-60.....	181 652	19 028	12 251	74 830	12-91	4-30	32-08	7-91	42-80
1960-61.....	198 557	36 598	19 219	64 328	18-11	5-60	27-55	4-71	44-03
1961-62.....	243 975	47 819	23 422	83 107	14-80	4-14	25-83	8-56	46-67
1962-63.....	212 945	32 603	6 968	83 400	16-45	4-57	25-87	8-69	44-42
1963-64.....	322 159	76 337	13 828	107 398	17-59	4-83	26-63	5-99	44-96
1964-65.....	302 242	53 256	15 247	92 535	17-22	5-06	25-82	7-49	44-41
1965-66.....	296 276	45 864	7 050	94 486	18-38	5-89	22-81	10-37	42-55
1966-67.....	325 170	55 675	13 056	98 013	20-43	4-69	15-46	8-85	50-57
1967-68.....	282 767	31 432	2 321	77 008	21-81	5-05	18-20	11-03	43-91
1968-69.....	300 934	27 421	11 683	84 747	25-52	4-55	16-46	9-78	43-69
1969-70.....	417 030	59 457	16 133	81 797	19-02	5-58	17-03	9-41	48-96
1970-71.....	393 737	83 629	23 670	62 828	18-07	5-66	13-70	6-39	56-18
1971-72.....	394 064	64 599	35 652	68 189	18-64	7-21	13-83	5-84	54-48
1972-73.....	521 720	48 684	17 250	149 956	23-89	6-41	8-84	7-47	53-39
1973-74.....	662 881	103 168	40 790	153 202	19-47	9-18	7-44	4-23	59-68
1974-75.....	764 410	174 405	99 517	93 273	16-35	6-73	5-71	2-61	68-60
1975-76.....	685 029	109 526	90 290	115 560	19-69	5-41	5-65	3-55	65-70
1976-77.....	789 872	84 884	88 072	172 538	21-31	5-33	5-99	4-17	63-20



## STATISTICAL SUMMARY

## TRADE

## Overseas Imports; Retail Sales

Year	Value of Imports		Proportion of Total Imports Classified by Principal Countries of Origin				Value of Retail Sales of Goods	
	Total	Metals, Metal Manufactures, and Machinery (a)	Japan	UK	USA	Other	Total Excluding Motor Vehicles Etc.	Motor Vehicles Etc.
	\$'000		Per cent				\$ million	
1861	2 756	310		80.14	0.32	19.54		
1866	4 193	570		89.69	1.80	8.51		
1871	2 891	342		81.85	1.45	16.70		
1876	6 428	1 084		81.30	1.44	17.26		
1881	7 133	1 022		79.06	3.80	17.14		
1886	5 003	770	0.01	78.90	6.82	14.27		
1891	8 063	1 644	0.02	71.36	7.91	20.71		
1896	6 475	1 198	0.18	68.59	7.82	23.41		
1901	7 854	1 432	0.38	56.91	14.17	28.54		
1906	7 965	2 104	0.64	63.10	10.17	26.09		
1911	12 492	4 132	1.31	58.60	12.81	27.28		
1915-16	10 304	2 816	3.12	47.68	19.81	29.39		
1920-21	24 764	6 558	1.55	42.07	21.25	35.13		
1925-26	28 160	10 602	1.13	43.30	27.84	27.73		
1930-31	7 833	1 802	1.14	36.96	16.66	45.24		
1935-36	10 839	3 616	2.24	38.65	21.16	37.95		
1940-41	10 924	3 158	1.56	38.09	12.01	48.34		
1941-42	14 924	5 164	0.10	28.11	12.36	59.43		
1942-43	11 718	3 580	—	20.56	14.44	65.00		
1943-44	9 562	2 128	—	24.97	33.53	41.50		
1944-45	9 313	1 388	—	24.49	19.91	55.60		
1945-46	17 556	3 622	—	62.28	10.13	27.59		
1946-47	23 875	6 788	0.03	35.25	13.79	50.93		
1947-48	45 908	12 740	—	37.96	15.45	46.59		
1948-49	60 914	21 678	0.12	49.33	9.02	41.53		
1949-50	91 509	44 334	1.77	52.15	8.81	37.27		
1950-51	112 002	50 446	1.98	48.31	8.42	41.29		
1951-52	186 062	80 450	5.16	39.99	9.37	45.48		
1952-53	86 549	41 456	1.14	43.53	11.71	43.62	271.7	84.3
1953-54	102 945	47 142	0.46	50.63	8.93	39.98	294.4	97.6
1954-55	129 607	63 144	1.28	49.18	13.28	36.26	324.4	113.4
1955-56	125 504	64 656	3.18	49.17	11.70	35.95	347.8	123.6
1956-57	90 813	40 536	1.39	44.01	12.26	42.34	362.3	124.7
1957-58	94 205	40 792	1.85	46.37	11.91	39.87	367.2	125.4
1958-59	90 693	40 534	2.56	42.08	11.50	43.86	387.2	138.0
1959-60	119 493	57 962	2.69	43.89	12.15	41.27	436.6	160.2
1960-61	142 764	72 570	5.37	32.66	17.61	44.36	448.9	156.1
1961-62	103 386	46 774	3.28	31.95	21.87	42.90	451.6	143.1
1962-63	139 826	71 820	4.08	31.83	22.92	41.17	479.9	180.5
1963-64	179 651	94 302	4.72	24.75	30.63	39.90	525.3	212.5
1964-65	204 856	108 243	8.01	23.72	29.11	39.16	574.5	238.0
1965-66	198 156	103 032	6.84	23.32	27.25	42.59	602.0	220.4
1966-67	196 771	97 861	7.69	21.64	27.72	42.95	627.1	214.7
1967-68	215 619	113 215	7.16	17.29	32.71	42.84	663.6	242.0
1968-69	231 956	134 222	11.19	19.82	27.35	41.64	706.9	261.1
1969-70	201 223	98 204	10.77	21.49	21.50	46.23	762.3	285.7
1970-71	198 358	98 358	14.44	25.10	17.32	43.14	818.8	297.6
1971-72	189 748	83 083	15.08	22.83	14.48	47.61	890.9	322.5
1972-73	199 978	88 271	20.48	17.49	15.08	46.95	1 037.1	n.a.
1973-74	313 915	142 187	22.57	12.03	16.91	48.49	1 237.3	457.9
1974-75	482 077	216 355	19.17	14.20	13.10	53.53	1 503.3	n.a.
1975-76	501 476	203 407	18.57	11.14	14.84	55.45	1 775.1	n.a.
1976-77	629 309	259 695	22.23	8.52	13.38	55.87	2 023.0	n.a.

(a) Includes motor vehicles and other transport equipment.

TRANSPORT AND COMMUNICATION

Public Transport

Year	Railways			Buses and Trams (a)		Shipping (Entering SA) (b)
	Passengers Carried	Goods Carried	Revenue	Passengers Carried	Revenue	
	'000	'000 tonnes	\$'000	'000	\$'000	'000 net tonnes
1841						18
1846						25
1851						75
1856	248	32	44			114
1861	310	145	185			103
1866	425	171	236			169
1871	394	228	235			187
1876	1 400	387	402			347
1880-81	2 902	683	837			641
1885-86	3 962	779	1 098			771
1890-91	5 296	1 427	2 448			1 288
1895-96	5 436	1 057	1 973			1 661
1900-01	8 864	1 628	2 473			1 967
1905-06	10 715	1 732	2 700			2 785
1910-11	16 620	2 731	4 030	34 013	480	3 625
1915-16	20 513	2 397	3 931	43 372	649	2 566
1920-21	23 788	2 682	5 884	55 324	1 111	2 887
1925-26	25 752	3 563	8 524	66 207	1 322	4 526
1930-31	15 453	2 175	5 201	52 756	1 444	4 166
1935-36	17 431	2 482	5 781	50 625	1 347	5 318
1940-41	20 360	2 770	7 060	56 518	1 537	3 047
1945-46	23 119	2 997	9 794	90 239	2 469	1 733
1950-51	17 178	3 519	(c) 14 715	78 141	3 238	5 283
1951-52	18 269	4 966	19 022	75 436	3 684	5 529
1952-53	17 565	4 172	24 976	66 571	(d) 4 232	5 900
1953-54	17 605	4 457	25 848	66 972	4 145	6 108
1954-55	16 849	4 497	26 522	66 446	4 267	6 123
1955-56	16 434	4 436	26 662	63 515	4 668	6 282
1956-57	17 406	4 518	28 132	62 190	4 578	6 360
1957-58	17 564	4 166	27 033	60 083	4 988	6 569
1958-59	16 805	4 227	26 179	59 613	5 056	6 744
1959-60	17 038	4 059	25 652	58 168	5 641	6 745
1960-61	15 574	4 537	27 883	58 912	5 515	7 613
1961-62	15 176	4 638	27 984	57 950	5 430	7 646
1962-63	14 922	4 530	27 826	58 039	5 436	7 886
1963-64	15 227	5 213	29 673	58 571	5 473	9 486
1964-65	15 196	5 131	29 960	56 434	5 899	9 697
1965-66	15 511	4 823	29 137	53 112	6 049	9 517
1966-67	15 432	4 909	30 417	49 735	6 270	10 220
1967-68	15 242	4 401	28 244	47 813	6 225	10 028
1968-69	14 423	5 037	30 522	45 393	6 472	10 345
1969-70	13 990	5 922	33 566	43 345	6 696	12 213
1970-71	13 946	6 025	34 635	41 259	6 881	11 303
1971-72	13 433	5 948	35 603	40 842	6 978	10 533
1972-73	13 320	5 820	35 332	41 680	7 304	9 957
1973-74	13 597	6 655	39 827	(e) 47 533	(e) 9 958	9 639
1974-75	12 697	6 783	48 315	58 298	13 427	9 743
1975-76 (f)	12 672	6 184	50 099	58 336	14 454	9 386
1976-77 (f)	12 866	6 442	54 685	58 129	16 782	8 043

(a) Buses and trams operated by Bus and Tram Division of the State Transport Authority. Years ended 31 July from 1912 to 1939, 31 January from 1940 to 1952, and 30 June from 1953.

(b) Years ended 31 December to 1913; thereafter year ended 30 June.

(c) Excludes Treasury grant from 1949-50.

(d) Excludes Government grant from 1952-53.

(e) From March 1974 includes details of licensed private services taken over by the Bus and Tram Division.

(f) Includes country railways operated on behalf of the Commonwealth.

## TRANSPORT AND COMMUNICATION

Year	Motor Vehicles on Register			Drivers and Riders Licences in Force	Telephone Services in Operation (a)	Radio Licences in Force (b)	Post Office Revenue			
	Cars and Station Wagons	Utilities, Vans, Trucks, Buses	Total (incl. Cycles, Scooters)				Postal, Etc. (c)	Telegraph (c)	Telephone	
	'000			Number		'000				
1851.....								14		
1856.....								18		
1861.....								33	15	
1866.....								56	24	
1871.....								58	22	
1876.....								114	64	
1881.....								166	123	
1886.....								214	160	
1891.....								227	201	
1896.....								250	242	
1901.....					1 831			282	263	
1906.....					2 510			342	182	61
1911.....					6 086			490	233	93
1916.....					10 184			484	277	212
1921.....	13.2		21.4		15 984			762	420	468
1926.....	42.5		62.5	79 659	33 547	12 105		867	402	903
1931.....	(d) 45.1	(d) 12.1	(d) 67.3	106 053	39 552	32 075		879	282	1 168
1936.....	53.7	19.4	84.3	92 227	39 911	93 881		1 017	327	1 197
1941.....	54.5	24.4	86.2	122 280	47 962	136 457		1 252	458	1 522
1946.....	64.4	31.4	107.2	137 979	53 126	164 497		1 921	815	2 170
1947.....	67.4	34.7	115.2	149 304	56 449	180 371		1 989	875	2 345
1948.....	75.7	36.4	127.5	159 814	60 249	196 336		2 190	946	2 507
1949.....	84.3	40.7	143.5	172 063	64 008	211 436		2 345	848	2 761
1950.....	97.5	46.0	163.9	192 469	69 907	226 723		2 546	1 169	3 536
1951.....	108.9	51.2	183.6	215 157	74 457	243 019		2 938	1 550	4 271
1952.....	120.5	55.9	200.4	232 119	80 919 (e)	207 527		3 872	1 818	5 588
1953.....	129.7	61.2	214.3	252 216	86 977	210 808		4 086	1 191	6 070
1954.....	139.7	64.6	226.9	265 727	93 104	218 745		4 311	1 112	6 728
1955.....	150.5	70.2	244.4	281 091	100 171	221 118		4 670	1 028	7 266
1956.....	161.4	73.2	257.5	299 158	107 649	228 625		5 033	1 075	8 067
1957.....	171.9	75.7	269.3	315 044	114 390	234 120		5 579	1 358	8 993
1958.....	184.3	77.8	283.0	328 833	122 311	238 916		5 877	1 385	9 950
1959.....	200.3	81.0	301.5	340 973	131 060	247 468		6 247	1 421	10 524
1960.....	214.9	84.1	318.3	369 584	138 019	249 148		7 359	1 487	12 793
1961.....	224.5	82.5	325.2	393 869	144 502	249 475		7 729	1 643	14 544
1962.....	238.9	82.5	338.1	397 803	152 785	249 673		7 761	1 434	15 604
1963.....	258.8	83.9	358.2	414 656	162 012	256 741		8 322	1 592	16 508
1964.....	280.1	86.3	380.5	427 717	173 314	266 027		8 709	1 852	19 181
1965.....	298.1	86.4	397.4	447 985	182 249 (f)	269 040		9 312	2 187	23 038
1966.....	314.0	87.3	413.5	464 778	192 922	281 747		9 759	2 398	24 757
1967.....	327.7	87.1	427.6	481 496	203 191	278 069		10 117	2 521	26 990
1968.....	342.9	87.6	443.9	491 765	212 842	290 051		11 378	2 688	30 124
1969.....	364.7	89.6	468.2	513 687	224 174	297 877 (g)	13 211	(g) 1 606	(g) 34 523	
1970.....	384.0	90.7	490.1	535 184	239 452	302 519	13 885	1 918	38 465	
1971.....	400.8	91.5	510.3	550 745	251 330	310 485	15 847	1 988	43 333	
1972.....	420.4	92.8	536.0	570 562	261 608	315 612	18 309	2 342	50 820	
1973.....	445.4	97.9	572.4	592 481	278 687	332 411	19 227	2 569	58 306	
1974.....	468.6	100.6	601.3	612 693	298 300	339 516	21 298	2 963	68 208	
1975.....	491.5	104.0	628.9	637 248	311 804	(h)	25 128	3 581	83 406	
1976.....	513.0	112.7	657.9	658 671	334 948	(h)	n.a.	n.a.	n.a.	
1977.....	528.8	116.9	677.5	690 663	361 334	(h)	n.a.	n.a.	n.a.	

(a) At 30 June from 1916; at 31 December in earlier years. (b) At 31 December from 1931 to 1943; otherwise at 30 June in years shown. (c) Years ended 30 June from 1886; earlier years ended 31 December. Telegraph includes telephone to 1901 and radio to 1948, from which time radio etc., licence fees have been excluded from Post Office revenue. (d) Vehicles in actual use on roads from 1930. (e) All receivers at the one address covered by one licence from 1952. (f) Combined radio and television licences included since 1 April 1965. (g) From 1968-69 content not comparable with previous years. (h) Abolished from 17 September 1974.

PUBLIC FINANCE

Year	State Government					Local Government Revenue			
	Total Revenue	Expenditure		Public Debt		State Taxation (a)	From Rates	Government Grants	Total
		From Revenue	From Loan (Net)	Total	Per Head				
	\$'000	\$'000	\$'000	\$'000	\$	\$'000	\$'000	\$'000	\$'000
1840-41	51	180							
1845-46	95	77							
1850-51	445	367				202			
1855-56	960	1 160		590	5-50	326		54	114
1860-61	1 117	966		1 733	13-30	282	46	40	114
1865-66	1 900	2 130		1 551	9-20	478	60	60	162
1870-71	1 556	1 519		4 335	23-00	498	80	74	194
1875-76	2 640	2 647		7 674	34-20	920	118	80	286
1880-81	4 344	4 108		22 394	78-30	1 168	188	136	488
1885-86	4 558	4 767	2 800	36 680	118-60	1 603	208	108	502
1890-91	5 464	5 207	968	43 315	135-80	1 655	276	254	702
1895-96	5 043	5 019	886	48 433	137-60	1 600	264	194	652
1900-01	5 648	5 693	845	52 129	146-40	1 203	302	222	738
1905-06	5 612	5 437	900	60 165	165-80	735	348	198	740
1910-11	8 363	7 929	3 752	(b)56 065	136-50	1 092	481	336	1 004
1915-16	8 714	9 483	4 371	79 049	179-40	1 403	652	302	1 150
1920-21	14 303	15 087	9 351	104 725	210-70	3 244	986	580	1 936
1925-26	20 948	20 922	12 860	160 521	290-10	5 428	1 640	942	3 441
1930-31	21 452	25 079	6 581	199 055	345-70	6 800	1 672	397	2 612
1935-36	22 819	22 521	2 502	211 397	359-70	6 409	1 665	509	2 824
1940-41	25 849	26 015	2 548	219 599	365-30	8 683	1 851	577	3 170
1945-46	32 687	32 687	3 419	221 498	348-80	(c)4 036	2 040	451	3 474
1946-47	34 385	34 506	4 423	228 260	353-20	4 286	2 271	697	4 061
1947-48	37 686	38 312	4 963	237 704	359-50	4 573	2 610	923	4 740
1948-49	43 690	44 259	9 281	249 440	367-20	5 740	2 967	1 106	5 513
1949-50	58 721	59 100	17 339	266 349	375-40	6 591	3 248	1 496	6 380
1950-51	67 344	66 885	33 871	296 776	405-20	8 104	3 830	1 963	7 579
1951-52	85 276	85 098	52 875	346 872	459-40	9 586	4 686	2 578	9 548
1952-53	98 203	98 153	40 885	389 706	502-30	9 983	5 761	2 306	10 800
1953-54	104 751	101 132	39 879	429 446	538-80	13 073	6 524	3 867	13 416
1954-55	103 768	108 236	42 912	472 925	577-10	15 092	7 041	3 836	14 213
1955-56	118 805	121 665	42 666	512 179	603-60	16 150	8 162	4 381	16 310
1956-57	131 522	131 619	43 793	552 880	633-20	18 620	9 563	4 733	18 436
1957-58	141 285	142 083	37 153	593 628	662-00	19 541	10 333	4 848	19 721
1958-59	145 360	147 414	41 442	635 404	690-00	20 435	11 060	4 948	21 080
1959-60	160 555	161 177	43 432	678 210	717-50	22 297	11 971	5 478	22 535
1960-61	172 559	170 182	44 739	722 038	743-20	23 425	13 076	(d)3 524	25 034
1961-62	186 405	185 392	43 773	763 399	773-10	25 150	14 887	2 984	27 969
1962-63	195 168	194 589	42 047	807 044	798-50	26 940	15 943	3 215	29 094
1963-64	211 006	207 755	44 218	853 553	822-30	29 825	16 968	4 317	33 725
1964-65	222 181	224 803	53 100	902 823	845-70	34 901	18 625	3 804	33 952
1965-66	236 816	243 650	55 089	955 128	872-30	37 636	20 412	4 106	38 020
1966-67	258 823	258 717	57 016	1 013 060	913-00	44 708	22 875	4 244	42 319
1967-68	274 544	277 404	55 382	1 074 959	958-30	48 255	24 369	4 493	42 813
1968-69	298 355	297 895	61 390	1 143 954	1 004-10	53 351	26 276	4 505	45 263
1969-70	338 498	335 578	67 469	1 210 489	1 045-30	59 840	27 596	4 988	48 556
1970-71	386 859	386 838	71 491	1 256 337	1 070-40	62 745	29 118	4 758	49 589
1971-72	455 245	456 312	111 740	1 333 720	1 124-10	97 476	32 224	7 653	54 886
1972-73	520 866	524 777	117 411	1 415 129	1 161-94	120 474	35 874	15 025	65 917
1973-74	641 967	645 368	107 566	1 481 337	1 198-30	156 903	42 202	10 508	67 682
1974-75	828 985	820 601	123 854	1 555 333	1 242-18	219 190	53 804	19 118	96 000
1975-76	1 036 985	1 034 698	160 602	1 394 702	1 105-50	272 760	65 670	33 553	99 221
1976-77	1 174 025	1 183 180	175 552	1 495 737	1 171-10	314 280	*	34 881	*

(a) Excludes all taxation paid to Special Funds. From 1966-67 the coverage of this item does not completely coincide with SA Treasury classifications. (b) Debt of Northern Territory and Port Augusta-Oodnadatta railway transferred to Commonwealth Government. (c) Uniform taxation in force from 1941-42. (d) Excludes reimbursement for work done on behalf of Highways Department from 1961.

## PRIVATE FINANCE

Year	Banking		Life Insurance			General Insurance Revenue (b)	Co-operative Societies (b)	Friendly Societies	Building Societies (b)
	Trading Banks		Savings Bank Deposits at 30 June	New Policies Issued Sum Assured	Policies in Existence Sum Assured				
	Advances (a)	Deposits (a)							
			\$'000						No. of Members
1846.....		183							
1851.....		426							
1856.....		1 419							
1861.....	2 864	1 480							
1866.....	6 240	2 803							
1871.....	5 715	3 043							
1876.....	9 449	6 632							
1881.....	13 483	9 885							
1886.....	19 226	9 924							
1891.....	16 297	15 550							
1896.....	9 470	15 343							
1901.....	8 546	13 437							
1906.....	10 612	15 598							
1911.....	16 970	22 257					10 248		9 572
1916.....	20 325	27 264					13 270	65 540	8 962
1921.....	27 296	44 199	32 635	6 000	40 272	1 305	28 762	70 155	10 621
1926.....	31 672	51 574	43 558	9 341	60 244	2 045	41 539	77 791	17 011
1931.....	44 119	44 956	42 844	6 266	65 016	1 627	45 791	(c)	14 081
1936.....	43 760	52 399	50 617	10 791	75 984	1 859	45 592	71 658	9 257
1941.....	39 547	64 182	55 019	11 416	101 825	2 643	n.a.	76 357	n.a.
1946.....	31 560	93 397	131 729	22 805	147 230	2 705	70 620	80 419	18 665
1947.....	39 674	99 653	135 800	24 935	165 025	3 372	80 150	79 827	19 774
1948.....	39 585	119 859	147 226	26 555	183 753	4 371	84 470	78 246	20 815
1949.....	41 387	142 558	162 351	29 003	204 289	5 755	87 733	76 761	22 017
1950.....	50 412	159 136	175 390	33 076	227 616	7 312	92 066	75 168	22 646
1951.....	62 109	206 743	195 698	44 899	261 931	9 298	92 424	71 591	22 782
1952.....	89 163	214 630	207 452	48 475	298 494	12 370	96 134	67 563	23 016
1953.....	79 574	247 260	227 750	51 671	335 457	14 593	100 323	63 922	23 801
1954.....	95 968	250 802	245 898	59 540	377 093	16 165	107 069	61 345	23 814
1955.....	106 740	250 795	263 384	70 458	426 881	18 321	109 667	59 149	24 397
1956.....	108 515	241 044	271 512	75 301	477 554	20 590	114 018	57 216	24 266
1957.....	105 618	266 897	284 802	89 470	539 120	23 835	109 636	55 499	(d)
1958.....	125 971	262 700	297 716	94 137	599 723	24 656	(d)	54 181	24 321
1959.....	124 924	272 599	314 304	111 440	676 406	26 223	112 844	53 114	24 665
1960.....	149 172	265 498	331 996	131 951	756 581	27 975	116 645	52 239	24 847
1961.....	147 348	269 848	333 485	143 628	841 563	32 363	111 031	51 551	24 835
1962.....	152 545	277 431	361 980	157 636	955 426	33 740	116 405	51 198	21 854
1963.....	175 753	285 418	416 155	165 183	1 056 390	37 499	108 283	50 765	21 260
1964.....	193 251	311 208	475 803	197 790	1 161 986	41 695	113 224	50 946	22 348
1965.....	223 573	347 405	519 268	215 946	1 294 450	45 433	115 828	51 258	22 746
1966.....	258 447	362 905	558 857	239 250	1 439 083	50 121	(e)116 615	51 109	23 611
1967.....	284 271	372 985	605 167	279 996	1 618 112	56 114	125 638	51 001	23 722
1968.....	321 892	390 110	643 690	301 602	1 807 040	59 981	125 385	51 070	22 458
1969.....	354 782	405 666	691 778	347 048	2 031 479	65 354	126 529	50 880	26 373
1970.....	374 575	424 017	733 100	437 699	2 313 244	70 640	123 263	50 796	33 863
1971.....	396 183	431 863	787 901	525 879	2 667 651	76 020	124 021	50 488	41 670
1972.....	419 682	469 983	874 138	586 663	3 053 169	89 173	123 755	50 077	49 804
1973.....	470 070	563 670	1 060 425	727 998	3 565 754	98 678	121 893	50 664	66 853
1974.....	585 505	749 182	1 174 813	908 775	4 175 174	127 473	122 562	50 779	99 043
1975.....	688 337	901 858	1 394 585	1 095 897	4 927 762	(f)182 857	122 701	49 888	131 049
1976.....	814 384	1 175 627	1 617 336	1 200 765	5 666 521	225 595	124 506	48 057	n.a.
1977.....	1 026 216	1 353 503	1 780 841	*	*	*	125 148	*	n.a.

(a) Until 1961, average of balances at close of business on Wednesdays during the June quarter of the year stated. From 1962, average of balances at close of business on Wednesdays during the year ended 30 June of the year stated. (b) Year ended 30 June. (c) Membership at 30 June from 1932; previously 31 December. (d) Balance dates of societies do not coincide; from this year figures are aggregates of members at balance dates within the year ended 30 June. (e) Figures from 1966 have been revised because of a redefinition of Co-operative Societies, and details for years before 1966 are not comparable. (f) From 1974-75 premium income only; details of interest, dividends and rent no longer available.

## APPENDIX B

# PRINCIPAL EVENTS

### CHRONOLOGICAL LIST OF IMPORTANT EVENTS IN SOUTH AUSTRALIA SINCE 1836

- 1836**—First migrants landed at Kangaroo Island on 20 July. First South Australian newspaper published in London. Colony's first school opened on Kangaroo Island. The Surveyor-General, Col. Light arrived in November and commenced survey of Adelaide. Governor Hindmarsh arrived in HMS *Buffalo* and proclaimed South Australia a Province on 28 December.
- 1837**—Col. Light completed survey of Adelaide and designed the city's present layout. First Adelaide land allotments made. First newspaper published in South Australia. South Australian Supreme Court established. First hospital opened in North Terrace, Adelaide.
- 1838**—First overland cattle and sheep drives from New South Wales. First export from South Australia, a small clip of wool, dispatched. First German settlers under the leadership of Pastor Kavel arrived in South Australia. Formation of first police force.
- 1839**—Col. Light died at Thebarton and buried in Light Square. First road in South Australia built between Adelaide and Port Adelaide. Adelaide Chamber of Commerce founded.
- 1840**—Eyre started overland journey to Western Australia. The Municipality of Adelaide incorporated, the first in Australia. McLaren Wharf, Port Adelaide, opened by Governor Gawler.

- 1841—First South Australian mine (silver-lead) opened near Glen Osmond. Assisted migration suspended because of depression. Following financial crisis Governor Gawler recalled and succeeded by Governor Grey. Eyre arrived at Albany in Western Australia.
- 1842—Registration of births, deaths and marriages commenced. Portions of South Australia divided for first time into counties. Copper discovered at Kapunda. Legislative Council constituted. The South Australian Board of Colonisation Commissioners abolished by the British Government.
- 1843—Stripper invented by Ridley. A flour mill built at Hindmarsh.
- 1844—First Colonial Census held, and showed a population of 17 366.
- 1845—Copper discovered at Burra. Sturt explored the north-eastern part of the State. Gold found in South Australia, near Montacute. Assisted migration resumed.
- 1846—First pastoral leases granted.
- 1847—First winery in the Barossa Valley commenced operation. St Peters College established.
- 1848—Opening of The Savings Bank of South Australia. First ferry across the River Murray commenced operations at Wellington.
- 1849—The Central Board of Main Roads established.
- 1850—An Act granting representative government to South Australia passed by the British Parliament.
- 1851—The Central Board of Education established.
- 1852—First overland gold escort arrived in Adelaide.
- 1853—W. R. Randell's *Mary Ann* and Francis Cadell's *Lady Augusta* initiated the navigation of the Murray.
- 1854—State's first railway (horse-drawn) built from Goolwa to Port Elliot.
- 1855—First South Australian postage stamps issued.
- 1856—First telegraph line opened from Adelaide to Port Adelaide. The new Constitution Act embodying the principle of responsible government proclaimed; it provided for Parliament to consist of two Houses; a Legislative Council and a House of Assembly. First steam railway from Adelaide to Port Adelaide constructed. Population of the State passed 100 000.
- 1857—Railway to Smithfield and Gawler opened.
- 1858—The Real Property Act, which embodied the principles of conveyancing formulated by Torrens, came into operation. First telegraph line to Melbourne opened.
- 1859—A jetty over 350 metres in length constructed at Glenelg. Copper discovered at Wallaroo.
- 1860—Water supplied to the City of Adelaide by means of a main connected with the reservoir at Thorndon Park.

- 1861—Copper discovered at Moonta. Water laid on to houses in Adelaide. John McDouall Stuart set out to cross the continent from south to north. The South Australian boundary shifted west to coincide with the boundary of Western Australia.
- 1862—Stuart reached Chambers Bay on the coast of the Northern Territory.
- 1863—Administration of the Northern Territory taken over by South Australia. Shops of Adelaide lit for the first time with gas.
- 1865—Annual leases of pastoral lands sold by auction for first time. The Bank of Adelaide founded.
- 1866—Camels for the purpose of exploration introduced by Sir Thomas Elder. The Adelaide Town Hall opened.
- 1867—Visit of Alfred, Duke of Edinburgh, who laid the foundation stone of the General Post Office.
- 1869—Foundation stone of St Peters Cathedral laid. Prince Alfred College opened. Adelaide Chamber of Manufacturers founded.
- 1870—Construction of the transcontinental telegraph from Port Darwin commenced. John Forrest and party made first of two journeys of exploration from Perth.
- 1872—Transcontinental telegraph from Port Darwin completed and first direct telegram from London received.
- 1873—Eight-hour working day adopted. First Health Act, establishing a Central Board of Health, passed.
- 1874—The University of Adelaide founded.
- 1875—The State Education Act passed. First Forestry Board established.
- 1876—Telegraph communication with New Zealand established. The Smith brothers invented the 'stump jump' plough. South Australia became first State to give legal recognition to trade unions.
- 1877—Overland telegraph line from Port Augusta to Eucla completed and first telegram from Perth transmitted. The Adelaide Bridge completed.
- 1878—Provisions of the Education Act relating to compulsory school attendance brought into force in the Adelaide school district. First tramway (horse-drawn) in any Australian city commenced carrying passengers to Kensington and North Adelaide. The State's population passed 250 000.
- 1879—Foundation stone of the Adelaide University laid. First bridge across River Murray in South Australia opened at Murray Bridge.
- 1881—First reclamation of swamp areas of River Murray. Art Gallery opened by His Royal Highness Prince Albert Victor. Construction of the weir which created the Torrens Lake completed.
- 1882—Fire Brigades Board established.
- 1883—The Telephone Exchange commenced operations. Roseworthy Agricultural College opened to students.



- 1884—Largs Bay Fort opened. Adelaide Trades and Labor Council, the first delegates society, inaugurated.
- 1885—Broken Hill silver mines opened. Column erected on Mount Lofty summit as a prominent landmark for mariners.
- 1887—Act authorising payment to members of Parliament passed. Renmark Irrigation Colony established. First express trains ran between Adelaide and Melbourne. The Jubilee Exhibition opened. Stock Exchange of Adelaide formed by amalgamation of Adelaide Stock Exchange and Stock Exchange of South Australia.
- 1888—Totalisator legally authorised by an Act of Parliament.
- 1889—The School of Mines and Industries opened. Smelting of silver-lead ore from Broken Hill commenced at Port Pirie.
- 1890—First South Australian built locomotive completed.
- 1892—Education made free to the compulsory age, and standard.
- 1894—Act granting the franchise to women passed. Inauguration of industrial arbitration by the establishment of Boards of Conciliation.
- 1896—State Bank of South Australia opened. Women voted for the first time at the general election. Happy Valley Reservoir opened. One of Adelaide's most severe droughts commenced, and continued for several years.
- 1899—Second referendum concerning the establishment of Federation held. In South Australia, 65 990 electors voted for Federation and 17 053 against. First military contingent left South Australia for the Boer War.
- 1900—Adelaide lit for the first time with electric light. The Commonwealth of Australia Constitution Act received Royal Assent and a Proclamation was issued uniting the States as the Commonwealth of Australia as from 1 January 1901. Conservatorium of Music opened. First Workmen's Compensation Act passed.
- 1901—Early closing of shops introduced. First Commonwealth Parliament elected. The Duke and Duchess of York arrived in the *Ophir*. The *Customs Act* came into force. The Electric Light Works was opened. Iron Knob connected to Whyalla by railway.
- 1902—Flinders column, at Mount Lofty, dedicated to the public by the Governor, Lord Tennyson.
- 1905—First kindergarten in South Australia opened.
- 1906—Military cadet system inaugurated.
- 1907—High schools were established in a number of country centres. Municipal Tramways Trust incorporated. First Federal basic wage judgement—the 'Harvester' award—made.
- 1908—Penny savings bank accounts for children established. The Outer Harbor opened. Adelaide High School established.
- 1909—Adelaide electric tramways commenced operations. Payment of age pensions by the Commonwealth Government commenced.

- 1910—Payment of invalid pensions by the Commonwealth Government commenced. First recorded monoplane flight in Australia made by F. C. Custance at Bolivar.
- 1911—'Penny Postage' to all parts of the British Empire introduced. The Federal Defence Act came into operation. Administration of the Northern Territory transferred to the Commonwealth Government.
- 1913—Medical inspection of school children introduced. Commonwealth Bank formally opened. Metropolitan Abattoirs established.
- 1914—First South Australian military expeditionary force embarked at Outer Harbor. South Australia experienced its most severe drought.
- 1915—Prices of commodities fixed by a commission. A referendum approved the closing of liquor bars at 6 p.m. Women appointed as justices of the peace for the first time. First shipment of iron ore made from Whyalla to steelworks in Newcastle. First women police appointed. Opal discovered at Coober Pedy.
- 1916—Referendum proposing compulsory military service abroad defeated. First Public Service Commissioner appointed. First State living wage with general application declared.
- 1917—German private schools in South Australia were closed. East-West trans-continental railway completed and the first train ran to Perth. Mr R. G. Carey, in a Bleriot 60, made the State's first airmail flight from Enfield to Gawler.
- 1919—Captain Butler flew from Adelaide across Gulf St Vincent carrying air mail to Minlaton. Soldier Settlement Bill passed by the South Australian Parliament. First Lord Mayor of Adelaide elected.
- 1920—Sir Ross Smith and party arrived at Adelaide by non-stop flight from Melbourne. Peace Exhibition held at the Jubilee Exhibition buildings. The Prince of Wales visited South Australia.
- 1921—The State's population passed 500 000.
- 1922—First lock on the River Murray completed and opened at Blanchetown.
- 1923—The Government approved an extensive re-organisation of the railway system.
- 1924—Public Debt Commissioners were appointed. Air mail between Adelaide and Sydney inaugurated. Waite Agricultural Research Institute established. First radio stations commenced broadcasting.
- 1925—Showgrounds at Wayville opened. The first Federal election at which voting was compulsory took place. Foundation stone of Adelaide Teachers Training College laid.
- 1926—The South Australian barley exhibit won all prizes at the Brewers Exhibition in London. The State Bank opened for general banking business. Construction of a narrow gauge railway from Oodnadatta to Alice Springs approved. State petrol tax declared invalid following a Commonwealth Government writ against the State.
- 1927—Extension of the North-South railway commenced. The first train arrived at Renmark following the opening of the Paringa Bridge. The Duke and Duchess of York arrived in South Australia.

- 1929**—The first air mail left Adelaide for Perth. The first train to Alice Springs left Adelaide. Compulsory military training abolished and replaced by a voluntary system. Electric tram service to Glenelg commenced.
- 1930**—All officers of the South Australian Public Service over the age of sixty-five years were compulsorily retired. The South Australian basic wage was reduced by 18c to \$1.25 a day. Transport Control Board, State Finance Committee and Unemployed Relief Council established.
- 1931**—City Bridge opened. Financial Plan formulated at the Premiers' Conference adopted and Financial Emergency Act passed. Federal basic wage reduced by 10 per cent for twelve months but was to be adjusted in accordance with a retail price index. State basic wage reduced from \$1.25 to \$1.05 a day. Basic wage for females reduced, first from \$3.95 to \$3.50 and later to \$3.15 a week.
- 1932**—Boundaries and names of a number of local government areas changed and others abolished following the report of a commission.
- 1933**—The Farmers Assistance Board, the Betting Control Board and the Metropolitan and Export Abattoirs Board established.
- 1934**—Water restrictions in force from May until the following January.
- 1935**—The Nomenclature Act of 1935 restored the former German names to a number of towns, the names of which had been changed in 1917.
- 1936**—Centenary year of the State's foundation celebrated. Contract signed for the completion of Parliament House and the foundation stone laid by the Governor, Sir Winston Dugan.
- 1937**—South Australian Housing Trust established. New Federal basic wage of \$7.40 per week, which incorporated a 'prosperity' loading, declared. First trolley bus service inaugurated. Mount Bold Reservoir with a capacity of 30 000 megalitres filled, almost doubling Adelaide's water storage. Schools closed and other precautions taken as a result of an epidemic of poliomyelitis.
- 1938**—First South Australian Housing Trust dwelling completed.
- 1939**—State's worst heat wave and disastrous bush fires experienced during the first two months of the year. Record high temperature of 47.6° C recorded in Adelaide. New Parliament House opened by His Excellency the Governor-General, Lord Gowrie.
- 1940**—Goolwa Barrage completed at a cost of \$1 400 000. Birkenhead Bridge opened. A rapid development of secondary industry took place as munition annexes were added to existing factories and new factories were opened.
- 1941**—Scriptural instruction in State schools commenced. First naval vessel built in South Australia launched. First blast furnace to be built at Whyalla went into operation. Child endowment payments inaugurated. Payroll tax commenced.
- 1942**—Daylight saving of one hour introduced for almost three months. Wages and prices pegged and profits and interest rates restricted. Racing and bookmaking prohibited. Rationing of tea and clothing commenced. Widows pension instituted. The uniform Income Tax Act came into force. First coal obtained from Leigh Creek.

- 1943—Price Stabilisation legislation came into force. Butter rationing commenced. Wage and price subsidies were introduced and the prices of tea, potatoes and other commodities were reduced in order to bring price indexes and wages to a lower level. Racing resumed but betting shops remained closed.
- 1944—Rationing of meat began. Morgan-Whyalla pipeline officially opened. The first State election with compulsory voting took place. Severe water restrictions imposed. First output of Leigh Creek coal for electricity generation.
- 1945—Unemployment and sickness benefits came into operation. Restrictions imposed on the use of gas and electricity for domestic and industrial purposes.
- 1946—Commonwealth Government munition factories leased to various private firms. Payment of government subsidies to hospitals commenced. Restrictions on the use of gas and electricity again imposed. The Electricity Trust of South Australia took over the property and functions of the Adelaide Electric Supply Co.
- 1947—Fruit fly detected in metropolitan orchards and efforts made to eliminate it by stripping gardens and orchards. Sugar rationing abolished. Conciliation commissioners appointed following an amendment to the Federal Conciliation and Arbitration Act. Severe restrictions imposed on imports from North America.
- 1948—Restrictions on the use of gas and electricity imposed on a number of occasions during the year because of the shortage of coal. Preparation of the Woomera rocket range commenced. Forty-hour working week introduced by Arbitration Court award. Serious bush fires occurred in January. Severe storms during April resulted in widespread damage including the destruction of the Glenelg jetty. The free medicine scheme came into operation. Clothing and meat rationing abolished. Full scale production of the 'Holden' car commenced.
- 1949—Petrol rationing by the Commonwealth Government declared illegal but resumed later in the year under a State Act. An extended national coal strike occurred. Water pipeline to the Woomera rocket range completed. The Commonwealth and South Australian Governments ratified an agreement for the standardisation of railway gauges.
- 1950—Petrol, butter and tea rationing discontinued. Federal free drugs scheme came into operation. Water restrictions imposed in December and remained in force until June 1951.
- 1951—Serious bush fires occurred in January. Wool prices reached a record high level. Distribution of free milk to school children introduced.
- 1952—The hospital benefits scheme came into operation. Price control on clothing removed in South Australia. Severe import restrictions gazetted. Installations for the bulk handling of grain opened at Ardrossan. Compulsory chest X-rays introduced.
- 1953—Remaining controls on building removed. Port Pirie became the first country town to be proclaimed a city. The medical benefits scheme came into operation. Automatic quarterly cost-of-living adjustments to the basic wage discontinued. Size of the State Cabinet increased from six to eight Ministers.

- 1954—A severe earthquake occurred in Adelaide on 1 March. Her Majesty Queen Elizabeth II visited South Australia. First unit of Port Augusta power station opened. Construction of dwellings in Elizabeth commenced. Water from the River Murray pumped into metropolitan reservoirs through the Mannum pipeline.
- 1955—Adelaide Airport at West Beach opened. The new satellite town at Elizabeth officially opened.
- 1956—River Murray flooded for several months and caused considerable damage in irrigation and reclaimed areas. Town Planning Committee established. Atomic device exploded at Maralinga. Salk Poliomyelitis vaccination program commenced.
- 1957—Centenary of responsible government in South Australia celebrated. Long service leave legislation passed by the South Australian Parliament.
- 1958—Visit of Queen Elizabeth, the Queen Mother, to South Australia. Introduction of parking meters to Adelaide. South Para Reservoir opened and connected to Adelaide water supply. Final run by a street tram in Adelaide, following conversion to diesel bus transport.
- 1959—South Australia ceased to be a claimant State for special grants from Grants Commission. Full-scale television transmission commenced. Sir Thomas Playford created record term as Premier in a British country (26 years 125 days). Aborigines became eligible for age, invalid and widows pensions.
- 1960—First Adelaide Festival of Arts held (March 12-26). Completion of second unit and formal opening of Thomas Playford power station at Port Augusta.
- 1961—First United Kingdom Trade Commissioner appointed to South Australia. Compulsory driving tests introduced. The trailer ship *Troubridge* made its first run from Port Adelaide to Kingscote and Port Lincoln. Sturt's Desert Pea declared State's official floral emblem.
- 1962—Myponga Reservoir completed and linked to Happy Valley Reservoir. Duplication of Morgan-Whyalla pipeline commenced.
- 1963—Population of the State passed 1 000 000 mark. Port Stanvac oil refinery 'on stream'. School leaving age increased to fifteen years. Three weeks annual leave for employees governed by State awards and determinations introduced. First direct dialling for an overseas telephone call from South Australia. Major gas flow from Gidgealpa No. 2 well. Royal visit by her Majesty, Queen Elizabeth II.
- 1964—Work commenced on conversion of Port Pirie-Broken Hill railway to standard gauge. First gas from Port Stanvac refinery piped for use in Adelaide's gas supply. Record wind gust (148 km/h) and all-time low barometric reading (985 mb) registered at Adelaide on 12 July. New world land speed record set by Donald Campbell on Lake Eyre.
- 1965—Election of first Labor State Government since 1933. First country television station opened at Port Pirie. Steel works including a basic oxygen steel making plant opened at Whyalla. First tenders let for Torrens Island power structure. First woman judge in Australia appointed to Supreme Court of South Australia. Size of the State Cabinet increased from eight to nine Ministers.

- 1966**—Women sworn in for jury service for the first time. The Flinders University of South Australia at Bedford Park officially opened by Queen Elizabeth the Queen Mother. Second major natural gas strike in Gidgealpa area. New outlet tunnel 2 700 metres long from Happy Valley Reservoir completed. ELDO rocket Europa-1 launched at Woomera. Industrial Commission of SA replaced the SA Board of Industry.
- 1967**—Totalizator Agency Board operated off-course in South Australia for the first time. First South Australian lottery drawn. Federal Basic Wage superseded by Total Wage concept. Liquor trading hours extended to 10 p.m. WRESAT-1, first Australian orbital satellite launched from Woomera. New record low annual rainfall for Adelaide (257 mm). Torrens Island power station commenced operations. First off-shore drilling rig—*Ocean Digger*—constructed and launched at Whyalla.
- 1968**—State elections held, Labor Government returned but subsequently defeated on the floor of the House at the first meeting of the new Parliament. New Liberal Premier, Mr R. S. Hall sworn in. Four weeks leave for State Government employees introduced. Construction commenced on State's first satellite communications station at Ceduna. Legal drinking age lowered from twenty-one to twenty. Sealed highway from Broken Hill to Adelaide opened. Sir James Harrison first Australian-born Governor of South Australia sworn in.
- 1969**—Work begun on second major pipeline to bring River Murray water to Adelaide. Forty-first Congress of the Australian and New Zealand Association for the Advancement of Science held in Adelaide. Electricity Trust signed \$120 million contract for supply of natural gas. Natural gas flowed through completed 832 kilometre pipeline from Moomba-Gidgealpa to Adelaide.
- 1970**—Abortion law reformed in South Australia. Standard gauge working on new line between Port Pirie and Broken Hill begun. First direct telecast from England to Australia via satellite. First contracts signed for construction of \$4.8 million Adelaide Festival Theatre. Hairy-nosed wombat adopted as State's faunal emblem. South Australian Government applied to Commonwealth Grants Commission for financial assistance and received an interim grant.
- 1971**—Fluoridation of Adelaide water supply commenced. Agreement for supply of natural gas to Sydney from South Australian gas fields finalised. Points demerit scheme for drivers who commit road traffic offences introduced. Age of Majority reduced from twenty-one to eighteen. Commonwealth Government transferred power to levy payroll tax to the States. Daylight saving introduced in South Australia for the first time since the 1939-45 War. Agreement to build Dartmouth Reservoir ratified by SA Parliament. Plans announced for development of Patchawarra oil field at estimated cost of \$200 million including pipelines to Adelaide and Sydney. Death of SA Governor Sir James Harrison in office and Sir Mark Oliphant, the first SA born Governor, sworn in. Wearing of seat belts in motor vehicles made compulsory. Plans announced by the South Australian National Football League for new headquarters at West Lakes.
- 1972**—Plans announced for creation of new city of more than 100 000 people near Murray Bridge. New Stirling to Verdun freeway opened. Plans announced for the sealing of the Eyre Highway from Penong to the WA border. New laws regulating door-to-door selling and used car dealing introduced. Plans to filter Adelaide's water supply at a cost of \$35 million announced. University of

Adelaide's educational radio station VL5UV commenced broadcasting. Work begun on \$40 million Flinders Medical Centre. Weather temperature reports changed to degrees Celsius. North Haven residential project to house 4 000 people at the northern end of Le Fevre Peninsula announced. Daylight saving re-introduced for 1972-73 and subsequent summers. South Australian Film Corporation commenced operation. South Australia's first ombudsman, Mr G. D. Combe, appointed.

**1973**—New long service leave provision for three months leave after ten years service came into force. Plans announced for the building of a new \$40 million lubrication oil refinery at Port Stanvac. Work begun on \$62 million Dartmouth dam project. New \$11 million hospital opened at Modbury. Dunstan ALP Government returned at State election to become the first ALP Government to retain office after a general election in South Australia since 1910. Cross Lotto game introduced by State Lotteries Commission. Lake Eyre filled with water for the first time since 1950 because of floodwaters in the north of the State. \$6.6 million Adelaide Festival Theatre opened by the Prime Minister. Legislation enacted for adult franchise and proportional representation for the Legislative Council. Compulsory blood tests for road accident victims introduced. \$50 note issued for the first time. Bill passed in State Parliament for extensive improvement in workers' compensation benefits. Commonwealth Government took over responsibility for Aboriginal Affairs from South Australian Government.

**1974**—World Gliding Championships held at Waikerie. Prince Philip, the Duke of Edinburgh, visited South Australia. University of Adelaide celebrated its centenary. Prime Minister opened new \$4.8 million Australian Broadcasting Commission complex at Collinswood. Police dog patrols commenced. Plans announced for building of \$2.8 million boat harbour at Taperoo. First match held at the new South Australian National Football League headquarters at West Lakes. Commonwealth Government agreed to provide \$22 million for the sealing of a new two-lane highway between Port Augusta and Alice Springs. Conversion of road signs to metric measurements undertaken. New development plan for Adelaide released. Judgment handed down making four weeks annual leave standard for workers under State awards. State primary schools began a new program of continuous admission of children on their fifth birthday. New State taxes on petrol and tobacco announced. Playhouse, Space and Amphitheatre at the Adelaide Festival Centre opened. Legislation allowing hotel trading to 12 midnight on Fridays and Saturdays came into force.

**1975**—Phase I of \$54 million Flinders Medical Centre opened. Transmission of television in colour commenced. Work began on \$140 million Tarcoola-Alice Springs rail link. International Equestrian Exposition 1975 held in Adelaide and attended by Her Royal Highness, Princess Anne. Plans announced for the building of a new meteorological centre at Kent Town. State Election held on 12 July, after the Legislative Council failed to pass the Railways (Transfer Agreement) Bill; the Dunstan ALP Government was returned with a reduced majority and the Bill was subsequently passed. Medibank commenced operations in South Australia. Legislation for the redistribution of House of Assembly electoral boundaries passed by the Legislative Council. Bankcard began operations in South Australia. The South Australian Industrial Commission adopted the National Wage indexation guidelines for State awards.

**1976**—FM radio broadcasting began in South Australia. Rail track to Christie Downs opened. \$6.25 million Regency Park centre for treatment and care of physically handicapped children opened. A new commercial radio station (5AA) went to air, Adelaide's first for forty-six years. A new political party, the New Liberal Movement formed. The State Government announced plans to establish a Youth Work Unit to help school leavers and other unemployed young people to find jobs. Sir Douglas Nicholls appointed as Governor of South Australia from 1 December 1976. Sections of the new coastal route of the Eyre Highway opened. Smoking banned on buses operated by the Bus and Tram Division of the State Transport Authority. The Australia Post began a full courier service in Adelaide. Plans announced for on-the-spot fines of \$20 for littering. Price control on petrol removed for a six-month trial period. Plans announced for abolition of South Australian succession duties on estates passing to husbands and wives. Thirty-three metropolitan and fourteen country seats formed in the redistribution of House of Assembly electorates by the Electoral Boundaries Commission. Date stamping regulations for all short-life perishable foods approved by Executive Council. Rundle Mall commissioned by the Premier on 1 September. A total eclipse of the Sun occurred in parts of South Australia on 23 October. Large deposits of copper ore discovered at Roxby Downs near Andamooka. Legislation passed making rape within marriage a criminal offence. Capital punishment abolished in South Australia.

**1977**—The State Government announced a \$40 million oil and gas search program in the north of the State. Her Majesty Queen Elizabeth II and the Duke of Edinburgh visited South Australia. \$5.8 million Southern Plaza at the Adelaide Festival Centre officially opened by Her Majesty Queen Elizabeth II. The German vessel *Visurgis* became the first container ship to use the new container terminal at Outer Harbor. South Australia's first million dollar lottery, the Celebration Lottery, drawn by the Lotteries Commission. Plans announced for a \$11 million gas turbine generating plant to be built at Snuggery in the South East. The State Government Insurance Commission entered the field of life insurance. A Royal Commission established to enquire into shopping hours. A major deposit of sub-bituminous coal discovered near Lock. The State's new beverage container deposit legislation came into operation. The State Government announced plans for a new hospital to be built at Christies Beach. The South Australian Health Commission came into operation. Keith Seaman sworn in as the new Governor of South Australia. Adelaide's first water filtration plant at Hope Valley commenced operations. Legislation passed for the control of domestic and industrial noise. Late night shopping in city and suburbs commenced.

**1978**—State Government ordered a new \$17m fleet of trains for the Adelaide commuter rail network. RAAF to spend \$300m on new aircraft and facilities at Edinburgh. A Royal Commission held into the dismissal of Police Commissioner Salisbury. The last ship to be built at Whyalla shipyards, the *Denis O'Malley*, was launched. State Government announced details of a new \$53m high speed tramway to link north-eastern suburbs with Adelaide. Adelaide tramways held centenary celebrations.



## APPENDIX C

### RECENT INFORMATION

In this section details are given of some important developments which have occurred recently. More up-to-date statistics than those shown in this volume are regularly incorporated in various statistical publications as they become available. A list is included on pages 653-4.

#### PART 5—POPULATION

*Characteristics of the Population* (pages 147-54)—Selected statistics relating to characteristics of the population derived from information obtained at the 1976 Census are shown below.

#### Mode of Travel to Work, Employed Population, South Australia Census 30 June 1976

Mode of Travel	Males	Females	Persons	Proportion (Per Cent)
Train .....	7 865	5 246	13 111	2.4
Bus .....	19 934	26 821	46 755	8.5
Ferry or tram .....	1 210	1 023	2 233	0.4
Taxi .....	1 236	1 034	2 270	0.4
Car—as driver .....	224 687	72 182	296 869	54.2
Car—as passenger .....	25 323	36 704	62 026	11.3
Motor bike, motor scooter .....	9 381	962	10 343	1.9
Bicycle .....	7 531	2 610	10 141	1.9
Walked only .....	22 900	18 123	41 023	7.5
Worked at home .....	19 722	21 882	41 605	7.6
Not stated .....	12 515	15 834	28 350	5.2

**Monthly Mortgage Payments by Number of Mortgages, South Australia  
Census 30 June 1976**

Amount per Month	Number of Dwellings			Proportion (Per Cent)
	One Mortgage	Two or more Mortgages	All Mortgages	
Less than \$25 .....	12 688	7 996	11 840	8.0
\$25-\$49 .....	35 522	6 334	31 092	21.0
\$50-\$74 .....	31 078	4 064	27 500	18.5
\$75-\$99 .....	18 000	2 684	18 040	12.2
\$100-\$124 .....	16 292	2 620	16 144	10.9
\$125-\$149 .....	7 830	1 058	8 758	5.9
\$150-\$174 .....	6 126	776	7 294	4.9
\$175-\$199 .....	3 846	348	4 874	3.3
\$200-\$224 .....	3 828	356	4 752	3.2
\$225-\$249 .....	1 420	150	2 298	1.5
\$250-\$274 .....	1 342	108	2 116	1.4
\$275-\$299 .....	558	44	1 130	0.8
\$300-\$324 .....	754	90	1 160	0.8
\$325-\$349 .....	304	34	620	0.4
\$350-\$374 .....	296	38	540	0.4
\$375 and over .....	1 098	154	1 780	1.2
Not stated .....	7 372	2 364	8 414	5.7
Private dwellings with two or more mortgages .....	..	29 218	..	..
Total occupied mortgaged private dwellings .....	148 352	..	148 352	100.0

**Annual Personal Income, South Australia  
Census 30 June 1976**

Amount	Males	Females	Persons	Proportion (Per Cent)
None .....	31 212	102 317	133 529	14.6
Less than \$1 500 .....	11 138	56 848	67 986	7.4
\$1 500-\$2 000 .....	26 764	45 761	72 525	7.9
Over \$2 000-\$3 000 .....	28 919	58 284	87 203	9.5
Over \$3 000-\$4 000 .....	20 530	33 444	53 974	5.9
Over \$4 000-\$5 000 .....	23 136	32 390	55 526	6.1
Over \$5 000-\$6 000 .....	39 467	33 283	72 750	8.0
Over \$6 000-\$7 000 .....	61 048	27 049	88 096	9.6
Over \$7 000-\$8 000 .....	55 647	17 372	73 019	8.0
Over \$8 000-\$9 000 .....	43 115	9 352	52 467	5.7
Over \$9 000-\$12 000 .....	57 550	10 624	68 174	7.5
Over \$12 000-\$15 000 .....	19 808	2 498	22 306	2.4
Over \$15 000-\$18 000 .....	7 964	868	8 832	1.0
Over \$18 000 .....	8 668	1 027	9 695	1.1
Not stated .....	15 725	32 882	48 608	5.3
Total population 15 years and over .....	450 690	464 001	914 690	100.0

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**SOUTH AUSTRALIAN PUBLICATIONS<sup>(1)</sup>**

Cat. No.	Publication	Latest Issue at 31 August 1978	Month of Issue
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1302.4	Pocket Year Book of South Australia a <sup>(2)</sup>	1978	May 1978
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4301.4	Survey of the Use of Health Services irr	1971	Dec. 1972
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