



# SOUTH AUSTRALIAN YEAR BOOK



1992

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**SOUTH AUSTRALIAN**

**YEAR BOOK**

**1992**

Cover: Adelaide skyline at twilight.  
*Tourism South Australia*



# **South Australian Year Book**

**No. 26 : 1992**

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AUSTRALIAN BUREAU OF STATISTICS  
SOUTH AUSTRALIAN OFFICE

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## PREFACE

The *South Australian Year Book* is the major reference work produced by the South Australian Office of the Australian Bureau of Statistics. It provides the historical and geographical background and a comprehensive statistical profile of the social, demographic and economic development of this State and presents a picture of South Australia today. The *South Australian Year Book* is also illustrative of the wide range of social and economic data which is available from the Australian Bureau of Statistics.

Most of the statistics contained in this volume relate to the years ended December 1990 or June 1991. More detailed, and in most cases more recent, statistics are available in other ABS publications. The more significant of these publications are listed at the end of the relevant chapters of the Year Book, while the *ABS Catalogue of Publications and Products* (1101.0) lists all current publications of the ABS.

This, the twenty-sixth issue contains an article on the Murray Lands, the second in a series of articles presenting a detailed study of the various regions of the State. The two pictorial sections show various facets of South Australia, from a tranquil scene on the River Murray to the submarine construction at Port Adelaide.

I extend my thanks and appreciation to all those staff involved in the preparation of the *South Australian Year Book* and the organisations who have kindly supplied material for inclusion in this edition.

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Australian Bureau of Statistics  
Adelaide  
December 1991

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# GENERAL INFORMATION

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

## **Other forms of usage**

Yearly periods shown as *e.g.* 1990 refer to the year ended 31 December 1990; those shown as *e.g.* 1989–90 refer to the year ended 30 June 1990. Other yearly periods are specifically indicated.

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.

Where figures have been rounded, discrepancies may occur between sums of component items and totals.

## **Citation of Acts**

Acts of the South Australian Parliament are cited in italics *e.g.* *Planning Act 1982*.

Acts of the Commonwealth Parliament are cited in italics immediately followed by jurisdiction (abbreviated) in roman type and in parentheses *e.g.* *Census and Statistics Act 1905 (Cwlth)*.

## **Services provided by ABS**

A comprehensive range of statistics is made available to the clients in published form. Some statistics, including those which are not published, may also be available in the form of microfiche, photocopy, computer printout, clerically-extracted tabulation, floppy disk, magnetic tape and compact disk. A wide range of statistics can also be accessed electronically.

The *Catalogue of Publications and Products* (1101.0), which is available free of charge on request, shows the range of ABS products. These products are available for sale from the ABS bookshop. The library holds copies of ABS publications and is available to the public.

The ABS has a publication subscription service. Readers are encouraged to subscribe to ABS publications to ensure they receive them on a regular and timely basis.

The Information Consultancy Service, which operates on a fee for service basis, has specialist staff to assist and advise clients with their statistical inquiries.

For more information about these services telephone the Information Officer on Adelaide (08) 237 7100 or call at the ABS, 55 Currie Street or write to Information Services, ABS, GPO Box 2272, Adelaide 5001.

## Chapter 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 1,139 kilometres at the head of the Great Australian Bight; from north to south it varies from 630 kilometres near the western extremity to approximately 1,336 kilometres near the eastern boundary; its coastline, excluding islands, measures approximately 3,700 kilometres. South Australia covers a total area of 984,377 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.

Area, Coastline and Standard Times, Australia

State or Territory	Estimated area (a)		Length of coastline (a) km	Standard time	
	Total	Percentage of total area		Meridian selected	Ahead of GMT
	'000 km <sup>2</sup>				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
Western Australia .....	2,526	32.87	12,500	120°E	8.0
<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>
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
<i>Australia .....</i>	<i>7,682</i>	<i>100.00</i>	<i>36,735</i>	<i>..</i>	<i>..</i>

(a) As determined by the Survey and Land Information Group.

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

The areas and length of coastline were determined by the Survey and Land Information Group 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 kilometres. These points were joined by chords as the basis for calculation of areas and coastline lengths by computer.

Distances Between Adelaide and Other Capital Cities  
(Kilometres)

<i>Method of travel</i>	<i>Canberra</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>
Road (a) . . . . .	1,202	1,424	730	2,056	2,716	..	3,042
Rail . . . . .	2,007	1,691	774	2,678	2,661	..	..
Sea . . . . .	..	1,833	949	2,761	(b)2,509	1,436	(c)5,799
Air . . . . .	988	1,196	660	1,967	2,216	1,283	2,766

(a) RAA recommended routes. (b) To Fremantle. (c) Via Fremantle.

### Standard time

In terms of the *Standard Time Act 1898* South Australia has used 'the mean time of the meridian of longitude 142.5 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.

The *Daylight Saving Act Amendment Act 1972*, provided for the observance of daylight saving in the summer of 1972-73, and in each summer since, from October to March.

A special article on the basis of time keeping and the determination of time standards was included on pages 4-5 of the *South Australian Year Book 1984*. An article on the determination of the time of sunrise and sunset was included on pages 6-7 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.

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 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 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 (1,435 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 twenty-two 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 fifteen 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.

## 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.

### Rainfall

#### *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 were 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 been recorded by official rainfall observers within a period of 24 hours ending at 9 a.m. were at:

Motpena (14 March 1989) .....	273 mm
Cordillo Downs (6 February 1991) .....	241 mm
Stansbury (18 February 1946) .....	222 mm
Stirling (17 April 1889) .....	208 mm
Ardrossan (18 February 1946) .....	206 mm
Oodnadatta (9 February 1976) .....	200 mm
Carpa, 25 km SW of Cowell (18 February 1946) .....	199 mm
Innamincka Station (28 January 1974) .....	189 mm

Several other exceptional rainfalls have been recorded by private observers including 228 millimetres in four hours at Dutton (near Truro) on 2 March 1983 (during this storm a fall in excess of 300 millimetres occurred at a nearby property), 226 millimetres in 24 hours at Spring Mount on 26 January 1941 and 191 millimetres near Buckleboo on 26 January 1981.

**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. 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.

Generally the highest annual average rainfalls occur along the ranges and southern parts of the coast. The rainfall decreases rapidly to less than 250 millimetres within 150 to 250 kilometres inland, and then more gradually to below 150 millimetres in the vicinity of Lake Eyre. This area is the driest part of Australia and there have been several periods when the annual totals were less than 75 millimetres during consecutive years.

Mean monthly rainfalls at selected recording stations are shown in the table below.

Mean Rainfall and Days of Rain : Selected Stations

Period	Adelaide	Ceduna	Mount	Oodnadatta	Port Pirie	Tailem
	(West Tce)		Gambier			Bend
MEAN RAINFALL (a) (millimetres)						
January .....	20	11	25	28	18	17
February .....	21	15	27	29	18	21
March .....	24	18	36	14	18	23
April .....	44	22	58	11	29	29
May .....	68	37	75	15	40	42
June .....	72	36	79	12	41	39
July .....	67	42	101	10	34	39
August .....	62	36	91	9	35	41
September .....	51	27	70	10	35	38
October .....	45	25	64	13	33	38
November .....	31	21	47	11	23	29
December .....	26	19	38	14	21	26
<b>Year .....</b>	<b>531</b>	<b>309</b>	<b>711</b>	<b>176</b>	<b>345</b>	<b>382</b>
AVERAGE NUMBER OF DAYS OF RAIN (b)						
January .....	4	4	9	3	3	3
February .....	4	4	8	2	2	4
March .....	5	4	11	2	3	4
April .....	9	7	15	2	5	7
May .....	13	11	18	3	8	11
June .....	15	11	19	3	10	11
July .....	16	13	22	2	10	13
August .....	16	12	21	3	10	13
September .....	13	10	19	3	8	11
October .....	11	8	17	3	7	9
November .....	8	6	14	3	5	7
December .....	6	5	12	3	4	6
<b>Year .....</b>	<b>120</b>	<b>95</b>	<b>185</b>	<b>32</b>	<b>75</b>	<b>100</b>

(a) For all years of record to end of 1982 except for Adelaide. (b) Days receiving 0.2 millimetres or more.

**Temperature****Seasonal temperature conditions**

Air temperature is normally recorded under standard conditions in a Stevenson Screen. 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 (Kent Town) which are estimates based on a comparison of readings taken between 1977 and 1979 at the Kent Town and West Terrace observation sites.

Mean Maximum Temperatures : Selected Stations  
(°Celsius)

<i>Period</i>	<i>Adelaide (Kent Town)</i>	<i>Ceduna</i>	<i>Mount Gambier</i>	<i>Oodnadatta</i>	<i>Port Pirie</i>	<i>Tailem Bend</i>
January .....	28.8	28.5	25.1	37.4	31.6	30.0
February .....	29.0	27.9	24.8	36.4	31.5	29.1
March .....	26.1	26.6	22.9	33.7	28.9	27.2
April .....	22.4	24.0	19.2	28.3	24.6	23.7
May .....	18.8	20.7	15.9	23.0	19.9	19.2
June .....	16.0	18.1	13.8	19.8	17.1	16.9
July .....	15.0	17.2	13.0	19.5	16.2	15.8
August .....	16.7	18.4	14.0	21.9	17.7	16.9
September .....	18.6	21.2	15.7	26.1	20.5	19.5
October .....	21.8	23.6	17.7	30.2	24.1	23.0
November .....	24.8	25.8	20.0	33.6	27.1	25.0
December .....	27.1	27.2	22.6	36.3	29.4	27.0
<b>Year .....</b>	<b>22.1</b>	<b>23.3</b>	<b>18.7</b>	<b>28.9</b>	<b>24.1</b>	<b>22.8</b>

Mean Minimum Temperatures : Selected Stations  
(°Celsius)

<i>Period</i>	<i>Adelaide (Kent Town)</i>	<i>Ceduna</i>	<i>Mount Gambier</i>	<i>Oodnadatta</i>	<i>Port Pirie</i>	<i>Tailem Bend</i>
January .....	16.6	14.9	10.8	22.5	17.7	14.0
February .....	16.7	14.8	11.4	22.1	17.9	13.8
March .....	15.2	13.1	10.3	19.2	16.1	12.4
April .....	12.1	10.7	8.6	14.2	13.4	10.4
May .....	10.3	8.5	7.2	9.7	10.8	8.2
June .....	7.8	6.4	5.5	6.5	8.4	6.1
July .....	7.2	5.7	4.9	5.7	7.7	5.6
August .....	8.3	6.1	5.3	7.2	8.3	6.1
September .....	9.4	7.7	6.1	11.0	9.7	7.2
October .....	11.2	9.6	6.9	15.0	12.0	8.9
November .....	13.8	12.1	8.1	18.3	14.4	10.7
December .....	15.5	13.8	9.7	21.0	16.3	12.2
<b>Year .....</b>	<b>12.0</b>	<b>10.3</b>	<b>7.9</b>	<b>14.4</b>	<b>12.7</b>	<b>9.6</b>

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.

## 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, the earliest figures were mislaid and records are available only from the beginning of 1839. No other regular observations were made until Sir Charles Todd arrived to fill the post of Superintendent of Telegraphs and Government Astronomer in 1856.

In May 1860 the Observatory on West Terrace was completed and the instruments were moved to that site. For over 100 years the observation site at Adelaide remained practically unchanged. In February 1977, the Adelaide Regional Office of the Bureau of Meteorology moved from West Terrace to College Road, Kent Town. Although a new observation site was set up at Kent Town, observations continued at West Terrace until February 1979 in order to compare the two sites.

Statistics derived from the long-standing West Terrace site, now demolished, serve as a valuable basis for describing the climate of the City of Adelaide and will continue to be useful guides to the future conditions - figures for West Terrace are therefore shown.

Temperature records at Adelaide date from 1857, when readings were first taken from a thermometer placed in a screen known as a Greenwich Stand which failed to protect the thermometer fully from reflected radiation. In 1887 a new series of readings using a standard Stevenson Screen was introduced and this showed maximum temperatures during the warmer months to be 1° to 1.5°C lower on average. Other temperatures were not significantly affected. Both screens were in continuous operation until 1947 when use of the Greenwich Stand was discontinued. However, the Greenwich Stand readings remained the official record until 1947, thus there is a slight discontinuity in the temperature records in that year and means are weighted towards the Greenwich Standard method of measurement.

Adelaide is the driest of Australia's capital cities, having less rainfall and a lower relative humidity than any other capital. Summer maximum temperatures are high and the record of 47.6°C in the Greenwich Stand on 12 January 1939 is the highest recorded in any of the capital cities.

### 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 usually the coldest month, when the mean maximum is 15°C. However, the extreme lowest minimum recorded is -0.4°C on 8 June 1982. August is only slightly warmer than July, but after August steadily rising temperatures are experienced.

Climatological Data, West Terrace, Adelaide  
(1) Temperature and Rainfall based on a composite record of Greenwich Stand and Stevenson Screen observations

Month	Temperature					Rainfall		
	Maximum		Minimum		Mean	Mean	Highest monthly and yearly total	Mean days of rain (a)
	Mean	Highest recorded	Mean	Lowest recorded				
Years of record	122	122	122	122	122	140	140	140
	°C	°C	°C	°C	°C	mm	mm	No.
January	29.5	47.6	16.4	7.3	23.0	20	84	4
February	29.3	45.3	16.6	7.5	23.0	21	155	4
March	26.8	43.6	15.1	6.6	21.0	24	117	5
April	22.7	37.0	12.6	4.2	17.7	44	154	9
May	18.7	31.9	10.3	2.7	14.5	68	197	13
June	15.8	25.6	8.3	0.3	12.1	72	218	15
July	15.0	26.6	7.3	0.0	11.1	66	138	16
August	16.4	29.4	7.8	0.2	12.1	61	157	15
September	18.9	35.1	9.0	0.4	13.9	51	148	13
October	22.0	39.4	10.9	2.3	16.5	44	133	11
November	25.1	45.3	12.9	4.9	19.1	31	113	8
December	27.7	45.9	15.0	6.1	21.3	26	101	6
Year	22.3	47.6	11.9	0.0	17.1	528	786	119

Climatological Data, West Terrace, Adelaide (continued)  
(2) Other Conditions

Month	Mean daily sunshine	Clear days (b)	Mean amount of cloud (c)	Amount of evaporation (d)	Vapour pressure 9 a.m.	Mean barometric pressure (e)
Years of record	95	58	107	12	108	121
	<i>hours</i>	<i>No.</i>		<i>mm</i>	<i>mb</i>	<i>mb</i>
January .....	10.0	12.4	3.1	254	11.9	1,013.2
February .....	9.3	10.9	3.3	216	12.5	1,014.3
March .....	7.9	10.9	3.5	176	12.0	1,017.2
April .....	6.0	6.6	4.5	120	11.5	1,019.9
May .....	4.8	4.6	5.1	79	10.8	1,020.1
June .....	4.2	4.0	5.3	56	10.0	1,019.9
July .....	4.3	3.6	5.2	1.3	9.5	1,020.0
August .....	5.3	4.9	4.9	0.6	9.7	1,019.0
September .....	6.2	5.7	4.6	0.2	10.0	1,017.7
October .....	7.2	5.7	4.5	0.0	10.2	1,016.0
November .....	8.6	6.6	4.2	0.0	10.5	1,015.0
December .....	9.4	9.0	3.7	0.0	11.3	1,013.3
Year .....	6.9	85.0	4.3	3.6	10.8	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.

Rainfall

Adelaide's summer rainfall is light and unreliable. The average monthly fall of January, February and March is under 25 millimetres and completely rainless months in this period are common. 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. However, 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 140 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.

## Chapter 2

# HISTORY AND CHRONOLOGY

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- 1627** The first recorded sighting of the South Australian coast by Europeans, when Dutch ship *Gulden Zeepaard* examined the coastline from Cape Leeuwin to the islands of St Francis and St Peter in the far west of South Australia.
- 1792** The next recorded sighting of South Australia made by the French explorer Rear Admiral D'Entrecasteaux while searching for the lost French explorer La Perouse. In December he sighted land south of Cape Leeuwin and examined the cliffs of the Great Australian Bight.
- 1800** Lieutenant James Grant was the first British explorer to sail along the South Australian coast. He sighted the extreme easterly shores of South Australia and named Cape Banks, Cape Northumberland, Mount Schank and Mount Gambier.
- 1802** Mathew Flinders in the *Investigator* thoroughly explored the coast of South Australian waters between Nuyts Archipelago and Encounter Bay. He discovered the Gulfs and Central Highlands and reported a very promising country for settlement.
- 1804 – 1836** A number of further discoveries took place at various parts of South Australian coastline by Captains Dillon (1815–16), Gould (1827–28), Hart (1831–33), and Jones (1833–34).
- 1829** While imprisoned in Newgate Gaol, Edward Gibbon Wakefield produced a number of writings including the now famous *A Letter from Sydney* series which contained his radical ideas for the colonisation of South Australia.
- 1830** Captain Charles Sturt explored the River Murray from New South Wales to its mouth; traversed Lake Alexandrina and located the Goolwa Channel, reaching the western shore of the Murray mouth on 12 February.
- 1833** Charles Sturt's *Two Expeditions into the Interior of Southern Australia* was published. This glowing report of South Australia was welcomed by those in England seeking a suitable site to establish a colony where the Wakefield Plan could be applied without restriction.
- 1834** The South Australian Colonisation Act was assented to on 15 August. 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.
- 1836** First migrants landed at Kangaroo Island on 27 July. First South Australian newspaper published in London. Colony's first school opened on Kangaroo Island. The Surveyor-General, Colonel 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** Colonel 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 on 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** Colonel 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** Agricultural 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 River 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 introduced by Sir Thomas Elder for the purpose of exploration. The Adelaide Town Hall opened.
- 1867** Visit of H.R.H. Prince 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. First official cricket match played on Adelaide Oval.
- 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 University of Adelaide 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 H.R.H. 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.
- 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 from 1 January 1901. Conservatorium of Music opened. First Workmens 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 judgment – 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 transcontinental 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. H.R.H. Edward, 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 bushfires 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 Company.
- 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 bushfires 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 bushfires 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). Aboriginals 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) 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 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 Her Majesty Queen Elizabeth, the Queen Mother. New outlet tunnel 2,700 metres long from Happy Valley Reservoir completed. ELDO rocket *Europa-1* launched at Woomera.
- 1967** Totalisator 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, R.S. Hall sworn in. Four weeks leave for State Government employees introduced. 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. 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. First direct telecast from England to Australia via satellite. Hairy-nosed wombat adopted as State's faunal emblem.
- 1971** Fluoridation of Adelaide water supply commenced. 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. Death of SA Governor Sir James Harrison in office. Sir Mark Oliphant, the first SA born Governor, sworn in. Wearing of seat belts in motor vehicles made compulsory.
- 1972** New Stirling to Verdun freeway opened. New laws regulating door-to-door selling and used car dealing introduced. University of Adelaide's educational radio station VL5UV commenced broadcasting. Weather temperature reports changed to degrees Celsius. Daylight saving re-introduced for 1972–73 and subsequent summers. South Australian Film Corporation commenced operation. South Australia's first ombudsman appointed.

- 1973** New long service leave provision for three months leave after ten years service came into force. 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. 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.
- 1974** World Gliding Championships held at Waikerie. H.R.H. Prince Philip, the Duke of Edinburgh, visited South Australia. First match held at the new South Australian National Football League headquarters at West Lakes. Conversion of road signs to metric measurements undertaken. Judgment handed down making four weeks annual leave standard for workers under State awards. Legislation allowing hotel trading to 12 midnight on Fridays and Saturdays came into force.
- 1975** Transmission of television in colour commenced. International Equestrian Exposition 1975 held in Adelaide and attended by H.R.H. Princess Anne. 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.
- 1976** 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. Sir Douglas Nicholls appointed as Governor of South Australia from 1 December 1976. 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** 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. South Australia's first million dollar lottery, the Celebration Lottery, drawn by the Lotteries Commission. A major deposit of sub-bituminous coal discovered near Lock. The South Australian Health Commission came into operation. Keith Seaman sworn in as the new Governor of South Australia. Adelaide first water filtration plant at Hope Valley commenced operations. Late night shopping in city and suburbs commenced.
- 1978** 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. Adelaide tramways held centenary celebrations. Lotteries Commission introduced Instant Money Game with prizes of up to \$10,000. South Australian Heritage Committee was formed.
- 1979** A new public transport zone-fare system introduced. D.A. Dunstan, the State's second longest serving Premier resigned for health reasons. Adelaide's unemployment levels highest in Australia in March - 8.9 per cent of the workforce. Santos legislation passed, limiting maximum permissible single shareholdings to 15 per cent. State elections held; D.O. Tonkin, new Liberal Premier, sworn in. Merger of Bank of Adelaide with ANZ Banking Group approved. Charles Moore retail group ceased operating in South Australia.



- 1980** Norwood by-election, ordered by Court of Disputed Returns, won by ALP candidate G. Crafter. Bushfire destroyed thirty-five houses in Adelaide Hills, causing \$6 million damage. First of State Transport Authority's new 'Series 2000' railcars began service. Mitsubishi Motor Corporation purchased control of Chrysler Australia Ltd. New slogan 'The Festival State' for South Australian motor vehicle number-plates. Constitutional Museum opened. H.R.H. Princess Alexandra and her husband, Mr Angus Ogilvy, visited South Australia. The Tarcoola-Alice Springs rail link opened.
- 1981** By-election for Federal seat of Boothby, made vacant by the appointment of Mr J. McLeay as Consul-General in Los Angeles, won by Mr R. Steele Hall (Liberal). On February 15, Adelaide had its hottest day since 1948. Temperature reached 43.4°C. H.R.H. Charles, Prince of Wales visited South Australia. On June 1, Adelaide recorded its lowest barometric pressure ever (979 millibars).
- 1982** Commencement of Moomba-Stony Point liquids pipeline. An Australian register of ships established. Lt-Gen. Sir Donald Dunstan, KBE, CB, sworn in as the State's new Governor, in April. Mr Mario Feleppa, AM, endorsed to fill a casual vacancy in the Legislative Council, became the first Italian-born migrant to enter the South Australian Parliament. On June 8, Adelaide experienced its coldest minimum temperature since the Bureau of Meteorology began taking records in 1857; -0.4°C. Following amendments to the Licensing Act, some hotels in 'tourist areas' began trading on Sundays, for one or two 2-hour periods. State elections held; J.C. Bannon, new Labor Premier sworn in. International air services commenced through Adelaide.
- 1983** First twins born in South Australia under Queen Elizabeth Hospital's *in vitro* fertilisation program. Large bushfires in February claimed 28 lives in South Australia. Damage estimated at over \$200 million. Fires at nine separate locations, including Clare, Adelaide Hills, and South-East. Adelaide recorded its lowest maximum March daytime temperature, 14.9°C (on March 22) for 104 years. The State was visited by H.R.H. Charles, Prince of Wales, and the Princess of Wales. Mrs Wendy Chapman was elected Adelaide's first woman Lord Mayor. Liquids pipeline from Moomba to Port Bonython completed.
- 1984** Maralinga Land Rights Bill was passed by State Parliament, returning 76,000 square kilometres of South Australia's Far North to the traditional Aboriginal owners. Australian National's new Adelaide Rail Passenger Terminal at Keswick began operating. Australia's new \$100 note and \$1 coin released for the first time. State Bank and Savings Bank of South Australia amalgamated. Snow fell in the Mount Lofty Ranges, in the Mid North, and at Peterborough.
- 1985** The Adelaide Station and Environs Redevelopment (ASER) Property Trust continued construction on the site of the old railway station yards. The Trust is building a 400-room international hotel, a convention centre, a new office block and two parking stations. ASER is also a partner in the company which operates the casino established in the station building. Australian Formula One Grand Prix motor race (in Adelaide's East Parklands) won by Keke Rosberg of Finland, driving a 'Williams'. Bannon Government re-elected in December. State Government appointed Australia's first Commissioner for the Ageing.
- 1986** Jubilee Celebrations, commemorating the 150th Anniversary of European settlement, began on New Year's Eve. Visit of Her Majesty Queen Elizabeth II and Duke of Edinburgh. Adelaide Festival of Arts held in March. Sixth World Three Day Equestrian Event Championships held at Gawler in May. Pope John Paul II visited the State. South Australian Maritime Museum in Port Adelaide opened in December.

- 1987** The River Murray Commission replaced by the Murray Darling Commission. Entry fees to Belair and Para Vista National Parks introduced. Work commenced on the Botanical Gardens tropical conservatory. Daylight saving started one week later and finished in line with eastern States. Grand Prix held in November. Tall ships visited Port Adelaide in December en-route to Hobart. A substantial part of the submarine construction contract for RAN was awarded to South Australia.
- 1988** Large bushfire in January burnt out 70 per cent of Wilpena Pound. World Fireball Championship held at Glenelg. By-election for Federal seat of Adelaide, made vacant by resignation of Mr C. Hurford, was won by Mr M. Pratt (Liberal). The State was visited by H.R.H. Charles, Prince of Wales, and the Princess of Wales. Festival of Arts held in March. Red-light cameras installed at selected traffic light sites. Mitsubishi Motors Australia Ltd commenced exports of Magna motor car to Japan. \$2 coin issued for the first time. A Poll Merino ram sold for \$188,000, a world record price for the breed. East End Market closed down – replaced by a new market complex at Pooraka. The Australia's first hospitality industry training hotel, the College Arms, opened. Police Air Wing facility opened at Adelaide Airport.
- 1989** A new apprenticeship scheme, the Retail Traineeship Scheme, launched. Approval given for stage one of the Wilpena Pound tourist resort development in the Flinders Ranges. Construction began of a new major metropolitan hospital at Noarlunga. National Crime Authority Office opened in Adelaide. Natural gas supplied to Whyalla and the town's BHP steelworks. Highest rainfall ever in South Australia in one day (273 mm) recorded at Motpena Station near Flinders Ranges National Park. Extensive flooding in the north of the State during March. Lakes Eyre and Torrens filled, Lake Torrens for the first time this century. The Adelaide Childrens Hospital and Queen Victoria Hospital amalgamated to become the Adelaide Medical Centre for Women and Children. Australian Formula One Grand Prix won by Thierry Boutsen, driving a 'Williams'. Following the State Government election, ALP formed a minority Government with the help of two independents. Submarine fleet manufacturing facilities opened at Osborne. Botanic Gardens tropical conservatory opened in November.
- 1990** Festival of Arts held in March. Club Keno, the world's only on-line computer generated Keno game commenced. Free travel on STA scheduled services for children and students introduced. A new \$1.3 million pipe organ was unveiled in the Adelaide Town Hall. Exhibition Hall, the final stage of the Adelaide Plaza on North Terrace was opened. Adelaide recommended as a preferred site for the Multi Function Polis (MFP) by the MFP Joint Steering Committee. Department of Local Government was abolished. The five-millionth Holden rolled off Elizabeth's production line. Police introduced radar speed cameras.
- 1991** University of South Australia formed by merging of the South Australian Institute of Technology and the Magill, Salisbury and Underdale Colleges of Advanced Education. Severe hailstorm in January caused extensive property damage in many parts of the State. Electoral reform referendum held in February, approved by 89.9 per cent of voters. Dame Roma Mitchell, AC, DBE, sworn in as the State's new Governor in February. Commonwealth Government announced three cooperative research centres in the State: Tissue Growth and Repair; Soil and Land Management; and Petroleum Industry. The Flinders University of South Australia celebrated its Silver Jubilee in March. Commonwealth Government gave the final go-ahead for Australia's first Multi Function Polis. Compass Airlines commenced operating through Adelaide ending the two-airline policy in this State. New system of water and sewerage rates introduced. The \$40 million Adelaide Entertainment Centre opened in July.

## Chapter 3

# GOVERNMENT

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### 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.

#### *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

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.

**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.

### 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 referendums 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 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 Chapter 15 Public Finance.

**Commonwealth legislature**

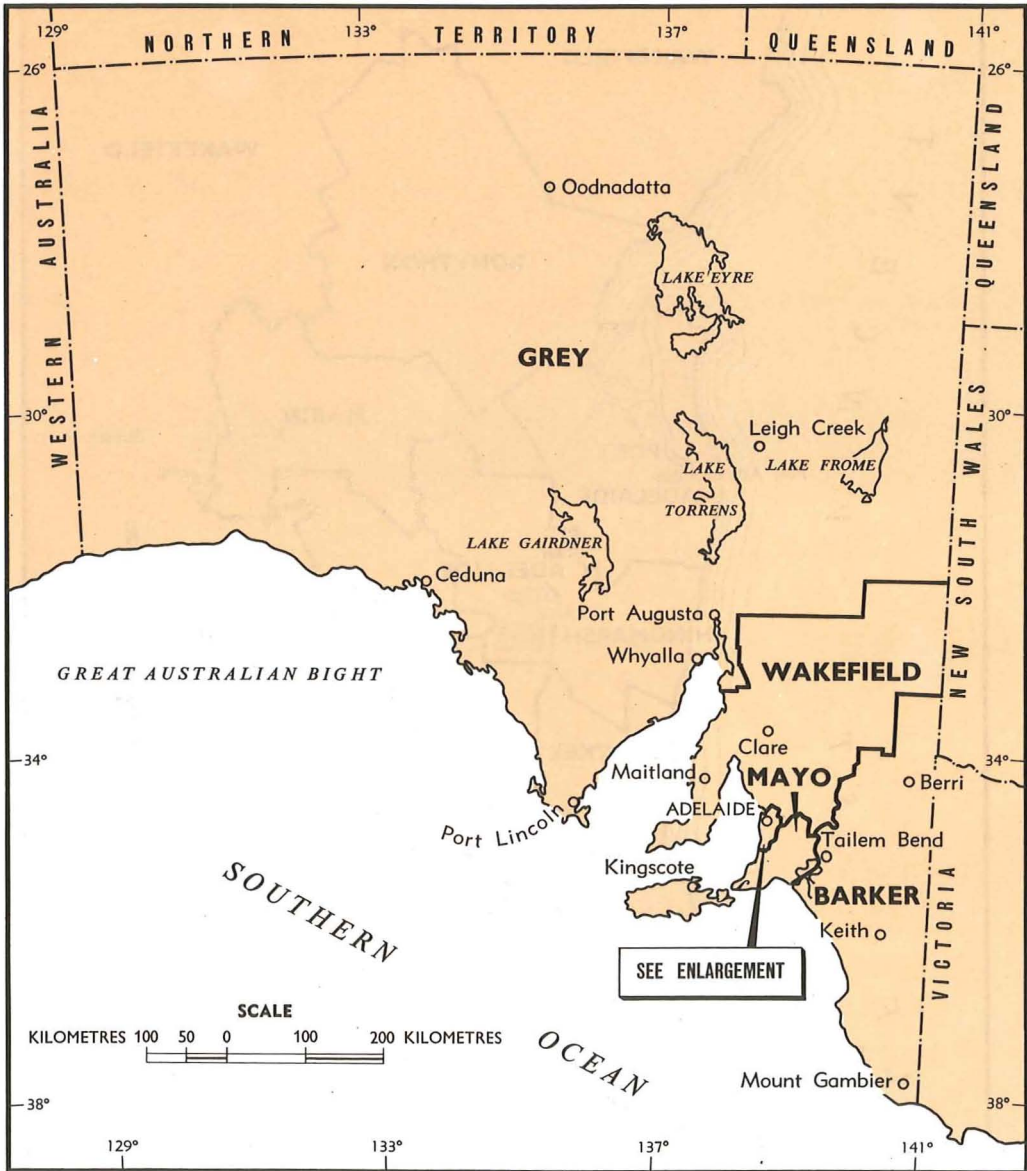
The Constitution provides that 'the legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives'. Provision for constitutional amendment includes a requirement that a proposed amendment must be submitted to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

**Franchise**

Qualifications for franchise are possessed by any Australian citizen, or any British subject who on 25 January 1984 was enrolled on a Commonwealth electoral roll. The person must be not under eighteen years of age and not disqualified on other grounds. (A person may enrol at seventeen years of age but is not entitled to vote until the eighteenth birthday). Residence in a division for a period of one month before enrolment, is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory although compulsory enrolment provisions did not apply to Aborigines before 21 February 1984.

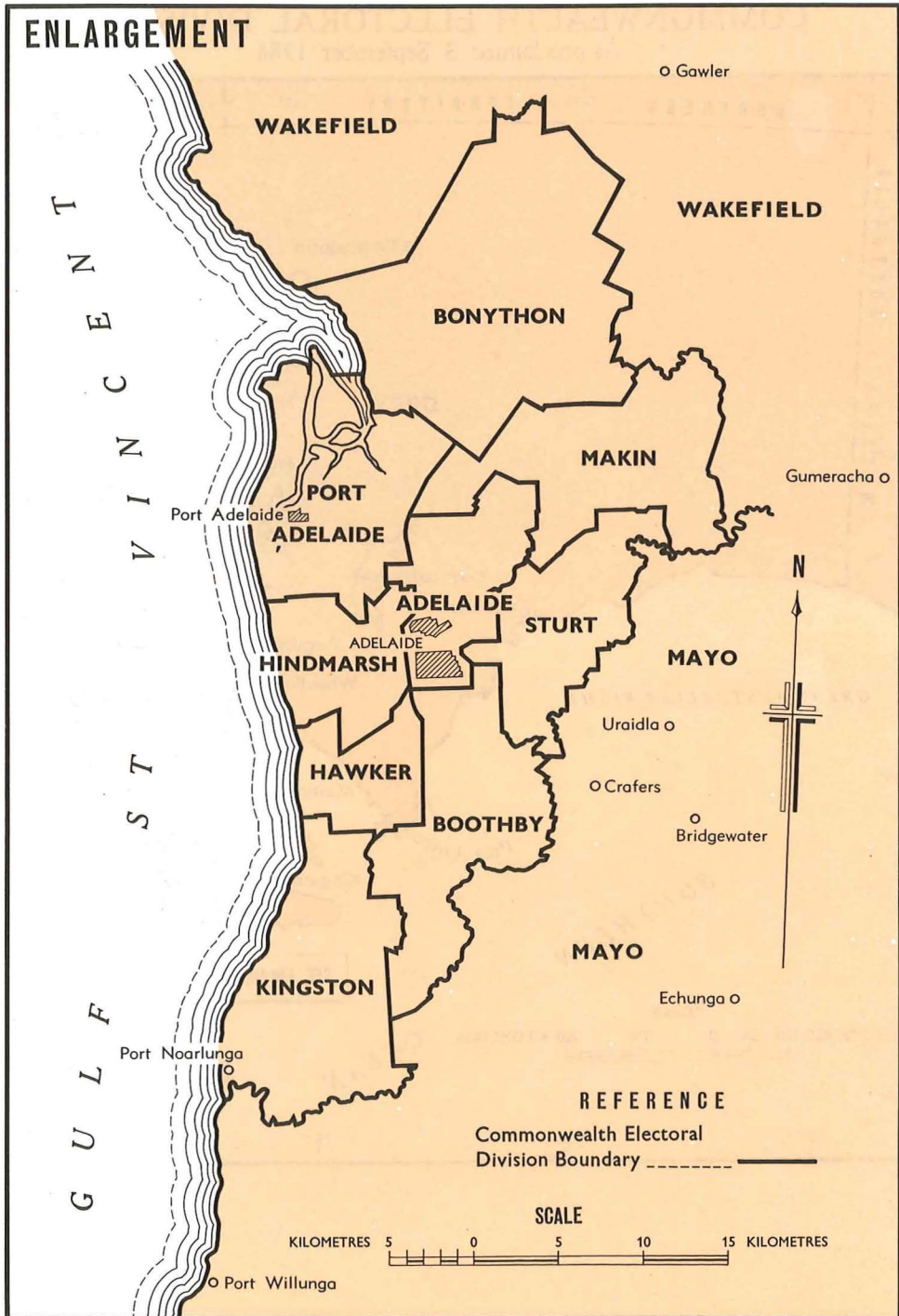
# SOUTH AUSTRALIA COMMONWEALTH ELECTORAL DIVISIONS

As proclaimed 3 September 1984



# PORTION OF SOUTH AUSTRALIA COMMONWEALTH ELECTORAL DIVISIONS

As proclaimed 3 September 1984



Persons of unsound mind, or convicted of treason or treachery and not pardoned, or convicted and under sentence for any offence punishable by imprisonment for five years or longer, or persons who are holders of temporary entry permits under the *Migration Act 1958* (Cwlth) or are prohibited non-citizens under that Act are excluded from the franchise.

### Membership

Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any qualified elector who is an Australian citizen of the full age of eighteen years.

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 16 February 1989 His Excellency the Honourable William George Hayden, AC was sworn in as the twenty-first 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.

### 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.

#### Elections for the Senate : Voting

Date of election	Electors enrolled	Votes recorded		Informal votes	
		Number	Percentage of electors enrolled	Number	Percentage of votes recorded
5 Dec. 1964 .....	551,341	528,464	95.85	39,421	7.46
25 Nov. 1967 .....	594,480	568,823	95.68	32,864	5.78
21 Nov. 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 Dec. 1975 .....	789,004	759,369	96.24	75,540	9.95
10 Dec. 1977 .....	824,205	783,669	95.08	81,451	10.39
18 Oct. 1980 .....	849,899	806,695	94.92	70,359	8.72
5 Mar. 1983 .....	880,455	836,699	95.03	73,350	8.77
1 Dec. 1984 .....	906,278	862,369	95.16	46,399	5.38
11 July 1987 .....	942,880	890,556	94.45	33,514	3.76
24 Mar. 1990 .....	966,431	931,561	96.39	23,438	2.52

**Representation**

At present the Senate consists of seventy-six members, twelve 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 1983, which was effective for the 1984 elections, the number was raised to twelve. By the *Senate (Representation of Territories) Act 1973* (Cwlth), two Senators were added 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. Six Senators from each State and all Territory Senators retire every three years.

The members representing South Australia in the Senate are:

*To Retire 30 June 1993:*

Foreman, Dominic (ALP)  
Olsen, John (LP)  
Lees, Meg (AD)  
Bolkus, Nick (ALP)  
Vanstone, Amanda (LP)  
Maguire, Graham (ALP)

*To Retire 30 June 1996:*

Hill, Robert (LP)  
Crowley, Rosemary (ALP)  
Coulter, John (AD)  
Teague, Baden (LP)  
Schacht, Chris (ALP)  
Chapman, Grant (LP)

**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.

**Elections for the House of Representatives : Voting**

<i>Date of election</i>	<i>Electors enrolled</i>	<i>Votes recorded</i>		<i>Informal votes</i>	
		<i>Number</i>	<i>Percentage of electors enrolled</i>	<i>Number</i>	<i>Percentage of votes recorded</i>
26 Nov. 1966	585,465	563,341	96.22	16,220	2.88
25 Oct. 1969	624,626	599,719	96.01	20,562	3.43
2 Dec. 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 Dec. 1975	789,004	759,369	96.24	18,201	2.40
10 Dec. 1977	824,205	783,669	95.08	26,461	3.38
18 Oct. 1980	849,899	806,695	94.92	22,491	2.79
5 Mar. 1983	880,455	836,699	95.03	22,380	2.67
1 Dec. 1984	906,278	859,629	94.85	74,719	8.69
11 July 1987	942,880	884,418	93.80	60,536	6.84
24 Mar. 1990	966,431	927,897	96.01	34,143	3.68



House of Representatives, 1990 Election  
Voting and Party Representation in South Australian Electorates

Electorate	Electors on roll	Electors voting	Successful candidates		First preference votes
			Name	Party	
Adelaide .....	73,864	70,444	Catley, R.	ALP	26,953
Barker .....	72,885	70,363	McLachlan, I.M.	LP	39,470
Bonython .....	76,360	73,293	Blewett, N.	ALP	36,326
Boothby .....	74,981	71,686	Hall, S.	LP	36,010
Grey .....	69,708	66,309	O'Neil, L.	ALP	30,600
Hawker .....	71,020	68,066	Gallus, C.	LP	28,348
Hindmarsh .....	73,406	70,192	Scott, J.	ALP	29,212
Kingston .....	75,823	73,222	Bilney, G.	ALP	26,206
Makin .....	75,053	72,653	Duncan, P.	ALP	27,462
Mayo .....	79,754	76,734	Downer, A.J.G.	LP	39,037
Port Adelaide ..	73,811	70,875	Sawford, R.	ALP	36,186
Sturt .....	72,511	69,569	Wilson, I.B.C.	LP	33,129
Wakefield .....	77,255	74,491	Andrew, N.	LP	40,216

### 3.3 GOVERNMENT OF SOUTH AUSTRALIA

The *Constitution Act 1855*, 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

The honourable Dame Roma Mitchell, AC, DBE, was sworn in as the Queen's representative in South Australia on 6 February 1991.

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. The amount appropriated from Consolidated Revenue for the Governor's salary and allowances for 1989–90 was \$148,100. The *Governors' Pensions Act 1976* provides for a pension to be paid to former Governors and to the spouses of deceased Governors.

## Governors of South Australia

<i>Name</i>	<i>Term of Office</i>	
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	30 November 1976
Sir Douglas R. Nicholls, KCVO, OBE	1 December 1976	30 April 1977
Sir Keith D. Seaman, KCVO, OBE	1 September 1977	28 March 1982
Lt-Gen. Sir Donald B. Dunstan, KBE, CB	23 April 1982	5 February 1991
The Hon. Dame Roma Mitchell, AC, DBE	6 February 1991	

A Governor is normally appointed for a term of five years, but can be reappointed for one or more subsequent terms.

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.

### Cabinet and Executive Government

In South Australia every Minister must be a member of either the Legislative Council or the House of Assembly. 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 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; 1975, twelve and 1978, thirteen. 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.

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-nine persons have held the office of Premier.

#### Premiers of South Australia

Names	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;		
Hon. Arthur Blyth .....	22/1/1872 – 22/7/1873; 4/8/1864 – 22/3/1865; 10/11/1871 – 22/1/1872;	4	35
Hon. John Hart, CMG .....	22/7/1873 – 3/6/1875; 23/10/1865 – 28/3/1866; 24/9/1868 – 13/10/1868;	2	254
Hon. James P. Boucaut, QC .....	30/5/1870 – 10/11/1871; 28/3/1866 – 3/5/1867; 3/6/1875 – 6/6/1876;	1	339
Hon. H.B. Strangways .....	26/10/1877 – 27/9/1878	3	11
Hon. John Colton .....	3/11/1868 – 30/5/1870; 6/6/1876 – 26/10/1877;	1	208
Hon. William Morgan .....	16/6/1884 – 16/6/1885	2	142
Hon. John C. Bray .....	27/9/1878 – 24/6/1881	2	270
Hon. Sir J.W. Downer, KCMG, QC ..	24/6/1881 – 16/6/1884	2	358
Hon. Thomas Playford .....	16/6/1885 – 11/6/1887; 15/10/1892 – 16/6/1893	2	239
Hon. J.A. Cockburn .....	11/6/1887 – 27/6/1889; 19/8/1890 – 21/6/1892	3	323
Hon. F.W. Holder .....	27/6/1889 – 19/8/1890	1	53
Rt Hon. C.C. Kingston, QC .....	21/6/1892 – 15/10/1892; 8/12/1899 – 15/5/1901	1	274
Hon. V.L. Solomon .....	16/6/1893 – 1/12/1899	6	168
Hon. J.G. Jenkins .....	1/12/1899 – 8/12/1899	–	7
Hon. Richard Butler .....	15/5/1901 – 1/3/1905	3	290
Hon. Thomas Price .....	1/3/1905 – 26/7/1905	–	147
Hon. A.H. Peake .....	26/7/1905 – 5/6/1909	3	314
.....	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

Premiers of South Australia (*continued*)

Names	Dates of Office	Total period in Office	
		Years	Days
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 – 15/2/1979	9	210
Hon. R.S. Hall .....	17/4/1968 – 2/6/1970	2	47
Hon. J.D. Corcoran .....	15/2/1979 – 18/9/1979	–	216
Hon. D.O. Tonkin .....	18/9/1979 – 10/11/1982	3	49
Hon. J.C. Bannon .....	10/11/1982	–	

## 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
1978–79 .....	13/7/78 – 1/3/79	55
1979 .....	24/5/79 – 22/8/79	11
1979–80 .....	11/10/79 – 12/6/80	35
1980–81 .....	31/7/80 – 11/6/81	56
1981–82 .....	16/7/81 – 18/6/82	68
1982 .....	20/7/82 – 14/10/82	27
1982–83 .....	8/12/82 – 2/6/83	26
1983–84 .....	4/8/83 – 10/5/84	56
1984–85 .....	2/8/84 – 16/5/85	60
1985 .....	1/8/85 – 7/11/85	31
1986 .....	11/2/86 – 25/3/86	12
1986–87 .....	31/7/86 – 14/4/87	57
1987–88 .....	6/8/87 – 14/4/88	55
1988–89 .....	4/8/88 – 13/4/89	48
1989 .....	3/8/89 – 19/10/89	24
1990 .....	8/2/90 – 11/4/90	21
1990–91 .....	2/8/90 – 11/4/91	56

## 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.

The members of the Legislative Council are elected through a system of proportional representation with the whole of the State as a single multi-member electoral district.

*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 certain government contracts, occupants of certain offices of profit under the Crown, and persons of unsound mind. Other requirements applicable only to one House or the other are mentioned on page 33. 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 33. 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.

*Numbers 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.

Members and Electorates

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
1979 .....	22	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 of either House, may be passed by a simple majority of the votes of the members present.

An alteration to the Constitution of either House 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 Legislative Council to pass the same (or substantially the same) Bill during two consecutive Parliaments, provided that a general election for the House of Assembly has been held between the refusals and that on the second occasion an absolute majority of all the members of the House of Assembly voted in favour of the Bill at its second and third readings. In the event of a deadlock between the Houses, the Governor may proclaim the dissolution of both Houses.

### Life of Parliament

Term of office of each Parliament is four years from the day on which it first meets for the dispatch of business and it may not be prorogued or dissolved by the Governor before the expiration of three years from the day it first met unless the House passes a motion of no confidence in the Government, a Bill of 'special importance' is rejected by the Legislative Council or, the Governor is acting in the settlement of a deadlock.

### 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  
(\$'000)

Particulars	1985-86	1986-87	1987-88	1988-89	1989-90
Governor's establishment . . . . .	1,008	917	1,138	1,019	1,030
Ministry . . . . .	1,107	1,187	1,196	1,293	1,318
Parliament:					
Legislative Council (a) . . . . .	1,790	1,879	2,210	3,056	3,059
House of Assembly (a) . . . . .	3,635	3,787	4,548	6,066	6,029
Other (b) . . . . .	9,158	9,942	10,920	8,350	11,395
Total Parliament . . . . .	14,583	15,608	20,013	19,783	20,484
Electoral . . . . .	940	2,921	961	1,519	4,171
Royal Commissions, Select Committees etc. . . . .	128	128	159	231	179
<b>Total . . . . .</b>	<b>19,748</b>	<b>18,832</b>	<b>21,147</b>	<b>21,532</b>	<b>27,181</b>

(a) Allowances to members, travelling and other expenses.

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

### Legislative Council

#### Members and electorates

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 did 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 15 September 1979, eleven members were elected to the Legislative Council and at present there are twenty-two members in this House. Casual vacancies are filled by persons chosen at a joint sitting of the members of the Legislative Council and House of Assembly.

**Franchise**

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. Qualifications for House of Assembly electors are discussed below.

**President**

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

**House of  
Assembly**

**Seat of  
Government**

The Government of the day holds its position as such only so long as it controls a majority in the House of Assembly. 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**

An Australian citizen, or a British subject who was enrolled on a Commonwealth electoral roll and/or at some time between 26 October 1983 and 25 January 1984 was enrolled on an electoral roll for a South Australian Assembly district or a Commonwealth electoral roll in any State, and at least eighteen years of age who has lived in a Subdivision for at least one month immediately preceding the date of his or her claim for enrolment 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*.

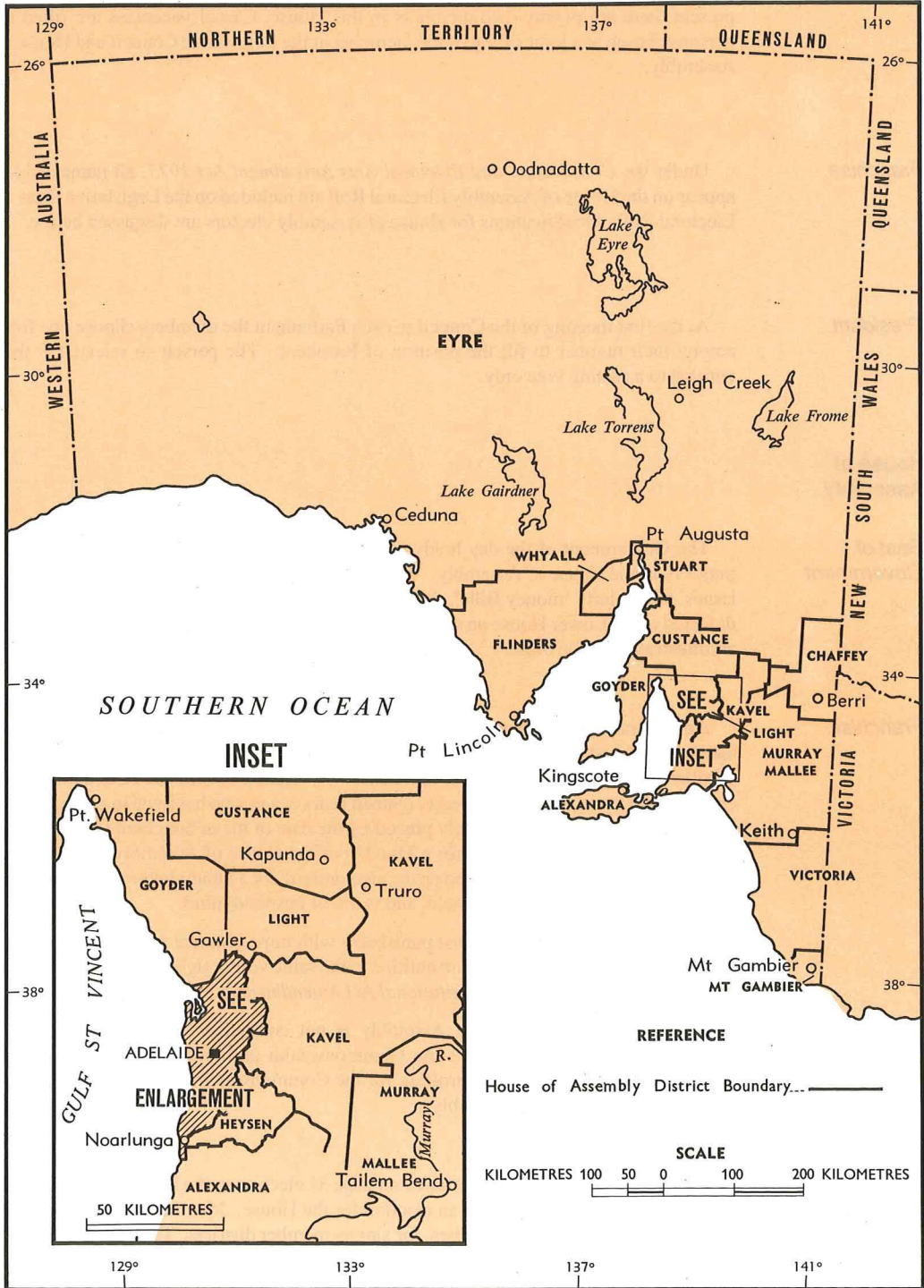
Enrolment for the House of Assembly is not compulsory but in practice, as a consequence of the operation of the Commonwealth and House of Assembly Joint Electoral Rolls, most persons enrolling for the Commonwealth Electoral Roll are also enrolled for the House of Assembly.

**Membership**

Subject to the exclusions mentioned on page 31 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 four 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

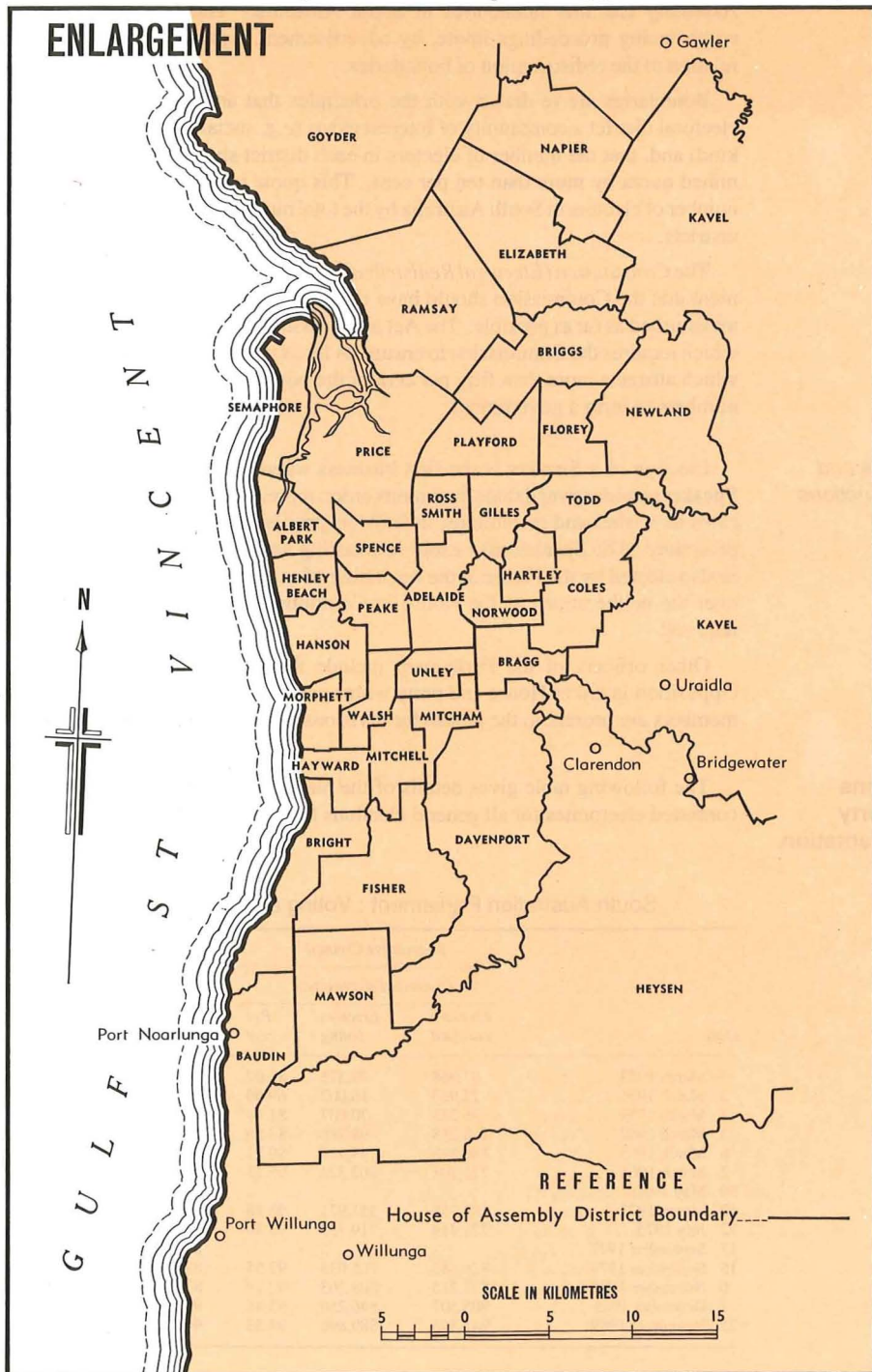
Operative from 22 September 1983





# PORTION OF SOUTH AUSTRALIA SOUTH AUSTRALIAN ELECTORAL DISTRICTS

Operative from 22 September 1983



**Electoral boundaries**

The Electoral Districts Boundaries Commission, established under the *Constitution Act 1934*, comprises a Judge of the Supreme Court, the Electoral Commissioner and the Surveyor-General and is responsible for making periodical adjustments to House of Assembly electoral boundaries in South Australia. The Commission must, before commencing proceedings invite, by advertisement, representations by any person in relation to the redistribution of boundaries.

Boundaries are re-drawn with the principles that amongst the population of each electoral district a community of interest exists (*e.g.* social, economic, regional or other kind) and, that the number of electors in each district should not vary from a predetermined quota by more than ten per cent. This quota is calculated by dividing the total number of electors in South Australia by the total number of House of Assembly electoral districts.

The *Constitution (Electoral Redistribution) Amendment Act 1991*, removed a requirement that the Commission should have regard to the desirability of leaving boundaries undisturbed as far as possible. The Act also provides a new criterion for electoral fairness which requires the Commission to ensure, as far as practicable, that a group of candidates which attracts more than fifty per cent of the popular vote will be elected in sufficient numbers to form a government.

**Officers and their functions**

Election of a Speaker is the first business when a new Parliament first meets. The Speaker 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. A Chairman of Committees is also elected by the House at the beginning of each Parliament; the Chairman 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 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 enrolled and voting in contested electorates for all general elections from 1953 to 1989.

South Australian Parliament : Voting at Elections, 1953 to 1989

Date	Legislative Council			House of Assembly		
	Contested electorates			Contested electorates		
	Electors enrolled	Electors voting	Per cent	Electors enrolled	Electors voting	Per cent
7 March 1953	97,968	79,373	81.02	354,273	336,529	95.00
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	603,952	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
15 September 1979	826,586	765,033	92.55	826,586	768,985	93.03
6 November 1982	871,215	808,363	92.79	871,215	811,758	93.18
7 December 1985	905,507	846,250	93.46	905,507	846,289	93.46
25 November 1989	941,368	889,896	94.53	941,368	888,918	94.43

The following table shows the Party representation in both Houses of the South Australian Parliament resulting from each general election from 1953.

## South Australian Parliament : Party Representation at Elections, 1953 to 1989

Date	Legislative Council			House of Assembly		
	ALP	LP	Other	ALP	LP	Other
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	2
15 September 1979 ....	10	11	1	19	25	3
6 November 1982 ....	9	11	2	24	21	2
7 December 1985 .....	10	10	2	27	16	4
25 November 1989 ....	10	10	(a)2	22	22	(b)3

(a) Australian Democrats. (b) 1 National Party, 2 Independent Labor.  
ALP Australian Labor Party LP Liberal Party of Australia

At the general election held on 25 November 1989 there were forty-seven electorates represented in the House of Assembly. The table which follows shows the electoral returns for that general election.

## House of Assembly : Party Representation, 1989

Electorate	Electors on roll	Electors voting	Name	Successful candidate	
				Party	First preference votes
Adelaide .....	18,802	17,393	Armitage, M.	LP	8,290
Albert Park ....	21,304	20,190	Hamilton, K.	ALP	10,572
Alexandra .....	22,125	21,055	Chapman, T.	LP	12,200
Baudin .....	22,364	21,009	Hopgood, D.	ALP	9,809
Bragg .....	19,907	18,473	Ingerson, G.	LP	11,585
Briggs .....	19,817	18,770	Rann, M.	ALP	10,112
Bright .....	21,192	20,304	Matthew, W.	LP	8,911
Chaffey .....	20,465	18,821	Arnold, P.	LP	10,716
Coles .....	18,639	17,753	Cashmore, J.	LP	9,851
Custance .....	18,461	17,545	Olsen, J.	LP	10,525
Davenport .....	19,508	18,460	Evans, S.	LP	10,146
Elizabeth .....	16,299	15,337	Evans, M.	IND.LABOR	5,884
Eyre .....	18,106	16,141	Gunn, G.	LP	9,745
Fisher .....	26,817	25,674	Such, B.	LP	11,653
Flinders .....	18,316	17,338	Blacker, P.	NP	8,241
Florey .....	23,348	22,327	Gregory, B.	ALP	9,591
Gilles .....	17,834	16,993	McKee, C.	ALP	8,177
Goyder .....	21,774	20,823	Meier, J.	LP	12,641
Hanson .....	18,977	17,847	Becker, H.	LP	9,130
Hartley .....	19,281	18,204	Groom, T.	ALP	8,371
Hayward .....	17,920	17,099	Brindal, M.	LP	7,266
Henley Beach ..	20,334	19,316	Ferguson, D.	ALP	9,040
Heysen .....	21,163	19,961	Wotton, D.	LP	11,162
Kavel .....	22,164	21,179	Goldsworthy, R.	LP	11,560
Light .....	21,909	21,012	Eastick, R.	LP	10,912
Mawson .....	22,884	21,710	Lenehan, S.	ALP	10,484
Mitcham .....	19,537	18,212	Baker, S.	LP	9,883

## House of Assembly : Party Representation, 1989 (continued)

Electorate	Electors on roll	Electors voting	Successful candidate		First preference votes
			Name	Party	
Mitchell . . . . .	18,576	17,570	Holloway, P.	ALP	8,187
Morphett . . . . .	18,509	17,323	Oswald, J.	LP	9,364
Mount Gambier . . . . .	19,685	18,673	Allison, H.	LP	12,394
Murray Mallee . . . . .	19,977	18,987	Lewis, P.	LP	11,774
Napier . . . . .	19,075	17,858	Hemmings, T.	ALP	10,300
Newland . . . . .	22,208	21,295	Kotz, D.	LP	8,989
Norwood . . . . .	18,772	17,476	Crafter, G.	ALP	7,499
Peake . . . . .	19,533	18,267	Heron, V.	ALP	8,965
Playford . . . . .	19,626	18,609	Quirke, J.	ALP	9,244
Price . . . . .	19,836	18,701	De Laine, M.	ALP	10,813
Ramsay . . . . .	24,328	22,988	Arnold, L.	ALP	13,369
Ross Smith . . . . .	18,354	17,327	Bannon, J.	ALP	9,902
Semaphore . . . . .	19,603	18,525	Peterson, N.	IND.LABOR	7,210
Spence . . . . .	19,985	18,762	Atkinson, M.	ALP	9,762
Stuart . . . . .	19,153	18,007	Hutchison, C.	ALP	8,573
Todd . . . . .	20,293	19,428	Klunder, J.	ALP	8,822
Unley . . . . .	19,254	17,858	Mayes, K.	ALP	7,662
Victoria . . . . .	20,125	19,061	Baker, D.	LP	12,892
Walsh . . . . .	18,480	17,461	Trainer, J.	ALP	8,520
Whyalla . . . . .	16,749	15,748	Blevins, F.	ALP	7,806

ALP Australian Labor Party LP Liberal Party of Australia NP National Party  
IND.LABOR Independent Labor

By-election for the seat of Custance in June 1990, made vacant by the resignation of Mr J. Olsen, was won by Mr I. Venning (Liberal).

The members of the Legislative Council at 16 October 1990 were as follows:

Bruce, Hon. G.L. (ALP)	Levy, Hon. J.A.W. (ALP)
Burdett, Hon. J.C. (LP)	Lucas, Hon. R.I. (LP)
Crothers, Hon. T. (ALP)	Pfifzner, Hon. B. (LP)
Davis, Hon. L.H. (LP)	Pickles, Hon. C.A. (ALP)
Dunn, Hon. H.P.K. (LP)	Ritson, Hon. R.J. (LP)
Elliott, Hon. M.J. (AD)	Roberts, Hon. R.R. (ALP)
Feleppa, Hon. M.S. (ALP)	Roberts, Hon. T.G. (ALP)
Gilfillan, Hon. I. (AD)	Stefani, Hon. J.F. (LP)
Griffin, Hon. K.T. (LP)	Sumner, Hon. C.J. (ALP)
Irwin, Hon. J.C. (ALP)	Weatherill, Hon. G. (ALP)
Laidlaw, Hon. D.V. (LP)	Wiese, Hon. B.J. (ALP)

## Referendums

Since the inception of responsible government in South Australia in 1856 nine referendums have been held – the first in 1896 and subsequent ones in 1898, 1899, 1911, 1915, 1965, 1970, 1982 and 1991 – and twelve 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; one related to extended shopping hours in the metropolitan area (1970) – not approved; and one related to daylight saving (1982) – approved. The last referendum, held on 9 February 1991, asked House of Assembly electors 'Do you approve the *Constitution (Electoral Redistribution) Amendment Bill 1991?*'. Of the 882,650 who voted, 649,906 voted 'Yes' and 197,244 voted 'No'.

**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 cooperation 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.

**State emblems**

The State Coat of Arms gazetted on 19 April 1984 replaced an earlier Coat of Arms conferred by King George V in 1936.

The State Flag, which is flown from Government buildings, comprises the Blue Ensign with the State Badge in the fly. The State Badge is a drawing of a Piping Shrike or White Backed Magpie (*Gymnorhina tibicen leuconota*) standing on a staff of a gum tree.

On 23 November 1964, the Government adopted Sturt's Desert Pea (*Clianthus formosus*) as the Floral Emblem of South Australia and the Hairy-Nosed or Plains Wombat (*Lasiornhinus latifrons*) was adopted as the faunal emblem of the State on 27 August 1970.

Opal was adopted as the gemstone emblem on 15 August 1985.

The official colours of South Australia are Red, Blue and Gold.

**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.

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 AUTHORITIES**

At 30 June 1991, there were 120 local government authorities in South Australia. Each local government area is controlled by a Council consisting of members elected by residents and property owners and exercising powers under the *Local Government Act 1934*.

While around 99 per cent of the State's population resides within the 121 incorporated areas, only 15 per cent of the State is covered by them – the remaining parts are served by the Outback Areas Community Development Trust.

**Boundaries**

Local government areas are defined by proclaimed boundaries. The *Local Government Act 1934* stipulates that a change to boundaries can be made in the form of a proposal initiated by the Minister of Local Government, a Council or 20 per cent of the electors in the area or portion of the area affected by the proposal. The proposal is reviewed by the Local Government Advisory Commission which undertakes enquiries and hearings into the subject and makes recommendations to the Minister. The major area of concern to local government bodies involves wards which are also defined by proclamation and all except 22 local government areas contain wards which are primarily electoral districts. The ward boundary is subject to a periodical review within a time constraint of seven years to ensure that electors are adequately and fairly represented.

**Functions**

The *Local Government Act 1934* prescribes most of the powers and authorities which each council exercises in 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 with the area concerned, but there are general functions which are common to them all *e.g.* road construction and maintenance, health services and Local Boards of Health, libraries, provision of street lighting, the maintenance of cemeteries, foreshores and jetties, the control of the location of industries, the prevention of fires within certain areas, and the policing of provisions relating to vermin and weeds.

**Membership**

The Local Government electorate is represented by a membership which comprises a mayor or chairman, aldermen and councillors. The mayor or chairman is the principal member of the Council. A mayor is elected by the area as a whole while the chairman is chosen from among the members of the council. The mayor of the City of Adelaide is entitled to be called Lord Mayor. Aldermen are the representatives of the area as a whole and there may not be more aldermen than half the number of councillors. Councillors are elected by the electors of the area as representatives of the area as a whole where there are no wards and in the case where wards exist, by the electors of those individual wards as ward representatives. No ward may have more than four councillors.

A person is eligible to nominate for local government office if he is an elector for the area, provided that he is not an undischarged bankrupt, liable to imprisonment, disqualified from holding public office, or an officer or employee of the council. Furthermore, members of other councils and persons who have nominated for offices in other councils are ineligible. A person elected to the office of mayor or alderman must have been a member of a council for at least twelve months.

A member of a council receives an annual allowance for expenses and reimbursement of other prescribed expenses. The allowances are fixed at the first meeting after an election and may not be less than \$300 per annum or more than \$1,680 per annum.

A person, of or above the age of majority, may vote if he is an elector in the area for the House of Assembly, he lives in the area and has lodged a declaration with the council, or he is a ratepayer by virtue of being the sole owner or occupier of rateable property. A body corporate may be enrolled as an elector if it is a ratepayer by virtue of being the sole owner of rateable property.

A council must hold at least one ordinary meeting in each month. The meeting in a municipality must not be held before 5 p.m. unless the council resolves unanimously to meet before that time.

## Chapter 4

# POPULATION

### 4.1 POPULATION ESTIMATES AND PROJECTIONS

Methods of estimating the population in a given area depend on the use to which such measures are to be put and the availability of information on which to base those estimates. Before 1971, the main measure of the population of South Australia was the census count. Since 1971, figures have been compiled on the basis of the estimated resident population of the State. The estimated resident population for Census dates is derived by adding estimates of Australians temporarily overseas and estimates of census under-enumeration to the count of persons at their usual place of residence.

Measures of the estimated mean (average) resident population for a period are generally used when calculating rates (*e.g.* crude birth rates) for a period. Projections of estimates of future populations are based on sets of assumptions about population trends, and are important in forecasting and planning.

The following table shows the number of persons in South Australia as counted by censuses to 1966 and the estimated resident population at census dates from 1971.

Census date	Males	Females	Persons	Average annual increase	
				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 .....	490,225	479,115	969,340	24,607	3.09
1966 30 June .....	550,196	544,788	1,094,984	25,129	2.59
1971 30 June (b) .....	597,572	602,542	1,200,114	..	..
1976 30 June .....	635,152	638,918	1,274,070	14,791	1.23
1981 30 June .....	653,940	664,829	1,318,769	8,940	0.70
1986 30 June .....	687,764	694,786	1,382,550	12,756	0.97

(a) Excludes full-blood Aborigines before the 1966 Census. (b) Estimated resident population from 1971.

The count of persons in South Australia (excluding Aborigines) had reached 17,366 persons at the first census on 26 February 1844. In 1861, twenty-five years after the first settlers arrived, the count was 126,830 and this figure had more than doubled by the Census in 1881. By 1921 the census counted almost half a million persons and the

population of South Australia was estimated to have reached a million in January 1963. The population at 30 June 1986 was estimated to be 1,382,550 persons. Population projections indicate that South Australia's population will reach one and a half million in the mid-1990s.

Between population censuses the number of persons is estimated by adding to the Census estimated resident population the recorded natural increase, net overseas migration gain and interstate movement involving a change in usual residence. The estimated resident population for South Australia at 30 June 1990 was 716,800 males, 722,400 females and 1,439,100 persons.

#### Increases in the Estimated Resident Population

<i>Year ended 30 June</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Natural increase</i>	<i>Total increase</i>	<i>Rate of growth</i>
1985 .....	681,200	690,000	1,371,200	9,697	11,709	0.82
1986 .....	687,800	694,800	1,382,600	9,230	12,897	0.83
1987 .....	693,700	700,400	1,394,200	9,035	11,604	0.84
1988 .....	700,600	707,600	1,408,300	8,490	14,101	1.01
1989 .....	709,100	715,500	1,424,600	8,663	16,392	1.16
1990 .....	716,800	722,400	1,439,100	8,281	14,474	1.02

The estimated mean resident population for South Australia is calculated for the years ended 30 June and 31 December and these estimates are shown below.

#### Estimated Mean Resident Population

<i>Year</i>	<i>Year ended 30 June</i>			<i>Year ended 31 December</i>		
	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
1985 .....	678,200	687,400	1,365,600	681,100	689,900	1,371,100
1986 .....	684,400	692,400	1,376,800	687,800	695,000	1,382,700
1987 .....	690,700	697,600	1,388,300	693,800	700,700	1,394,500
1988 .....	697,200	704,200	1,401,400	700,900	707,900	1,408,800
1989 .....	705,200	711,800	1,417,000	709,100	715,500	1,424,700
1990 .....	712,900	719,000	1,431,900	p717,000	p722,700	p1,439,700

The following table of intercensal population growth rates shows the effects of some important aspects of the development of the State, namely:

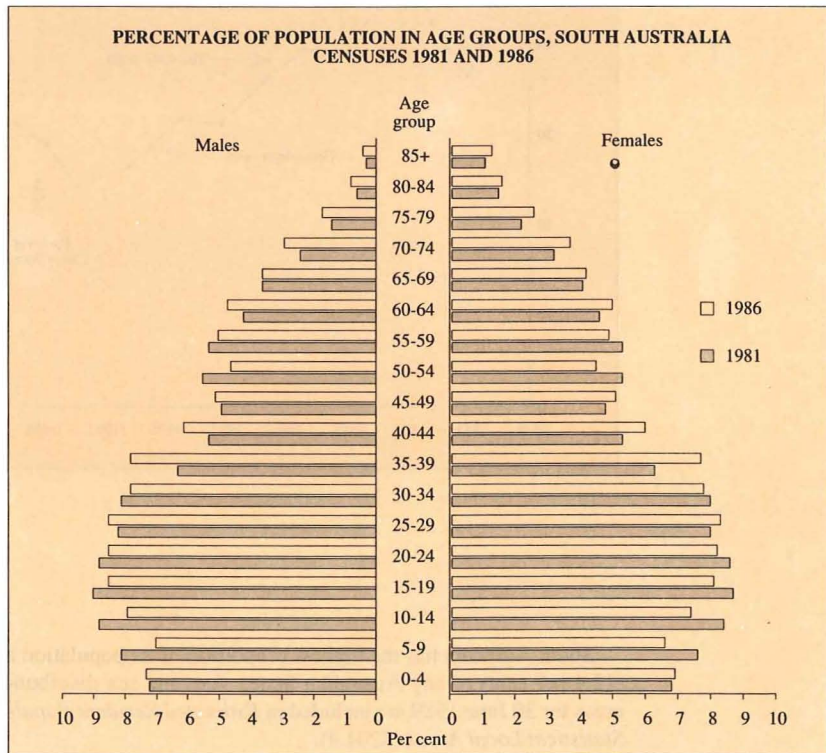
- (a) the net migration, especially of males, away from South Australia following the mineral discoveries in other States in the 1880s and early 1890s;
- (b) the slow growth during the economic depression of the 1930s when natural increase fell to a particularly low level; and
- (c) the high rate of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

The State's rate of population increase was slower than the Australian rate in every period from 1881 to 1947. From 1947 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 been generally below the Australian rate.



Intercensal Compound Annual Population Growth Rates  
South Australia and Australia, 1861-1986

Period	Per cent growth rate per annum	
	South Australia	Australia
1861-71	3.72	3.70
1871-81	4.25	3.08
1881-91	1.25	3.51
1891-1901	1.02	1.80
1901-11	1.55	1.63
1911-21	1.81	2.03
1921-33	0.76	1.85
1933-47	0.76	0.85
1947-54	3.05	2.46
1954-61	2.83	2.26
1961-66	2.42	1.91
1966-71	1.35	1.86
1971-76	1.18	1.21
1976-81	0.64	1.47
1981-86	0.93	1.37



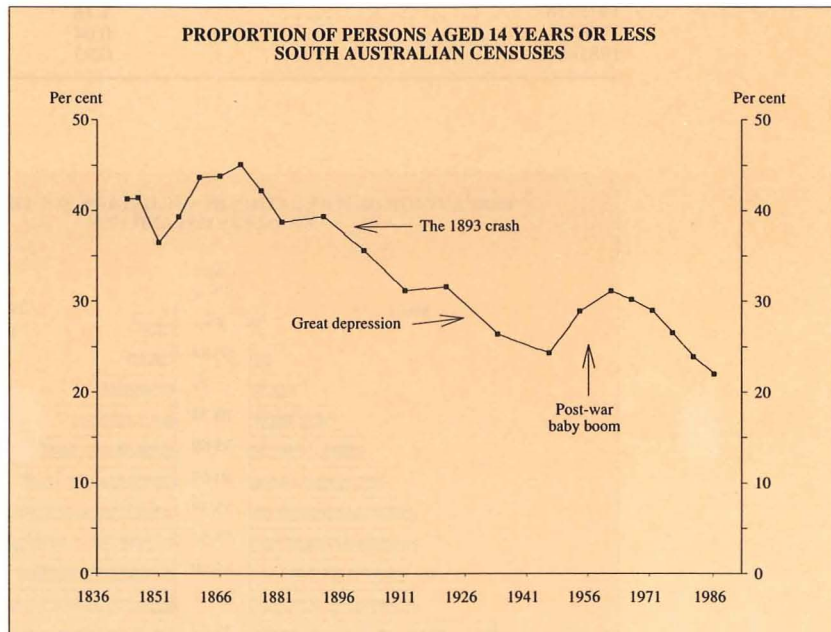
**Age distribution**

Details of the age distribution of the population are of particular importance because they reveal changes which have occurred over time in the age structure and supply basic material for the calculation of fertility, mortality and annuity rates and the probabilities of survival.

Changes in the age distribution of the estimated resident population between the 1981 and 1986 Censuses are shown in the diagram on the previous page. Large absolute changes in population between the 1981 and 1986 Census estimated resident population occurred in the age groups 35–39, 40–44 and 60–64 which increased by 23,994, 13,821 and 9,264 respectively, as well as in the age group 5–9 which fell by 9,571.

The median age (*i.e.* the age at which exactly half the population are younger and half older) of the resident population of South Australia at the 1971 Census was 27.5 years, rising to 28.7 years at 30 June 1976. The figure for 30 June 1986 was 32.0 years (males 31.1 and females 32.9), the highest of any Australian State.

The next diagram shows the fluctuations over time in the population aged 14 years or less in South Australia.



South Australia has the highest proportion of its population aged 65 years and over (12.4 per cent) of any Australian State. Age and sex distributions for statistical local areas for 30 June 1989 are included in *Estimated Resident Population by Age and Sex in Statistical Local Areas* (3204.4).

### Geographical distribution

The Australian Standard Geographical Classification divides the State into seven statistical divisions. Each of these is further divided into statistical subdivisions which consist of a number of statistical local areas. In South Australia the statistical local areas are the same as local government areas with the exception of the local government area of Enfield which is divided into two statistical local areas. Estimated resident populations for these areas are prepared annually.

The estimated resident population of statistical divisions and subdivisions at 30 June 1981, 1986 and 1990 are shown in the following table.

Estimated Resident Population of Statistical Divisions  
and Subdivisions<sup>(a)</sup>

<i>Statistical Division and Subdivision</i>	<i>Persons at 30 June</i>		
	<i>1981</i>	<i>1986</i>	<i>1990</i>
<b>Adelaide:</b>			
Northern .....	276,720	295,740	316,550
Western .....	212,220	214,100	215,910
Eastern .....	210,560	214,560	218,370
Southern .....	254,200	279,400	299,040
<i>Total Adelaide</i> .....	<i>953,700</i>	<i>1,003,800</i>	<i>1,049,870</i>
<b>Outer Adelaide:</b>			
Barossa .....	29,330	33,570	37,600
Kangaroo Island .....	3,720	4,200	4,330
Onkaparinga .....	19,230	22,810	25,460
Fleurieu .....	17,560	21,320	23,680
<i>Total Outer Adelaide</i> .....	<i>69,840</i>	<i>81,890</i>	<i>91,060</i>
<b>Yorke and Lower North:</b>			
Yorke .....	22,200	23,740	23,990
Lower North .....	19,000	19,320	19,400
<i>Total Yorke and Lower North</i> ...	<i>41,200</i>	<i>43,070</i>	<i>43,390</i>
<b>Murray Lands:</b>			
Riverland .....	32,780	34,090	35,770
Murray Mallee .....	30,480	31,430	32,060
<i>Total Murray Lands</i> .....	<i>63,270</i>	<i>65,520</i>	<i>67,840</i>
<b>South East:</b>			
Upper South East .....	19,570	19,670	19,390
Lower South East .....	42,060	43,220	43,600
<i>Total South East</i> .....	<i>61,630</i>	<i>62,890</i>	<i>62,990</i>
<b>Eyre:</b>			
Lincoln .....	27,410	28,050	27,270
West Coast .....	7,040	6,880	6,510
<i>Total Eyre</i> .....	<i>34,450</i>	<i>34,940</i>	<i>33,780</i>
<b>Northern:</b>			
Whyalla .....	32,650	28,820	27,020
Pirie .....	29,650	28,520	28,030
Flinders Ranges .....	24,200	24,400	23,950
Far North .....	8,180	8,700	11,220
<i>Total Northern</i> .....	<i>94,690</i>	<i>90,440</i>	<i>90,220</i>
<b>Total State</b> .....	<b>1,318,770</b>	<b>1,382,550</b>	<b>1,439,160</b>

(a) Some boundaries have been adjusted because of local government area boundary changes. See *Estimated Resident Population in Statistical Local Areas* (3201.4).

The following table shows the estimated resident population in statistical local areas in the Adelaide Statistical Division.

**Estimated Resident Population in Statistical Local Areas  
Adelaide Statistical Division<sup>(a)</sup>**

<i>STATISTICAL DIVISION Subdivision and statistical local area</i>	<i>Persons at 30 June</i>		
	<i>1981</i>	<i>1986</i>	<i>1990</i>
ADELAIDE .....	953,696	1,003,802	1,049,873
Northern .....	276,719	295,736	316,553
Elizabeth (C) .....	33,305	31,473	29,835
Enfield (C) Pt A .....	50,901	48,245	47,021
Gawler (M) .....	10,995	12,773	15,074
Munno Para (C) .....	24,211	28,359	31,659
Salisbury (C) .....	88,226	99,044	108,091
Tea Tree Gully (C) .....	69,081	75,842	84,873
Western .....	212,219	214,104	215,906
Enfield (C) Pt B .....	17,115	16,711	16,694
Henley and Grange (C) .....	15,866	15,135	15,078
Hindmarsh (M) .....	7,808	8,160	8,573
Port Adelaide (C) .....	36,482	38,318	39,597
Thebarton (M) .....	9,500	8,789	8,557
West Torrens (C) .....	46,223	44,994	44,757
Woodville (C) .....	79,225	81,997	82,650
Unincorporated .....		Included with Port Adelaide (C)	
Eastern .....	210,555	214,558	218,373
Adelaide (C) .....	11,185	12,290	12,537
Burnside (C) .....	38,686	38,379	39,082
Campbelltown (C) .....	44,297	44,737	45,866
East Torrens (DC) .....	5,218	5,952	6,365
Kensington and Norwood (C) .....	8,985	9,262	9,466
Payneham (C) .....	17,024	16,427	16,268
Prospect (C) .....	19,159	18,982	19,121
St Peters (M) .....	8,710	8,508	8,639
Stirling (DC) .....	13,545	15,711	16,826
Unley (C) .....	36,725	37,251	37,101
Walkerville (M) .....	7,021	7,059	7,102
Southern .....	254,203	279,404	299,041
Brighton (C) .....	20,320	19,680	19,330
Glenelg (C) .....	13,549	13,453	13,620
Happy Valley (C) .....	20,489	29,359	35,014
Marion (C) .....	68,748	72,138	75,835
Mitcham (C) .....	61,687	62,949	63,464
Noarlunga (C) .....	62,504	71,625	79,700
Willunga (DC) .....	6,906	10,200	12,078

(a) Estimates are for boundaries existing at 30 June 1990.

(C) Municipality with city status (DC) District Council (M) Municipality

**Urban centres  
and rural  
localities**

Census counts are available for urban centres and rural localities. These consist of one or more adjoining Census collection districts with urban characteristics (based on *Linge* criteria).

Urban centres are defined as population clusters of 1,000 or more people (including known holiday resorts of smaller size) and rural localities are defined as population clusters of between 200 and 999 people.

Persons in Urban and Rural Areas<sup>(a)</sup>

Census	Urban		Rural	Total (including migratory)
	Adelaide (b)	Other (c)		
1961 .....	587,957	177,380	200,065	969,340
1966 .....	728,279	174,964	190,167	1,094,984
1971 .....	809,482	183,187	179,148	1,173,707
1976 .....	857,196	198,777	187,546	1,244,756
1981 .....	882,520	207,934	193,628	1,285,033
1986 .....	917,000	221,036	205,625	1,345,945

(a) Excludes full-blood Aborigines before the 1966 Census.

(b) Urban Adelaide is a subset of the Adelaide Statistical Division (see the definition of an urban centre).

(c) 'Other Urban' in the 1961 Census comprised all municipalities and non-municipal towns of 1,000 or more persons. From 1966 the 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.

### Population in other urban centres

Only a relatively 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 these States, there are at least six centres outside the capital city with a population in excess of 20,000, the only such centres in South Australia are Whyalla and Mount Gambier.

Persons in Urban Centres<sup>(a)</sup>

Urban centre	1981	1986	Urban centre	1981	1986
Adelaide .....	882,520	917,000	Mannum .....	1,984	2,056
Aldinga Beach .....	2,021	3,041	McLaren Vale .....	735	1,196
Angaston .....	1,753	1,823	Millicent .....	5,255	5,075
Balaklava .....	1,306	1,365	Moonta .....	1,924	2,199
Barmera .....	2,014	1,912	Mount Barker .....	4,190	5,370
Berri .....	3,419	3,502	Mount Gambier .....	19,880	20,813
Bordertown .....	2,138	2,318	Murray Bridge .....	8,664	11,893
Burra .....	1,222	1,187	Naracoorte .....	4,758	4,636
Ceduna .....	2,794	2,877	Nuriootpa .....	2,851	3,209
Clare .....	2,381	2,591	Penola .....	1,205	1,222
Cooper Pedy .....	2,078	2,103	Peterborough .....	2,575	2,239
Crafers-Bridgewater .....	9,764	11,222	Port Augusta .....	15,254	15,291
Crystal Brook .....	1,240	1,294	Port Elliot .....	773	1,050
Gawler .....	9,433	11,354	Port Lincoln .....	10,675	11,552
Goolwa .....	1,624	2,359	Port Pirie .....	14,695	13,960
Hahndorf .....	1,274	1,688	Quorn .....	1,049	1,079
Jamestown .....	1,384	1,372	Renmark .....	3,475	3,489
Kadina .....	2,943	3,263	Strathalbyn .....	1,756	1,924
Kapunda .....	1,340	1,622	Tailem Bend .....	1,677	1,542
Keith .....	1,147	1,189	Tanunda .....	2,621	2,856
Kingscote .....	1,236	1,403	Victor Harbor .....	4,555	5,318
Kingston (SE) .....	1,325	1,367	Waikerie .....	1,629	1,593
Leigh Creek .....	1,635	1,967	Walleroo .....	2,043	2,224
Lobethal .....	1,522	1,580	Whyalla .....	29,962	26,900
Loxton .....	3,100	3,372	Woomera .....	1,658	1,805
Maitland .....	1,085	1,103			

(a) See text for definition of 'urban'. The figures are census counts.

Between 1981 and 1986 most urban centres beyond the Adelaide Statistical Division experienced population growth. This was most evident in towns within 100 kilometres of Adelaide. In the 'Iron Triangle' Port Augusta continued to expand whereas Port Pirie and Whyalla declined.

### Projections of the population

Population projections have been prepared using the cohort-component method, *i.e.* a base population in single years of age is brought forward year by year by applying assumptions about future levels of fertility, mortality and migration.

The assumptions used are summarised for South Australia as follows.

#### Series A:

*Fertility* – Total fertility rates are assumed to decrease from 1,674 in 1991 to 1,633 by 1998 and remain at this level until 2031.

*Mortality* – Mortality rates are assumed to decline for the period of the projections. The projected life expectancies at birth in 1996 and 2021 respectively are 75.8 and 78.3 years for males, and 81.5 and 83.6 years for females. In 1988, the expectation of life at birth was 73.6 years for males and 80.3 years for females.

*Overseas Migration* – For Australia, net migration will remain constant at 125,000 for the projection period. The SA share fluctuates around 7,000 per annum.

*Interstate Migration* – Net inflow of 1,000 for 1990–91 decreasing by 500 per year until 1993–94. After that it remains constant at a net outflow of 500 for each year of the projection period.

#### Series B:

*Fertility* – As for Series A.

*Mortality* – As for Series A.

*Overseas Migration* – As for Series A.

*Interstate Migration* – Net outflow of 2,000 annually. Net inflow of 500 for 1990–91, nil for 1991–92 and net outflow of 500 for 1992–93 increasing to 1,500 by 1997–98. After 1997–98 net outflow remains constant at 1,500 for each year of the projection period.

#### Series C:

*Fertility* – Total fertility rates are assumed to decrease from 1,640 in 1991 to 1,524 by 1998 and remain at this level to the end of the projection period.

*Mortality* – As for Series A.

*Overseas Migration* – As for Series A.

*Interstate Migration* – As for Series A.

#### Series D:

*Fertility* – As for Series C.

*Mortality* – As for Series A.

*Overseas Migration* – For Australia, net migration will remain constant at 125,000 until 1993–94, then decline linearly to 80,000 for 1998–99 and remain at this level to the end of the projection period. The SA share fluctuates around 7,000 per annum until 1994, falls to 4,500 per annum by 1999 and then remains constant.

*Interstate Migration* – As for Series B.

These assumptions lead to a range of projections for the State, *e.g.* under Series A the population is projected to reach 1,817,200 by 2031, under Series D 1,624,900.

Projected Population (Including Migration)<sup>(a)</sup>  
(‘000)

At 30 June	Series A	Series B	Series C	Series D
1991 .....	1,454.6	1,454.1	1,454.4	1,453.9
1996 .....	1,522.3	1,519.6	1,518.5	1,514.5
2001 .....	1,581.9	1,574.3	1,572.0	1,553.2
2006 .....	1,633.5	1,620.0	1,617.6	1,580.8
2011 .....	1,678.8	1,658.9	1,656.8	1,601.1
2016 .....	1,720.4	1,693.9	1,692.1	1,616.6
2021 .....	1,758.8	1,725.3	1,723.1	1,627.3
2026 .....	1,791.9	1,751.1	1,747.5	1,630.8
2031 .....	1,817.2	1,768.9	1,763.2	1,624.9

(a) Based on final estimated resident population at 30 June 1989.

The following table indicates that for all series the proportion of the population aged under 15 is projected to decrease significantly while the proportion 65 and over increases.

Projected Age Group Proportions (Including Migration)  
(Per cent)

Age group (years)	At 30 June	Series A	Series B	Series C	Series D
0-14	1991 .....	20.49	20.49	20.48	20.48
	2011 .....	17.18	17.07	16.31	16.05
	2031 .....	15.55	15.39	14.56	14.16
15-64	1991 .....	66.67	66.67	66.68	66.68
	2011 .....	68.18	68.13	68.86	68.74
	2031 .....	62.26	61.94	62.57	61.65
65 and over	1991 .....	12.84	12.84	12.84	12.84
	2011 .....	14.64	14.80	14.83	15.21
	2031 .....	22.19	22.67	22.87	24.19

### Further references

Additional information may be found in the following ABS publications:

- 2466.0 *Persons and Dwellings in Local Government Areas, Statistical Local Areas and Urban Centres, South Australia*
- 2474.0 *Profile of Legal Local Government Areas, South Australia*
- 3101.0 *Australian Demographic Statistics*
- 3201.4 *Estimated Resident Population in Statistical Local Areas, South Australia*
- 3204.4 *Estimated Resident Population by Age and Sex in Statistical Local Areas, South Australia*
- 3222.0 *Projections of the Population of Australian States and Territories 1989-2031*
- 4102.4 *Accommodation for the Aged, South Australia, 1985*

## 4.2 THE CENSUS

### 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 settlement of Sydney Cove.

### 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 (in what is now Queensland) and details of the names, ages and civil conditions of the inhabitants were sought. The first recognised census in South Australia was taken in 1844. The 1881 Census was the first simultaneous census taken in Australia and formed part of the first simultaneous census of the British Empire.

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* (Cwlth), all censuses of Australia have been taken under the authority of this Act. The first Australian census collected under the Act was that of 1911; subsequent censuses were taken in 1921, 1933, 1947, 1954, 1961, 1966, 1971, 1976, 1981 and 1986.

### Scope of the Census

The census is intended to count all people and dwellings in Australia. In 1986, for the first time, the census was extended to include people in Australia's external territories: Cocos (Keeling), Christmas and Norfolk Islands.

Diplomatic representatives of other governments and their staff and families having diplomatic immunity in accordance with international practice are excluded from censuses. Up to and including the 1966 Census, full-blood Aborigines were also excluded under the provisions of Section 127 of the Constitution, but following the results of a referendum held in 1967 this was repealed and full-blood Aborigines have been included in Censuses since 1971.

The census is taken using a household form delivered to every private dwelling seeking information about all inhabitants and the dwelling. The census count includes babies born at or before midnight on Census day and excludes persons dying before midnight on Census day. Private dwellings include houses, flats, maisonettes, and townhouses. Census forms are also delivered to ships in port or which will be travelling between Australian ports on Census day; and to non-private dwellings such as boarding schools, gaols, hotels and motels, hospitals and nursing homes.

Census collectors are responsible for recording, from personal observations or inquiry, particulars 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.

### The 1991 Census

The twelfth Census of Population and Housing was conducted in 1991 with Census night on Tuesday 6 August.

In 1987 approval was given by the Commonwealth Government to proceed with planning for a Census that would cost considerably less than the 1986 Census. It was considered that the only way the required reduction in costs could be achieved was by reducing the content of the Census or by using sampling for some topics, as there is little scope to significantly reduce distribution and collection costs. Subsequently the ABS released a publication *Preliminary ABS Views on Contents and Procedures* (2171.0) and called for public submissions on these views. The analysis of written submissions and discussions with various user groups indicated that there was strong support for a 1991 Census with similar contents and procedures to the 1986 Census. In 1989 the Government approved a 1991 Census similar to that of 1986 with the major differences being the exclusion of questions on year of first marriage (duration of marriage), whether married more than once, issue (number of children ever born), ancestry (ethnic origin) and reason dwelling unoccupied.

There are forty-three questions on the 1991 Census Household Form, thirty-nine relate to personal characteristics and four to household or dwelling characteristics. Up



to forty-six responses may be required from each person. The Census Form has been designed for the responses to be marked so that they can be read by optical mark recognition (OMR) technology. The questions requiring written responses *e.g.* occupation, will be coded using a computer assisted coding system developed for census processing. This is expected to reduce the cost and time of processing and enable preliminary results to be available in the first half of 1992.

### 4.3 CHARACTERISTICS OF THE POPULATION

The following section provides summary information on characteristics of the population obtained from the most recent censuses. Full listings of tables produced from each census are contained in the relevant Catalogue of Census Tables. The data in this section are Census counts at place of enumeration *i.e.* where people were on Census night.

#### Marital status

The marital status of the population was ascertained at the censuses, with each person enumerated being classified as either never married, married, separated but not divorced, widowed, or divorced.

In 1986 the number of persons who stated to have never married represented 43.0 per cent of all persons, a lower proportion than in 1981. Married persons in 1986 represented 46.0 per cent of the total compared with 46.8 per cent in 1981.

At the 1986 Census, 82.8 per cent of widowed persons were females.

Marital Status of Persons

Marital status	Census 30 June 1981		Census 30 June 1986	
	Males	Females	Males	Females
Never married:				
Under 15 years of age .....	157,161	149,416	151,575	144,511
15 years of age and over .....	139,271	109,241	158,634	124,023
<i>Total never married</i> .....	<i>296,432</i>	<i>258,657</i>	<i>310,209</i>	<i>268,534</i>
Married .....	300,669	300,654	309,308	309,909
Married but permanently separated .....	11,171	13,244	12,174	14,286
Widowed .....	11,705	55,879	12,155	58,564
Divorced .....	15,719	20,903	22,114	28,692
<b>Total</b> .....	<b>635,696</b>	<b>649,337</b>	<b>665,960</b>	<b>679,985</b>

#### The Aboriginal population

Statistics of the total Aboriginal population should be treated with caution as comparisons between numbers obtained from one census to another can be affected by changes in social attitudes, changes made to the wording of the question relating to Aboriginality in an attempt to improve coverage and reporting, and changes to the collection and processing procedures.

There were 14,291 Aborigines counted in South Australia at the 1986 Census, an increase of 4,446 (45.3 per cent) since 1981. Aborigines comprise a little over one per cent of the State's total population.

The following table shows the major locations of Aborigines within South Australia at the 1981 and 1986 Censuses.

## Location of Aborigines and Torres Strait Islanders

Locality	Census count		Locality	Census count	
	1981	1986		1981	1986
Adelaide .....	3,217	5,692	Pipalyatjara .....	64	102
Amata .....	180	277	Point McLeay .....	98	114
Aparawatatja (Fregon) .	203	268	Point Pearce .....	214	182
Berri .....	45	93	Port Augusta .....	1,120	1,415
Ceduna .....	312	402	Port Lincoln .....	348	394
Cooper Pedy .....	70	244	Port Pirie .....	78	124
Gerard .....	125	136	Pukatja (Ernabella) ....	322	365
Indulkana .....	301	238	Quorn .....	69	82
Koonibba .....	119	96	Umoona .....	110	86
Mimili (Everard Park) .	132	145	Whyalla .....	320	515
Mount Gambier .....	60	131	Yalata .....	281	221
Murray Bridge .....	178	298	Remainder of State ....	1,667	2,367
Nepabunna .....	92	91			
Oak Valley .....	(a)	118			
Oodnadatta .....	100	94	<i>Total</i> .....	<i>9,825</i>	<i>14,291</i>

(a) Included with Remainder of State.

The age distribution of the Aboriginal population differs quite markedly from that of the total South Australian population. Over sixty per cent of Aborigines were aged less than 25 years, whereas less than forty per cent of the total population were under 25. Only 2.8 per cent of Aborigines were aged 65 years and over, while 11.6 per cent of the total population were in this age group. Further information about Aborigines is contained in *Census 86 – Aborigines in South Australia* (2201.4).

## Country of birth

Of the persons in South Australia at the 1911 Census, 85.7 per cent were Australian born, increasing to 93.3 per cent in 1947. Overseas migration had lowered the proportion of Australian born persons to 86.1 per cent by 1954, and in 1986 the proportion was 76.5 per cent. The proportion of persons in South Australia 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, rose to 12.7 per cent in 1976 and was 10.9 per cent in 1986. The proportion of persons born in Asia has increased from 0.7 per cent in 1981 to 2.0 per cent in 1986.

## Country of Birth

Country of birth	Census 30 June 1981		Census 30 June 1986		Increase Persons
	Persons	Males	Females	Persons	
Australia .....	979,675	505,422	524,048	1,029,470	49,795
New Zealand .....	6,618	4,196	4,091	8,287	1,669
Europe:					
United Kingdom and Republic of Ireland .	152,087	72,312	74,092	146,404	-5,683
Germany .....	14,755	7,093	7,571	14,664	-91
Greece .....	14,206	6,985	6,471	13,456	-750
Italy .....	31,323	15,842	13,765	29,607	-1,716
Netherlands .....	10,646	5,263	4,935	10,198	-448
Poland .....	6,786	4,341	3,595	7,936	1,150
Yugoslavia .....	9,066	4,928	3,846	8,774	-292
Other .....	20,831	11,160	9,664	20,824	-7
<i>Total Europe</i> .....	<i>259,700</i>	<i>127,924</i>	<i>123,939</i>	<i>251,863</i>	<i>-7,837</i>

## Country of Birth of Persons (continued)

Country of birth	Census 30 June 1981	Census 30 June 1986		Increase	
	Persons	Males	Females	Persons	Persons
Asia:					
India .....	2,485	1,309	1,333	2,642	157
Malaysia .....	1,959	1,486	1,569	3,055	1,096
Vietnam .....	3,845	3,967	3,019	6,986	3,141
Other .....	9,743	6,937	7,793	14,730	4,987
Total Asia .....	18,032	13,699	13,714	27,413	9,381
Other countries .....	10,152	6,166	6,015	12,181	2,029
Total born outside Australia .....	294,502	151,985	147,759	299,744	5,242
<b>Total (including   not stated) .....</b>	<b>1,285,033</b>	<b>665,960</b>	<b>679,986</b>	<b>1,345,945</b>	<b>60,912</b>

## Religion

Answers to the only non-compulsory Census question, that about religion, have revealed some marked changes over the past three Censuses. The proportion indicating no religion has risen from 11.3 per cent in 1976 to 13.9 per cent in 1981 and 16.9 per cent in 1986. Over the same period those not stating any religion grew from 9.6 per cent to 10.6 per cent and 12.1 per cent.

This has been consistent with the decline in the number of persons reporting adherence to Christian denominations from 78.3 per cent in 1976 to 69.6 per cent in 1986.

The number of adherents of non-Christian religions, while still not great, grew from 4,894 (0.4 per cent) to 13,843 (1.0 per cent) between 1976 and 1986.

Religious denomination	Religion		
	Census 1976	Census 1981	Census 1986
Christian:			
Anglican .....	275,337	260,919	242,722
Baptist .....	22,004	22,287	21,415
Brethren .....	1,147	1,099	1,398
Catholic (a) .....	247,571	255,332	267,137
Church of Christ .....	20,260	18,657	16,629
Congregational .....	11,503	2,834	1,524
Jehovah's Witnesses .....	4,824	5,461	6,539
Latter Day Saints/Mormons ...	(b)	3,617	3,515
Lutheran .....	62,344	63,860	64,851
Methodist - including Wesleyan	195,890	85,935	(c)
Orthodox .....	34,829	36,423	37,149
Pentecostal .....	6,103	11,232	14,997
Presbyterian .....	34,778	21,725	18,566
Salvation Army .....	7,991	8,079	8,268
Seventh Day Adventist .....	2,914	3,139	2,944
Uniting Church .....	(d)	108,857	(e)176,980
Protestant .....	21,536	22,063	18,906
Christian n.e.i. ....	25,346	25,751	33,328
Total .....	974,378	957,270	936,868
Buddhist .....	(f)	2,229	5,847
Hindu .....	(f)	(f)	1,171
Jewish .....	1,072	1,114	1,144
Muslim .....	1,031	1,456	2,486
Non-Christian n.e.i. ....	2,746	2,329	3,195
Total .....	4,849	7,128	13,843

## Religion (continued)

Religious denomination	Census 1976	Census 1981	Census 1986
Non-theistic .....	n.a.	n.a.	289
Inadequately described .....	5,528	6,529	5,458
No religion (so described) .....	140,070	178,136	227,275
Not stated .....	119,930	135,970	162,212
<b>Total .....</b>	<b>1,244,754</b>	<b>1,285,033</b>	<b>1,345,945</b>

(a) Includes 'Roman Catholic' and 'Catholic'. (b) Included with Christian n.e.i. (c) Included with Uniting Church. (d) Formed in 1977. (e) Includes Methodist. (f) Included in Non-Christian n.e.i.

## Educational qualifications

The table below shows data for the highest level of educational qualifications obtained as reported in the 1981 and 1986 Censuses.

## Educational Qualification : Highest Level Obtained, Persons 15 Years of Age and Over

Level of qualification	Census 1981			Census 1986		
	Males	Females	Persons	Males	Females	Persons
Higher degree .....	3,207	819	4,026	3,712	1,071	4,783
Graduate diploma .....	3,984	2,880	6,864	3,911	3,239	7,150
Bachelor degree .....	16,879	8,315	25,194	22,326	13,333	35,659
Diploma .....	15,208	20,228	35,436	16,008	20,005	36,013
Trade certificate .....	82,973	9,863	92,836	92,211	11,761	103,972
Other certificate .....	25,881	32,726	58,607	28,710	42,810	71,520
Other .....	919	1,359	2,278	20,863	18,257	39,120
No qualification .....	299,636	388,095	687,731	285,964	375,019	660,983
Not stated .....	29,848	35,636	65,484	40,680	49,979	90,659
<b>Total .....</b>	<b>478,535</b>	<b>499,921</b>	<b>978,456</b>	<b>514,385</b>	<b>535,474</b>	<b>1,049,859</b>

The data highlight significant differences in the distribution of highest level qualification obtained by males and females. Males have obtained more Bachelor and Higher degrees and Trade certificates, with females having gained a larger number of Diploma and Other certificates. The rate of growth in obtaining qualifications was higher for females than for males for all levels of qualification obtained except for Diploma.

The major increases in qualifications obtained over the five year period occurred for Bachelor degrees 10,465 (up 41.5 per cent), Other certificates 12,913 (up 22.1 per cent) and Trade certificates 11,136 (up 12.0 per cent).

## Family structures

The 1986 Census included questions to identify family composition. For Census purposes a family is defined on the basis of blood, marriage or *de facto* relationships. A household may contain more than one family and the family from which the most detailed information is available is classified as the primary family with all other families treated as secondary.

At the 1986 Census, 1,345,945 persons were counted in South Australia and of these 1,156,095 (almost 86 per cent) were in families. A further 14,974 adult boarders and other persons, who were not family members, were in households with families. The remainder of the population constituted 40,291 persons in group households, 93,486 in lone person households and 41,099 in non-private dwellings.

There were 370,807 families counted in South Australia at the 1986 Census. Of these 155,496 (41.9 per cent) were couples with dependent children; 42,704 (11.5 per cent) were couples with adult family members and no dependent children; 122,743 (33.1 per cent), were

couples; 28,231 (7.6 per cent) were single parents with dependent children; and 21,633 (5.8 per cent) consisted of other related adults. The following table shows details of single parent and couple families with dependent children.

Family Types by Number of Dependent Children, Census 1986

Family type	Number of dependent children					Total
	1	2	3	4	5 and more	
Single parent .....	15,279	9,430	2,702	648	172	28,231
Couple .....	53,858	67,996	25,950	6,157	1,535	155,496
<i>Total families with dependent children</i> .	<i>69,137</i>	<i>77,426</i>	<i>28,652</i>	<i>6,805</i>	<i>1,707</i>	<i>183,727</i>

These data show that of the 183,727 families with dependent children, 15.4 per cent were single parent families and 84.6 per cent were couples. More than one-half of single parent families with dependent children contained one dependent child, while less than 3 per cent contained four or more dependent children. Of the couples with dependent children 121,854 (78.4 per cent) contained one or two children while only 7,692 (4.9 per cent) contained four or more children.

In the Census, 320,943 couples were counted and of these 17,533 (5.5 per cent) were living in a *de facto* relationship. The following table shows the family composition of couples by type of union.

Couples by Type of Union, Census 1986

Family composition	Married	De facto	Total
Couple only .....	112,385	10,358	122,743
Couple with dependent children .....	120,263	5,389	125,652
Couple with adult family members . . .	41,714	990	42,704
Couple with dependent children and adult family members .....	29,048	796	29,844
<i>Total couples</i> .....	<i>303,410</i>	<i>17,533</i>	<i>320,943</i>

Of the 155,496 couples with dependent children 6,185 (4.0 per cent) were living in a *de facto* relationship, compared to 11,348 (6.9 per cent) of the remaining 165,447 couples.

About 99 per cent (1,141,934 persons) of people counted in families were in one-family households. This and the size of families are shown in the following table.

Number of Persons by Number in Family, Census 1986

Size of family (persons)	In primary families	In secondary families	Total
2 .....	290,399	8,949	299,348
3 .....	230,911	3,009	233,920
4 .....	347,414	1,537	348,951
5 .....	187,957	438	188,395
6 .....	61,388	144	61,532
7 and over .....	23,865	84	23,949
<i>Total</i> .....	<i>1,141,934</i>	<i>14,161</i>	<i>1,156,095</i>

Over three-quarters (76.3 per cent) of persons in families were members of families of four persons or less and 7.4 per cent of persons were in families of 6 persons or more.

## 4.4 MIGRATION

Under the Constitution, the Commonwealth makes laws governing migration. Persons wishing to enter Australia as permanent settlers must either:

- (a) have a spouse or fiancé, or parents, children, brothers or sisters, aunts or uncles legally resident in Australia who can sponsor them;
- (b) be refugees or in other special humanitarian need; or
- (c) have skills or personal qualities which will benefit Australia.

New Zealanders may enter Australia without prior authority if they hold a valid New Zealand passport.

### Overseas arrivals and departures

The following table gives details for 1990 of overseas arrivals who gave South Australia as their State of intended residence and people leaving for overseas who gave South Australia as their State of residence. Long-term refers to an intended stay of more than twelve months, and short-term as less than twelve months.

Overseas Arrivals and Departures : Category of Traveller, 1990

<i>Category of traveller</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
<b>ARRIVALS</b>			
Permanent settlers .....	3,028	3,050	6,078
Long-term:			
Australian residents .....	1,633	1,645	3,278
Overseas visitors .....	1,267	1,044	2,311
<i>Total permanent and long-term</i> ...	<i>5,928</i>	<i>5,739</i>	<i>11,667</i>
Short-term:			
Australian residents .....	53,764	53,695	107,459
Overseas visitors .....	31,518	29,531	61,049
<b>Total arrivals</b> .....	<b>91,210</b>	<b>88,965</b>	<b>180,175</b>
<b>DEPARTURES</b>			
Permanent .....	736	817	1,553
Long-term:			
Australian residents .....	1,879	1,944	3,823
Overseas visitors .....	909	718	1,627
<i>Total permanent and long-term</i> ...	<i>3,524</i>	<i>3,479</i>	<i>7,003</i>
Short-term:			
Australian residents .....	56,402	52,043	108,445
Overseas visitors .....	31,935	29,675	61,610
<b>Total departures</b> .....	<b>91,861</b>	<b>85,197</b>	<b>177,058</b>

### Visitors

People are allowed to visit Australia for short periods for tourism, business, to see relatives or friends, or for pre-arranged medical treatment. Visitors are not to undertake a job or formal study while in Australia, and must leave at the end of their authorised period of stay.

### Overseas students

As part of its aid program, Australia accepts foreign students and trainees to enable them to acquire skills and qualifications of benefit both to themselves and their countries. Some are sponsored by their governments while the rest are private students.

**Temporary residents**

Permanent residents are given first priority for employment, but temporary residence may be granted to people from overseas, who possess expertise not available here, so that they can engage in pre-arranged specialised activities. Persons seeking temporary residence for longer than twelve months are required to meet the health and character requirements which apply to permanent settlers.

**Citizenship**

The status of 'Australian Citizen' was created under the *Nationality and Citizenship Act 1948* (Cwlth), which came into force on 26 January 1949. The relevant Act is now the *Australian Citizenship Act 1948* (Cwlth) and under its provision all migrants, regardless of origin, are required to satisfy uniform requirements for the granting of citizenship. Citizenship is normally conferred at ceremonies conducted by local government authorities throughout the State.

**Further references**

Additional information may be found in the following ABS publications:

- 3101.0 *Australian Demographic Statistics* (Quarterly)
- 3401.0 *Overseas Arrivals and Departures, Australia* (Monthly)
- 3402.0 *Overseas Arrivals and Departures, Australia* (Quarterly)
- 3404.0 *Overseas Arrivals and Departures, Australia* (Annual)

**4.5 BIRTHS AND DEATHS**

Current legislation on compulsory registration of births and deaths is contained in the *Births, Deaths and Marriages Registration Act 1966* which came into operation on 1 January 1968. The administration of the Act is the responsibility of the Principal Registrar of Births, Deaths and Marriages.

The Principal Registrar maintains a register of all live births and of all deaths registered in the State. The current legislation does not require still births to be registered, 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 the payment of a fee and a declaration in a form prescribed by the Act.

A death must 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.

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.

In this section, unless otherwise stated, details of births are on the basis of State of usual residence of the mother and details of deaths are on the basis of State of usual residence of the deceased, regardless of where in Australia the event occurred.

In the following tables births to mothers usually resident in South Australia which took place overseas are excluded, while births to mothers usually resident overseas that occurred in South Australia are included. Similarly, deaths of South Australian residents which occurred overseas are excluded, and deaths of persons usually resident overseas that occurred in South Australia are included.

## Births

The South Australian crude birth rate (number of births per thousand of mean estimated resident population) during 1989 was 13.8 compared with the Australian rate of 14.9.

Year	Total live births occurred (a)	Live Births					Sex ratio(c)
		Total	Rate (b)	Males	Females	Sex ratio(c)	
1985	19,650	19,790	14.5	10,147	9,643	105.2	
1986	19,594	19,741	14.4	9,930	9,811	101.2	
1987	19,077	19,235	13.8	9,896	9,339	106.0	
1988	19,150	19,155	13.6	9,917	9,238	107.4	
1989	18,265	19,610	13.8	10,152	9,458	107.3	

(a) Figures are subject to the addition of late registrations, particularly 1989.

(b) Number per 1,000 of mean estimated resident population.

(c) Number of male births per 100 female births.

## Age-specific birth rates

Age-specific birth rates are the live births registered during the year according to age of mother per 1,000 of the female resident population.

From the following table it can be seen that there has been a decline in age-specific birth rates for women aged under 30 years. Age-specific birth rates for women aged 30 years and over decreased from 1961 until the late 1970s but have since increased slightly. These figures reflect the tendency to smaller families and the later median age of first nuptial confinements.

Year	Age-specific Birth Rates and Total Fertility								Total fertility (a)
	Age group (years)								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
1966 (b) ...	44.4	178.7	181.6	99.3	49.3	14.6	0.8	2,844	
1971 (b) ...	46.7	179.0	186.7	82.7	37.1	8.7	0.6	2,707	
1976 (b) ...	29.6	126.5	137.4	59.2	17.3	4.2	0.3	1,886	
1981 (b) ...	26.3	104.2	139.6	65.0	18.8	3.1	0.2	1,785	
1986 (b) ...	21.3	90.1	136.5	79.6	21.5	3.4	0.2	1,763	
1987	19.9	81.9	134.0	80.4	22.8	3.7	0.1	1,714	
1988	20.1	76.8	130.1	83.1	25.3	3.1	0.2	1,693	
1989	21.2	76.2	129.5	86.1	27.4	3.7	0.1	1,719	

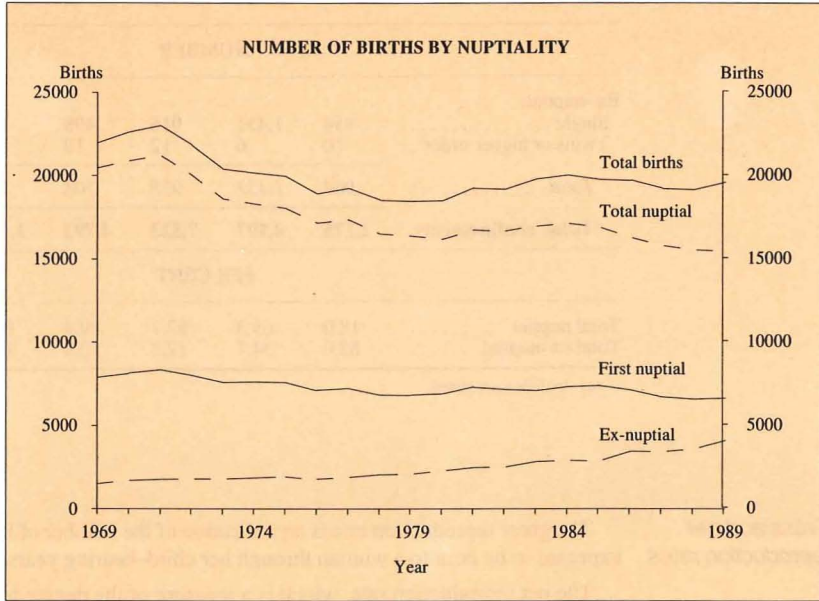
(a) The number of children 1,000 women would bear during their lifetimes if they experience the rates of the year shown.

(b) Census year.



*Confinements and nuptiality*

Confinements are the number of pregnancies resulting in at least one live birth. Multiple confinements are those resulting in two or more births, at least one of which is live-born.



Live births are identified as nuptial where the father registered was married to the mother at the time of birth, or where the husband died during pregnancy. Confinements and children of Aboriginal mothers considered to be tribally married are classified as nuptial.

Other confinements, and the children resulting from them, are classified as ex-nuptial whether or not the parents were living together at the time of birth and whether or not the child may subsequently have been legitimised or adopted.

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 21.0 per hundred live births in 1989.

Confinements : Nuptiality and Plurality by Age Group of Mother 1989

Particulars	Age of mother (years)						Total (a)
	Under 20	20-24	25-29	30-34	35-39	40 and over	
NUMBER							
Nuptial:							
Single .....	210	2,707	6,509	4,220	1,256	159	15,063
Twins .....	1	33	82	58	22	2	198
Triplets or higher order	-	-	4	6	2	-	12
<i>Total</i> .....	<i>211</i>	<i>2,740</i>	<i>6,595</i>	<i>4,284</i>	<i>1,280</i>	<i>161</i>	<i>15,273</i>

Confinements : Nuptiality and Plurality by Age Group of  
Mother 1989 (continued)

Particulars	Age of mother (years)						Total (a)
	Under 20	20-24	25-29	30-34	35-39	40 and over	
NUMBER							
Ex-nuptial:							
Single .....	954	1,451	916	498	187	25	4,031
Twins or higher order .	10	6	12	10	4	-	42
Total .....	964	1,457	928	508	191	25	4,073
<b>Total confinements</b>	<b>1,175</b>	<b>4,197</b>	<b>7,523</b>	<b>4,792</b>	<b>1,471</b>	<b>186</b>	<b>19,346</b>
PER CENT							
Total nuptial .....	18.0	65.3	87.7	89.4	87.0	86.6	78.9
Total ex-nuptial .....	82.0	34.7	12.3	10.6	13.0	13.4	21.1

(a) Includes not stated.

*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 years.

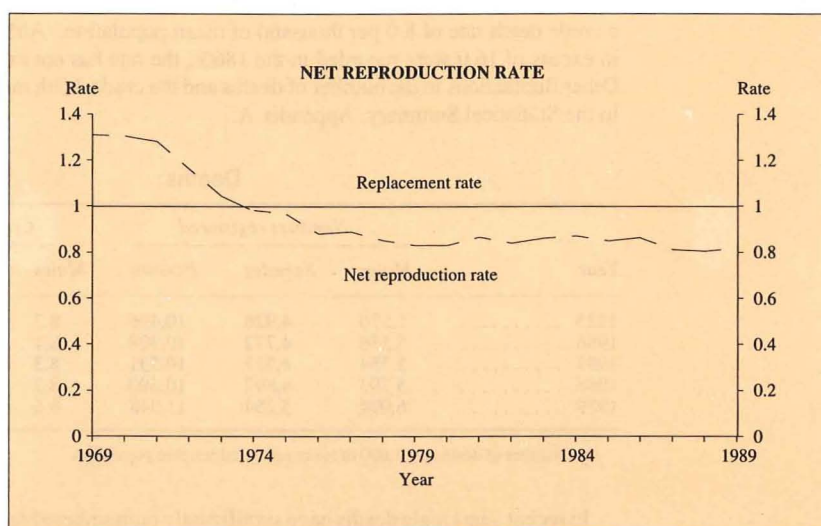
The net reproduction rate, which is a measure of the degree to which the population can replace itself, is derived from the gross reproduction rate by taking into account the females who fail to survive to the end of their child-bearing period.

The following table shows a general decline in the net reproduction rate. The current 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 be reached ultimately and the population will begin to decline. It should be realised, however, that this is not a forecast of what can be anticipated but only a hypothetical projection of what will happen if the given conditions upon which it has been based continue to apply.

Gross and Net Reproduction Rates

Year	Gross reproduction rate	Net reproduction rate	
		Rate	Mortality experience on which rate is based
1966 (a) .....	1.368	1.323	1965-1967
1971 (a) .....	1.318	1.281	1970-1972
1976 (a) .....	0.900	0.880	1975-1977
1981 (a) .....	0.880	0.866	1981
1986 (a) .....	0.876	0.862	1986
1987 .....	0.825	0.812	1987
1988 .....	0.817	0.805	1988
1989 .....	0.831	0.819	1989

(a) Census year.



### *Age of parents and duration of marriage*

For more than twenty years the median age of parents and the duration of marriage for all first nuptial confinements has shown an increasing trend.

The median age of mother for first nuptial confinements increased from 23.0 years in 1969 to 27.4 years in 1989, while the median age of mother for all confinements rose from 25.2 years to 27.9 years.

The median age of father for all nuptial confinements increased from 29.2 years to 30.9 years in the same period.

In 1969 the median duration of marriage for first nuptial confinements was 1.58 years, but in 1989 it had risen to 2.80 years.

For ex-nuptial confinements the median age of mother fell from 21.0 years in 1969 to 20.5 years in 1973 but since then has shown an upward trend to 23.4 years in 1989.

### Median Age and Duration of Marriage (Years)

Particulars	1987	1988	1989
Median age of mother:			
Nuptial first confinements .....	26.98	27.19	27.43
All nuptial confinements .....	28.08	28.37	28.62
Ex-nuptial confinements .....	23.40	23.23	23.36
<i>All confinements</i> .....	<i>27.51</i>	<i>27.74</i>	<i>27.93</i>
Median age of father:			
Nuptial confinements .....	30.41	30.65	30.92
Median duration of marriage:			
Nuptial first confinements .....	2.77	2.78	2.80

**Deaths**

The 11,348 deaths of South Australian residents registered during 1989 represented a crude death rate of 8.0 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.

Year	Deaths					
	Numbers registered			Crude death rate (a)		
	Males	Females	Persons	Males	Females	Persons
1985 .....	5,570	4,926	10,496	8.2	7.1	7.7
1986 .....	5,556	4,772	10,328	8.1	6.9	7.5
1987 .....	5,754	4,777	10,531	8.3	6.8	7.6
1988 .....	5,793	4,897	10,690	8.3	6.9	7.6
1989 .....	6,094	5,254	11,348	8.6	7.3	8.0

(a) Number of deaths per 1,000 of mean estimated resident population.

In recent years male deaths have significantly outnumbered female deaths for persons aged less than 80 years, while for ages in excess of 80 the number of female deaths has been much higher. This is a reflection of the age and sex distribution of the population which has resulted mainly from the greater longevity experienced by females in the population. The following table shows deaths by sex and age group for the years 1988 and 1989.

Age group (years)	Age at Death					
	Males		Females		Persons	
	1988	1989	1988	1989	1988	1989
Under 1 .....	96	81	56	65	152	146
1-4 .....	17	16	11	20	28	36
5-9 .....	10	10	10	11	20	21
10-14 .....	16	11	4	8	20	19
15-19 .....	72	66	25	21	97	87
20-24 .....	83	75	26	27	109	102
25-29 .....	78	76	22	34	100	110
30-34 .....	69	72	19	34	88	106
35-39 .....	63	81	43	48	106	129
40-44 .....	98	81	47	51	145	132
45-49 .....	125	127	67	76	192	203
50-54 .....	185	175	80	110	265	285
55-59 .....	310	318	178	168	488	486
60-64 .....	604	537	303	309	907	846
65-69 .....	742	739	401	440	1,143	1,179
70-74 .....	878	925	576	590	1,454	1,515
75-79 .....	968	1,068	739	823	1,707	1,891
80 and over .....	1,379	1,636	2,290	2,419	3,669	4,055
All ages .....	5,793	6,094	4,897	5,254	10,690	11,348

The following tables show that age-specific death rates, *i.e.* deaths in each age group expressed as a rate per 1,000 of population in that age group, have fallen in all age groups for both males and females over the last 65 years. Because age composition 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<sup>(a)</sup>

Age group (years)	Death rate (b)				
	1965-67	1970-72	1975-77	1980-82	1985-87
0-4	4.58	4.66	3.20	2.76	2.33
5-9	0.44	0.43	0.36	0.33	0.23
10-14	0.55	0.38	0.36	0.38	0.22
15-19	1.19	1.48	1.51	1.27	1.23
20-24	1.33	1.55	1.56	1.25	1.36
25-29	1.34	1.12	1.27	1.19	1.20
30-34	1.13	1.41	1.23	1.07	1.16
35-39	2.23	2.04	1.72	1.57	1.32
40-44	3.27	3.15	2.60	2.29	2.20
45-49	5.71	5.49	5.05	4.16	3.17
50-54	9.59	9.37	8.15	7.47	5.72
55-59	15.92	16.01	13.22	12.76	10.87
60-64	26.69	25.10	22.33	19.52	16.09
65-69	40.55	41.00	36.05	31.09	27.54
70-74	63.86	64.42	54.08	49.09	43.45
75-79	90.71	96.09	87.50	78.54	70.14
80-84	138.50	142.39	132.63	117.92	112.19
85 and over	228.91	230.02	211.49	201.85	187.97
All ages	9.17	9.31	8.52	8.36	8.18

(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. From 1975-77 estimated resident population.

Age-specific Death Rates : Females<sup>(a)</sup>

Age group (years)	Death rate (b)				
	1965-67	1970-72	1975-77	1980-82	1985-87
0-4	3.47	3.39	2.49	2.00	1.84
5-9	0.33	0.32	0.35	0.14	0.17
10-14	0.29	0.29	0.21	0.17	0.17
15-19	0.44	0.65	0.55	0.45	0.45
20-24	0.46	0.48	0.44	0.44	0.52
25-29	0.53	0.60	0.42	0.36	0.51
30-34	0.87	0.91	0.66	0.42	0.58
35-39	1.14	1.18	0.91	0.85	0.70
40-44	2.13	1.86	1.83	1.44	1.22
45-49	3.29	2.95	2.73	2.12	2.19
50-54	4.99	4.60	4.32	3.39	3.54
55-59	7.59	7.41	6.48	5.31	4.97
60-64	12.82	12.16	10.45	8.53	7.82
65-69	20.39	20.32	16.53	14.61	13.61
70-74	35.36	33.42	28.77	24.95	24.02
75-79	60.81	57.60	51.55	42.39	40.69
80-84	100.52	99.42	84.68	75.39	68.88
85 and over	183.88	186.55	176.26	163.02	146.38
All ages	7.42	7.50	7.03	6.69	6.94

(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. From 1975-77 estimated resident population.

*Infant mortality*

The infant mortality rate, *i.e.* the number of deaths of children under one year to every 1,000 live births, has declined markedly in the last century. Rates around 200 were not uncommon in the 1850s and 1860s but by the early 1900s the rate was less than half this. Further rapid declines have been evident throughout this century with the 1989 rate being 7.4. The number of infant deaths and infant death rates for selected years since 1851 are shown in the Statistical Summary, Appendix A.

## Infant Mortality : Age at Death

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								
1987 .....	20	22	8	16	19	16	101	10.2
1988 .....	30	17	10	15	17	7	96	9.7
1989 .....	27	12	10	14	10	8	81	8.0
FEMALES								
1987 .....	22	11	8	14	8	1	64	6.9
1988 .....	22	9	7	8	5	5	56	6.1
1989 .....	22	11	7	11	8	6	65	6.9
TOTAL								
1987 .....	42	33	16	30	27	17	165	8.6
1988 .....	52	26	17	23	22	12	152	7.9
1989 .....	49	23	17	25	18	14	146	7.4

(a) Rate per 1,000 live births.

The fall in infant mortality is attributable to many factors, including better pre-natal care and obstetric management, which have led to safer births, and to the neonatal intensive care units at major maternity hospitals which have brought about a high survival rate for small and immature infants.

Statistics of infant mortality shown in the table above include the neonatal segment of perinatal deaths which are discussed in the following paragraph.

Perinatal  
deaths

Perinatal deaths comprise fetal deaths (stillbirths) and neonatal deaths (deaths within twenty-eight days of birth), of children weighing at least 500 grams at delivery or, when birthweight is unavailable, of at least twenty-two weeks gestation.

## Live Births and Perinatal Deaths

Year	Live births (a)	Perinatal deaths					
		Fetal		Neonatal		Total perinatal	
		Number	Rate (b)	Number	Rate (b)	Number	Rate (b)
1986 ...	19,741	124	6.2	76	3.8	200	10.1
1987 ...	19,235	89	4.6	81	4.2	170	8.8
1988 ...	19,155	109	5.7	84	4.4	193	10.0
1989 ...	19,610	127	6.4	72	3.7	199	10.1

(a) Includes a very small number of live births that do not meet the definition of a perinatal death. These have been excluded from the denominator used to calculate the perinatal death rates.

(b) Fetal death rate is the number of fetal deaths per 1,000 of relevant births registered plus fetal deaths. Neonatal death rates are per 1,000 relevant live births registered. Perinatal death rates are per 1,000 relevant live births registered plus fetal deaths.

Expectation  
of life

Based on the mortality conditions prevailing in South Australia during 1989, the life expectancy at birth for males was 73.7 years and for females 79.7 years (see Part 5.3).

**Further references**

More detailed information on life expectancy, perinatal deaths and causes of death in South Australia are included in Part 5.3 Health, and additional information may be found in the following ABS publications:

- 3304.0 *Perinatal Deaths, Australia*  
 3311.4 *Demography, South Australia*  
 3312.4 *Deaths, South Australia*

**4.6 MARRIAGES AND DIVORCES****Marriages**

The current legislation relating to marriages in Australia is the *Marriage Act 1961* (Cwlth) and in South Australia this is administered by the Principal Registrar of Births, Deaths and Marriages.

Details of persons marrying classified by previous marital status for the three years to 1990 are given in the following table.

Previous Marital Status of Persons Marrying

Year	Bridegrooms			Brides			Total marriages	Rate (a)
	Never married	Widowed	Divorced	Never married	Widowed	Divorced		
1988 ....	7,444	260	2,424	7,550	326	2,252	10,128	7.20
1989 ....	7,267	252	2,257	7,328	297	2,151	9,776	6.87
1990 ....	7,107	243	2,259	7,241	276	2,092	9,609	6.70

(a) Per 1,000 of mean estimated resident population.

Marriage numbers and rates for selected years from 1846 are shown in the Appendix. The crude marriage rate rose throughout the sixties from 6.99 in 1960 to 9.38 in 1970, gradually declined to a level of 8.67 in 1974 and fell substantially to 7.78 in 1975. The 1976 rate of 8.55 coincided with the introduction of the Family Law Act and a significant increase in the number of divorced persons remarrying. The rate has declined since then even though the proportion of persons marrying who have been divorced has been consistently above 20 per cent.

During 1990 the median age of persons marrying for the first time was 26.0 years for males and 23.9 years for females, a difference of 2.1 years.

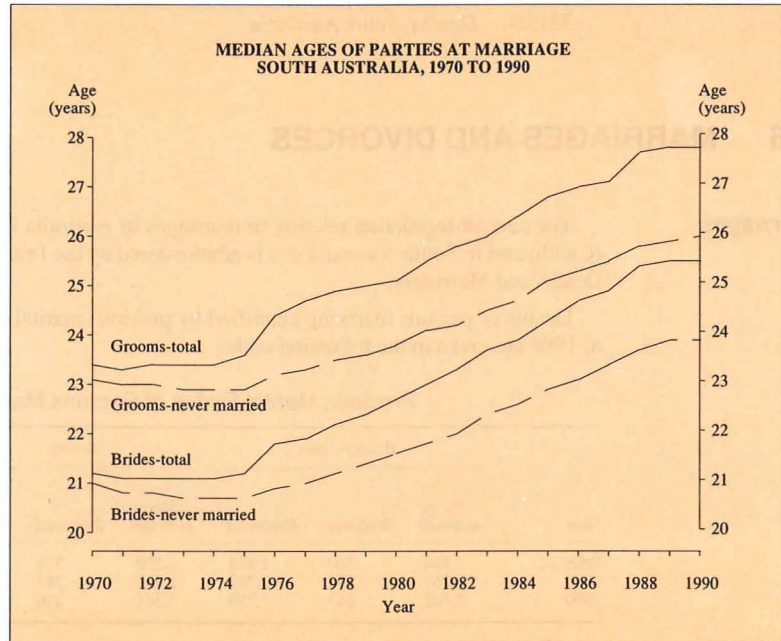
The median age of both bridegrooms and brides has shown an upward trend for more than ten years. This trend is apparent for both persons who are marrying for the first time and those who have been married previously.

Median Age at Marriage and Previous Marital Status<sup>(a)</sup>

Year	Median age of bridegrooms (years)				Median age of brides (years)			
	Never married	Widowed	Divorced	Total	Never married	Widowed	Divorced	Total
1988 ....	25.8	61.3	38.6	27.7	23.7	54.5	35.2	25.4
1989 ....	25.9	61.3	39.1	27.8	23.9	54.7	35.6	25.5
1990 ....	26.0	62.5	39.4	27.8	23.9	52.3	36.3	25.5

(a) The term 'median age' refers to that age which divides total age distribution into two parts of equal magnitude.

In 1990, slightly less than two-thirds of marriages (65.9 per cent) involved partners both of whom had never been married; one partner had been married previously in 17.5 per cent of marriages, and a remarriage for both partners took place in 16.6 per cent of ceremonies.



### Marriage rites

Marriages performed by civil officers in South Australia during the decade from 1960 to 1969 accounted for 10.9 per cent of all marriages. This proportion has increased steadily since then and was 40.2 per cent in 1990. This is related to the increasing numbers of divorced persons remarrying, for example in 1990, 64.7 per cent of persons who had been married previously were married in civil ceremonies.

### Marriages : Category of Authorised Celebrant

Rites	Number of marriages			Proportion of total marriages (per cent)		
	1988	1989	1990	1988	1989	1990
<b>Denomination:</b>						
Anglican .....	881	805	816	8.7	8.2	8.5
Baptist .....	211	196	210	2.1	2.0	2.2
Catholic .....	1,642	1,615	1,536	16.2	16.5	16.0
Churches of Christ ....	195	182	194	1.9	1.9	2.0
Lutheran .....	442	504	479	4.4	5.2	5.0
Orthodox .....	294	315	250	2.9	3.2	2.6
Presbyterian .....	37	48	44	0.4	0.5	0.5
Uniting Church .....	1,708	1,624	1,663	16.9	16.6	17.3
Other denominations ..	535	519	558	5.3	5.3	5.8
<b>Total .....</b>	<b>5,945</b>	<b>5,808</b>	<b>5,750</b>	<b>58.7</b>	<b>59.4</b>	<b>59.8</b>
<b>Civil ceremonies by:</b>						
Official registrars .....	1,620	1,391	1,381	16.0	14.2	14.4
Other civil celebrants ..	2,563	2,577	2,478	25.3	26.4	25.8
<b>Total .....</b>	<b>10,128</b>	<b>9,776</b>	<b>9,609</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>



## Divorces

The South Australian Registry of the Family Court of Australia has had exclusive jurisdiction over divorces since 31 May 1976, under the *Family Law Act 1975* (Cwth). This Act repealed the *Matrimonial Causes Act 1959* (Cwth) which had granted jurisdiction to hear and determine divorces to the Supreme Courts of the States and Territories.

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.

In 1976, the first year of operation of the Family Law Act, there were 6,142 divorces granted in South Australia; 4,740 of these were granted under the new legislation and the remainder under the Matrimonial Causes Act which was repealed in that year. Since that year the highest number of divorces granted in a year was in 1982 when it was 4,526. The next table gives details of divorces granted for the years 1988 to 1990.

Particulars	Unit	1988	1989	1990
Divorces granted	No.	4,031	3,740	4,066
Crude divorce rate (a)	per cent	2.9	2.6	2.8
Median duration of marriage	years	10.3	10.2	10.3
Median interval between marriage and final separation	years	7.6	7.7	8.0
Divorces involving children:				
Number	No.	2,413	2,090	2,345
Percentage of total	Per cent	59.9	55.9	57.7
Average issue	No.	1.8	1.9	1.9

(a) The crude divorce rate is the number of divorces granted per 1,000 of the mean estimated resident population.

Details of the relative ages at marriage of husbands and wives for divorces granted in 1990 are contained in the following table. The median age at marriage for husbands was 24.3 years and for wives 21.7 years.

### Divorces : Ages of Parties at Time of Marriage, 1990

Age of husband (years)	Age of wife (years)								Total (incl. not stated)
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50 and over	
Under 20	219	56	1	-	-	-	-	-	276
20-24	729	1,131	115	12	8	1	-	-	2,000
25-29	143	505	208	55	13	5	-	-	933
30-34	31	117	122	80	22	9	2	1	385
35-39	5	25	53	45	36	8	4	1	177
40-44	6	14	19	26	34	21	2	6	128
45-49	-	4	3	17	10	15	10	2	61
50 and over	-	6	5	7	12	10	23	32	97
Not stated	1	1	-	-	2	-	-	-	9
<b>Total</b>	<b>1,134</b>	<b>1,859</b>	<b>526</b>	<b>242</b>	<b>137</b>	<b>69</b>	<b>41</b>	<b>42</b>	<b>4,066</b>

The proportion of persons granted divorces who were divorced at the time of their marriage has been increasing steadily in recent years. The following table gives details of marital status at the time of the marriage for divorces granted in the years 1988 to 1990.

## Divorces : Marital Status at Time of Marriage

<i>Marital status at marriage</i>	1988	1989	1990
HUSBANDS			
Never married .....	3,284	3,037	3,351
Widowed .....	33	36	43
Divorced .....	714	667	672
WIVES			
Never married .....	3,329	3,072	3,351
Widowed .....	36	46	51
Divorced .....	666	622	664

**Further  
references**

Additional information may be found in the following ABS publication:

3311.4 *Demography, South Australia*

## Chapter 5

# SOCIAL ENVIRONMENT

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## 5.1 LAW, ORDER AND PUBLIC SAFETY

### Law and administration

The law in force in South Australia consists of:

- 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;
- Acts passed by the Parliament of the State of South Australia, together with regulations, rules, orders etc. made thereunder;
- Acts passed by the Commonwealth Parliament within the scope of its allotted powers, together with regulations, rules, orders etc. made thereunder;
- Imperial law applying to 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); and
- 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.

### Attorney-General's Department

The role of the Attorney-General's Department is the provision of efficient legal and associated services to the Attorney-General, other Ministers of the Crown, Government departments and to specified public authorities.

The Attorney-General, who is a member of State Parliament and a Minister of the Crown, is the first law officer of the Crown in South Australia. The Attorney-General initiates and defends certain proceedings by and against the State as *parens patriae*, and is responsible for the laying of information in cases of indictable offences. The Attorney-General also administers Acts of Parliament relating to justices, coroners, land titles, equal opportunity, business names, and the Electoral Commission.

The Solicitor-General, at the request of the Attorney-General, acts as counsel for the Crown as well as providing formal legal advice to the Attorney-General, the Premier and to the State Government and its agencies. In February 1989, the State Government approved the separation of the roles of the Crown Solicitor and the Chief Executive Officer. Under the new arrangements, the Chief Executive Officer has special responsibility for policy advice and development in the areas of responsibility of the Attorney-General's portfolio. The Crown Solicitor remains responsible for the Crown's professional legal practice and for the management of the Crown Solicitor's Office.

The Parliamentary Counsel is responsible to the Government for the preparation of all legislation initiated by the Government.

### Courts

#### Supreme Court

The Supreme Court is the superior court of record in and for the State and is constituted by the Chief Justice and puisne judges and the masters appointed under the *Supreme Court Act 1935*. 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 practice and procedure of the Court.

The Supreme Court has unlimited civil and criminal jurisdiction, except in respect of matters which are reserved for the original jurisdiction of Commonwealth Courts which may, under recent legislation, transfer matters in appropriate cases to the Supreme Court.

Persons charged on information must be tried before a jury except where an accused person has elected to be tried before a judge alone.

In its appellate jurisdiction the Court corrects errors of the lower courts and interprets and expounds the law. Subject to leave being granted, appeals lie from decisions of the Supreme Court to the High Court of Australia.

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.

#### District Court

The District Court (also referred to as the Local Court of Full Jurisdiction) is an intermediate court and is constituted by a senior judge and other judges appointed under the Local and District Criminal Courts Act. Two of the judges sit in the Children's Court, two judges sit in the Appeal Tribunals Jurisdiction and one in the Commercial Tribunal. The District Court in its civil and criminal jurisdictions sits in Adelaide. It also holds civil circuits at Port Lincoln, Port Pirie, the Riverland, Mount Gambier and Whyalla and criminal circuits at Mount Gambier and Port Augusta.

#### Supreme and District Criminal Court Appearances Charges and Case Outcomes, 1989

Charge	Total charged	Outcome		
		Guilty as charged	Acquitted or discharged	Other (a)
Offences against the person (b) . . . . .	239	142	59	38
Robbery and extortion . . . . .	98	78	11	9
Sexual offences . . . . .	223	99	104	20
Drug offences . . . . .	291	255	15	21
Fraud and deception . . . . .	131	109	19	3
Breaking and entering . . . . .	169	145	15	9
Other offences (c) . . . . .	234	171	19	44
<b>Total . . . . .</b>	<b>1,385</b>	<b>999</b>	<b>242</b>	<b>144</b>

(a) Includes not guilty on the grounds of insanity and guilty of a lesser or different charge.

(b) Includes murder, manslaughter, causing death by dangerous driving.

(c) Includes arson, larceny, receiving and malicious damage.

The civil jurisdictional limit of the District Court is \$150,000 in actions relating to injury, damage or loss caused by, or arising out of, the use of a motor vehicle and in any other case \$100,000. The criminal jurisdictional limit of the District Court is fifteen years imprisonment. Crimes prosecuted by information laid in the District Court must be tried before a jury.

#### Local Courts

Local Courts were first established in South Australia by an ordinance of 1850 and originally had criminal as well as civil jurisdiction. They are divided into three areas; Limited Jurisdiction, Special Jurisdiction and Small Claims. The courts vested with all

jurisdictions are the Local Courts of Adelaide, South East (Mount Gambier), Lincoln (Port Lincoln), Pirie (Port Pirie), Riverland (Berri) and Whyalla. These courts may hear and determine actions for amounts up to \$20,000 with special provisions for hearing 'small claims' as defined for a pecuniary sum not exceeding \$2,000. Courts of Special Jurisdiction may hear and determine any unsatisfied judgment summons whatever the amount of the judgment.

A magistrate exercises limited jurisdiction including small claims, and special jurisdiction; two justices of the peace sitting together or one special justice sitting alone may only exercise special jurisdiction.

#### Children's Court

Proceedings in the Children's Court are regulated by the *Children's Protection and Young Offenders Act 1979* which relates to persons who are less than 18 years of age. A screening panel decides whether a young offender who has admitted an allegation appears before a non-judicial tribunal, called the Children's Aid Panel, or a Children's Court. Most first offenders are referred to an Aid Panel.

#### Juvenile Offenders, Offences Alleged, 1989-90

Major offence type	Children's Court	Children's Aid Panels	Total offences
Homicide	5	—	5
Assault	358	223	581
Robbery	29	7	36
Rape	16	9	25
Sexual offences	24	35	59
Break and enter	1,255	724	1,979
Vehicle theft	1,241	382	1,623
Other theft	1,464	2,646	4,110
Wilful damage	801	694	1,495
Receiving	153	142	295
Fraud	212	135	347
Drug offences (other than alcohol)	754	739	1,493
Liquor	374	534	908
Driving and traffic (major offences)	817	486	1,303
Unlawfully on premises	182	238	420
Indecent behaviour	71	36	107
Disorderly behaviour	849	331	1,180
Other	723	583	1,306
<i>Total number of offences</i>	<i>9,328</i>	<i>7,944</i>	<i>17,272</i>
<i>Total number of offenders</i>	<i>2,084</i>	<i>4,345</i>	<i>6,429</i>
<i>Total number of first offenders</i>	<i>450</i>	<i>4,018</i>	<i>4,468</i>

The Children's Court may not try homicide offences. In cases of very serious offences or persistent serious offending, an order for the child to be tried in an adult court may be obtained. A child may elect to be tried as an adult and, if found guilty, be subject to the penalties set by the Children's Court.

The Children's Court also deals with neglected children where the Chief Executive Officer of the Department for Family and Community Services applies for a declaration that a child is in need of care and should be placed under the guardianship of the Minister of Family and Community Services.

#### 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 confined to cases where the property value is not more than \$2,000, and the limit of their jurisdiction as to penalty is imprisonment for two years.

**Coroners Court**

The principal function of the office of Coroner is the detection and deterrence of secret homicide. The Coroner performs an investigative role into both natural and unnatural deaths, and examines deaths related to civil matters, e.g. workers compensation. Although from time to time the Coroner has been given a criminal jurisdiction, this is not currently the case.

The Coroner also inquires into the causes and origins of all fires causing damage to persons or property and into the disappearance from or within the State of any person.

**Jury system**

The procedure in relation to juries is governed by the *Juries Act 1927*. 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.

From 1985 the Juries Act provides that an accused may elect, in accordance with the Rules of Court, to be tried by a judge alone.

Jury districts for the metropolitan and certain country areas are fixed by proclamation pursuant to the Juries Act and 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.

**Liquor licensing authority**

The licensing of hotels and other outlets to sell liquor is governed by the *Liquor Licensing Act 1985*, which came into effect on 1 July 1985 under which is constituted a licensing authority, consisting of a Licensing Court Judge and a Liquor Licensing Commissioner. Licences are divided into two categories as follows:

*Category A*

hotel licence  
retail liquor merchant's licence  
wholesale liquor merchant's licence  
entertainment venue licence  
general facility licence

*Category B*

club licence  
producer's licence  
residential licence  
restaurant licence  
limited licence

All matters concerning Category B licences, and some matters relating to Category A licences, are determined by the Liquor Licensing Commissioner. The Licensing Court Judge determines the remaining matters relating to Category A licences and any applications for review of a decision of the Commissioner, who is also responsible for the administration of the Act.

Licence fees, except for limited licences, are assessed as a percentage of the value of liquor purchases (or in some cases sales) during the previous twelve months.

**Bankruptcy**

Since 1928 bankruptcy has been under Commonwealth Government jurisdiction. Under the *Bankruptcy Act 1966* (Cwlth) South Australia is a bankruptcy 'district' and jurisdiction is exercised by the Federal Court of Australia. Bankruptcy proceedings can be instituted either by a debtor filing his own petition or by a creditor issuing a creditor's petition whereupon the Federal Court may make a sequestration order against that debtor's estate. A bankrupt is entitled to an automatic discharge from bankruptcy on the expiration of three years unless discharged by the Court before that date, or an objection has been filed with the Registrar in Bankruptcy.

In 1990-91 there were 1,653 bankruptcies declared, an increase of 331 over the previous year, and 326 more than the number of bankruptcies declared in 1988-89.

*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 and the relevant State agency is the Office of Fair Trading, a Division of the Department of Public and Consumer Affairs.

Consumer law in South Australia has been consolidated and rationalised to provide a greater range of sanctions against unfair trading practices, and to place greater emphasis on the promotion of fair trading. Commonwealth provisions dealing with misleading and deceptive conduct are incorporated within South Australian legislation, and extend to cover all businesses.

*Equal Opportunity Commission*

The Commissioner administers:

- *Equal Opportunity Act 1984*
- *Sex Discrimination Act 1984 (Cwlth)*
- *Racial Discrimination Act 1975 (Cwlth)*

The objectives of the Equal Opportunity Commission are as follows:

- To promote equality of opportunity and an understanding of its principles and practices among the citizens of South Australia.
- To foster and encourage informed and unprejudiced attitudes in the community with a view to eliminating discrimination on the ground of sex, sexuality, marital status, pregnancy, race, physical or intellectual impairments, and age.
- To provide effective redress for unlawful discrimination on the grounds of sex, sexuality, age, marital status, pregnancy, race, physical and intellectual impairment; and for sexual harassment.
- To encourage the application of equal opportunity and human rights principles and practices in employment, education, the conferral of qualifications, the provision of goods and services, accommodation, advertising, the disposal of land, and in clubs and associations.

*Legal Services Commission*

The Legal Services Commission, constituted under the provisions of the *Legal Services Commission Act 1977*, is responsible for the provision of legal assistance in South Australia.

The Commission is an independent statutory body with representation from a variety of groups in the community. The staff of the Commission provide legal advice in any matter. More extensive legal representation is provided by the private legal profession on assignment, as well as by staff. Legal assistance of a substantive nature is subject to a means test and to other guidelines laid down from time to time. However, legal advice in the form of a short interview is free.

*Public Trustee*

The Office of Public Trustee was established in 1881 and is regulated by the *Administration and Probate Act 1919*. The Public Trustee provides a service to the public by preparing wills, administering estates, and protecting 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 the trustee of any disposition of property creating a trust.

Trust Funds have grown from \$2,800 (£1,400) in 1881 to \$288 million at 30 June 1991.

Wills which appoint the Public Trustee as executor and which are held in safe custody number more than 152,000. Approximately one-third of all deceased estates in South Australia are administered by the Public Trustee.

### Police and correctional services

#### *Australian Federal Police*

The Australian Federal Police, established in 1979, is the major law enforcement agency of the Commonwealth Government. It investigates breaches of Commonwealth law and also has the responsibility for all policing in the Australian Capital Territory. Its priority areas are investigation into drug trafficking, all organised crime, major fraud and specific references from the Government (e.g. organised crime). It assists Royal Commissions as well as participating in joint State Police Force and/or other law enforcement agency task forces. Its members are stationed in every State/Territory, as well as in many overseas locations.

#### *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, four Assistant Commissioners and a Director have been introduced. Each Assistant Commissioner has control of one of four major areas of the Force which have been designated Operations, Personnel, Crime and Services. The Director has control of the fifth major area of the force designated as Corporate Services Command.

Police Personnel, at 30 June

<i>Personnel</i>	<i>1989</i>	<i>1990</i>	<i>1991</i>
Executive officers (a) .....	45	49	50
Inspectors .....	77	77	74
Sergeants .....	565	631	632
Constables (b) .....	2,878	2,893	3,000
<i>Total</i> .....	<i>3,565</i>	<i>3,650</i>	<i>3,756</i>

(a) Includes superintendents.

(b) Includes trainees, cadets, probationary constables and police aides.

The objectives of the South Australian Police Force include the preservation of civil order; the protection of persons and property; the prevention or reduction of the incidence of crime; the provision of assistance to the community on general police matters; the provision for the general security of the State, and the provision of emergency services in disaster situations.

#### Offences

The following crime statistics are compiled from Criminal Offence Reports which were made out for offences which became known to the police during the years 1988-89 and 1989-90 and should be regarded only as an indication of changing levels of criminality.



Selected Offences Reported or Becoming Known to the Police  
1988-89 and 1989-90

Offence type	Number of offences		Number of known offences cleared 1989-90	Number of offenders involved in cleared offences 1989-90
	1988-89	1989-90		
Homicide .....	98	81	63	61
Assault (excluding sexual assault) ...	9,590	10,400	6,879	4,661
Sexual offences .....	1,852	2,055	1,067	528
Other offences against the person ....	709	874	444	244
<i>Total offences against the person ...</i>	<i>12,249</i>	<i>13,410</i>	<i>8,453</i>	<i>5,494</i>
Break and enter .....	38,602	42,441	2,968	3,248
Fraud, forgery, and misappropriation .	7,045	6,197	3,371	1,086
Receiving and unlawful possession ..	1,729	1,753	1,727	1,302
Motor vehicle theft .....	11,886	13,046	1,485	1,672
Larceny from a motor vehicle .....	14,634	15,206	932	892
Larceny of bicycles .....	5,769	5,380	354	184
Shop theft (shoplifting) .....	6,363	7,083	6,368	5,741
Other theft .....	30,928	31,208	2,775	1,560
<i>Total break and enter, fraud, and other offences involving theft ....</i>	<i>116,956</i>	<i>122,314</i>	<i>19,980</i>	<i>15,685</i>
Robbery and extortion .....	727	835	199	233
Property damage and environmental offences .....	21,239	23,244	4,114	3,813
Offences against public order .....	22,990	26,174	18,088	16,372
Drug offences .....	2,736	3,090	3,032	2,635
Drink driving and related offences ...	9,103	8,360	8,359	8,343
Other offences .....	1,794	1,752	1,040	837
<b>All offences .....</b>	<b>187,794</b>	<b>199,179</b>	<b>63,265</b>	<b>53,412</b>

### Crime prevention

As a crime prevention initiative the Police School Education Program continued to expand within high schools and at 30 June 1991, over 50 programs were operating.

Blue Light activities for youth also increased. Thirty-nine disco branches located throughout the State conducted 140 discos, with 36,000 youths attending. Twenty Blue Light Youth Camps were run during the year, while the Police Deputy Clubs for primary school aged children continued its activities.

The demand for Neighbourhood Watch continued and at 30 June 1991, there were 319 Neighbourhood Watch areas in the State, with over 200 areas awaiting establishment. There are currently 34 Rural Watch areas operating within the State.

### Correctional services

#### Prisons

There are eight gaols and prisons administered by the South Australian Department of Correctional Services. In addition, police prisons situated mainly in the more remote country areas serve as short-term detention centres for both males and females on behalf of the Department of Correctional Services. James Nash House, situated in the grounds of Hillcrest Hospital, accommodates the criminally insane and those undergoing short-term psychiatric care and assessment. This hospital is administered by the Department

of Correctional Services and staffed by trained medical personnel from the South Australian Health Commission and provides specialised treatment programs for both males and females.

A Home Detention Scheme was introduced in 1987. This allows selected prisoners to complete up to six months of their sentences at home. Prisoners involved in this scheme are kept under close surveillance and may only leave their homes for employment or health reasons.

#### Prisons : Numbers of Sentenced Persons Received by Major Offence Type

Major offence type	1987-88		1988-89		1989-90	
	Persons	Per cent	Persons	Per cent	Persons	Per cent
Homicide .....	17	0.5	18	0.6	19	0.6
Assault .....	276	7.6	237	7.6	250	8.5
Sexual assault .....	45	1.2	47	1.5	48	1.6
Robbery and extortion .....	61	1.7	55	1.8	41	1.4
Fraud and forgery .....	142	3.9	86	2.8	83	2.8
Theft, break and enter .....	481	13.2	482	15.5	471	16.0
Property damage .....	73	2.0	62	2.0	74	2.5
Driving and related offences .....	978	26.8	828	26.6	752	25.6
Drink driving .....	444	12.2	347	11.1	304	10.4
Drugs .....	162	4.4	159	5.1	115	3.9
Against good order .....	345	9.4	279	9.0	242	8.2
Offensive behaviour .....	226	6.2	162	5.2	129	4.4
Breach of recognizance, suspended sentence, parole .....	338	9.3	283	9.1	324	11.0
Other .....	61	1.7	72	2.3	84	2.9
<i>Total</i> .....	<i>3,649</i>	<i>100.0</i>	<i>3,117</i>	<i>100.0</i>	<i>2,936</i>	<i>100.0</i>

#### Community Corrections

The Community Corrections Division is responsible for providing supervision and social casework services to probationers and parolees. Probation officers provide a professional social work service, including a wide range of treatment and management alternatives for offenders. The Community Service Order Scheme, initiated and administered by the Division, provides participating courts with a further alternative to imprisonment. A Fine Option Scheme allows offenders, who have been fined and are unable to pay, to work out the amount of the fine in community service work as an alternative to prison.

#### Public safety

##### State Emergency Service

The South Australian State Emergency Service (SES), formerly the Civil Defence Organisation, was established in 1961 to provide protection for the public against the effects of wartime hostilities. As the threat of war has diminished, the emphasis has shifted progressively towards involvement in counter-disaster measures. The SES is identified as a functional service under the State Disaster Plan.

A Director, who is also a member and Executive Officer of the State Disaster Committee, leads the Service, and is supported by a small permanent staff at State Headquarters in Thebarton, and ten Divisional Offices. Permanent officers are involved in the preparation of counter-disaster plans at all levels, while volunteer members respond to emergency situations on a day-to-day basis throughout the State. These volunteers undertake training to develop their counter-disaster skills. In the main, the courses are conducted by permanent SES staff in the State, but some selected persons attend courses conducted at the Australian Counter Disaster College, Mount Macedon, Victoria.

*Road accident prevention*

In September 1989, the Highways Department and the Motor Registration and Road Safety Divisions of the Department of Transport were amalgamated to form the Department of Road Transport. This new department was made responsible for the development of road safety policy through one of its organisational units, the Office of Road Safety.

In addition, a Road Safety Management and Coordination Group was established comprising chief executives from Road Transport, Education, and Police Departments, South Australian Health Commission, Office of Transport Policy and Planning and a nominee of the Local Government Association to coordinate a government-wide effort in road safety.

The Road Safety Advisory Council has remained as an advisory body to the Minister of Transport.

Road safety programs are implemented by the Department of Road Transport, local government authorities, Police and Education Departments, South Australian Health Commission, and the National Health and Medical Research Council's Road Accident Research Unit.

*Fire services**Metropolitan Fire Service*

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 1981, the Fire Brigades Board was dissolved and the South Australian Metropolitan Fire Service Corporation was established.

The Corporation maintains suitably equipped fire brigades in proclaimed fire districts in the Adelaide Metropolitan Area and in country towns. At 30 June 1990 there were thirty-nine fire brigade stations of which twenty were metropolitan and nineteen were country. During 1989-90 these brigades received 12,502 calls. Some of these brigades are staffed by permanent personnel and others by auxiliary firefighters.

The expenses and maintenance of brigades are financed in the proportions, three-quarters by insurance companies, one-eighth by the State Treasury and one-eighth by the municipalities and district councils serviced. In 1989-90 the respective amounts provided by these bodies were \$30.2 million, \$5.0 million and \$5.0 million.

*Country Fire Service*

The South Australian Country Fire Service (CFS) is an organisation established under the *Country Fires Act 1989* to protect life and property by providing a service for the protection from, and the prevention and suppression of, fire and other emergencies.

CFS services an area of 886,000 square kilometres, or approximately 90 per cent of South Australia.

Volunteer members in 474 registered brigades report through a Group and Regional command structure.

## South Australian Country Fire Service

<i>Particulars</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
Strength of service at 30 June:			
Affiliated organisations .....	519	519	474
Volunteer members .....	19,600	20,000	19,818
Fires attended in year ended 30 June:			
Structural/vehicle .....	583	647	774
Rural .....	2,839	2,223	3,381
Area destroyed in bushfires (ha) .....	1,768,200	71,300	62,200
Financial losses (\$'000);			
Structural/vehicle .....	34,000	14,620	10,717
Rural .....	42,000	11,000	9,940
Total brigade callouts .....	5,526	5,004	7,316

**National Safety Council**

The National Safety Council of Australia SA Division Limited is a not-for-profit, non-government, independent, tripartite organisation. Its activities are controlled by a Board of Directors representative of industry, unions, government and the community.

The Council's objectives are to encourage and work for the spread of safety awareness practices throughout Australia, and to be an authoritative source of information, opinion and advice to industry, unions, governments, media and the community.

The Council provides services on a fee-for-service basis in all areas of Health and Safety Consultancy and Training. Training programs and seminars are offered and the sale of posters, publications and materials covering all facets of safety are available. Additionally, the Council offers the NSCA Diploma in Occupational Health & Safety Management.

Finance is derived from membership fees, and the sale of consultancy and training services to members. The Community Safety department receives a small grant from the South Australian State Government to assist in community safety projects.

**Water safety and life saving****Royal Life Saving Society**

The Royal Life Saving Society was established in South Australia in 1909 as a branch of The Royal Life Saving Society Australia. From 1952 it has assumed responsibility for inland waters. It specialises in the teaching of water safety, survival swimming, lifesaving and resuscitation techniques.

The voluntary work of the Society is funded mainly by its own fundraising, donations, sponsorships, membership fees and a government grant.

**Surf Life Saving Association**

The South Australian State Centre of the Surf Life Saving Association of Australia was formed in 1952, with the prime objective of supplying a public service of surveillance and rescue patrols at Adelaide's beaches.

The Association has eighteen affiliated clubs with a membership joining age of 7 years. The gaining of the Surf Bronze Medallion at 15 years allows men and women the opportunity of serving the community as patrolling members at their respective beaches during the summer season, which is normally from the beginning of November until the end of March.

The Association's activities are mainly financed by its own fundraising plus assistance from the three tiers of government.

**'Learn to Swim' Campaign**

Vacation swimming classes organised by the Education Department were first established in their present form in January 1956. In January each year instruction is provided at more than 250 centres at swimming pools and beaches throughout the State for a period of nine days. Classes are attended by more than 45,000 children from 5 to 18 years of age. The major aim of the program is to impart water safety knowledge, teach survival and safe swimming and to enable children to assist with a rescue by the safest and quickest method available.

**Further references**

Additional information may be found in the following ABS publications:

- 4502.4 *Higher Courts: Criminal Matters, South Australia*
- 4504.4 *Crime and Prevention of Crime in the Community, South Australia*
- 4505.4 *Lower Courts: Criminal Matters, South Australia*
- 4506.0 *Crime Victims Survey, Australia*

## 5.2 CULTURE AND RECREATION

### The performing arts

*Adelaide Festival Centre* The Adelaide Festival Centre is South Australia's major performing arts complex and a major tourist attraction.

Completed in 1975, it contains a 1,978-seat auditorium (complete with hydraulic lift organ) which is suited to both proscenium arch and concert hall presentations. In addition, it offers a highly versatile, 600-seat drama theatre, a performance space suited to regular theatre and cabaret presentations, and a 1,000-seat outdoor amphitheatre. The Centre has two major restaurants and a number of gallery spaces for the display of visual arts.

The Centre is a major theatrical entrepreneur in Australia, and its set construction division built the complex sets for a number of large productions, including *Cats*, *Les Misérables*, *Chess*, *The Phantom of the Opera* and *The King and I*.

The Centre is the focal point for the biennial Adelaide Festival of Arts, and houses the administration of the Festival. Between Festivals, the Adelaide Festival Centre presents more than 400 performances per year, generating more than half of the year's average attendances at the complex, totalling approximately 750,000 patrons.

*Adelaide Festival of Arts* Founded in 1958 and first held in 1960, the world-renowned biennial Adelaide Festival has become Australia's major international festival of the performing, visual and literary arts.

The Festival is based in the Adelaide Festival Centre theatre complex, but utilises some forty venues in and around the city to present its three-week program. This regularly includes 500 performances, thirty art exhibitions and seventy Writers' Week guests, and features the works of celebrated Australian and international artists, companies and writers.

The Adelaide Festival has proved to be a major tourist attraction for interstate and overseas visitors, with an average of twenty per cent of its 780,000 attendances (March 1990 results) attributed to non-residents. The next Festival will be held from February 28 to March 21, 1992.

*Adelaide Festival Fringe Inc.* The Adelaide Festival Fringe, which occurs biennially, began operations in the 1960s, providing at Festival of Arts time a forum for artists not included in the main Festival events. It existed for many years in various forms on a limited budget but, after incorporation in 1975, received assistance from the South Australian Department for the Arts. The Fringe has undergone spectacular growth in recent years, aided by financial support from a number of corporate sponsors.

Since 1984, the Fringe has operated from premises in the Living Arts Centre and this site has been the main focus of its Festival activities.

The Fringe is recognised as the major open access forum for new and developing arts in Australia, and presents the best of all art forms – drama, dance, visual art, comedy, cabaret, music, multicultural arts and community events.

During the 1990 Festival, the Fringe assisted 168 organisations representing over 1,040 individual artists, presented over 1,144 productions and exhibitions with an estimated 286,645 attendances.

The Fringe now operates the Lion Theatre and Bar, at the Living Arts Centre between Festivals. The Lion Theatre and Bar offers a unique, versatile venue suitable for the staging of a wide range of events – drama, music, dance, cabaret, workshops, seminars, conferences, parties and exhibitions.

The Fringe also produces the Australian International Workshop Festival. This is a two week celebration of international master classes, conducted by some of the world's most influential and creative artists. The inaugural festival was held in April/May 1991 and will be held at that time every two years.

#### *Come Out Festival*

Every two years since 1975 South Australia has played host to a festival of arts for young people. Come Out 91, 6–18 May, was the ninth Festival of the creative, performing and visual arts by, for and with young people at primary and secondary levels. The Festival's objectives of excellence, access and participation are well provided in each area of Aboriginal art, dance, literature, music, theatre and visual art/craft. Together with Community Come Out and country and metropolitan touring it is estimated that more than 400,000 South Australians take part in the Festival.

#### *Other performing arts*

The State Theatre Company, established in 1965, became a statutory body in 1972. The Company, based at the Playhouse, Adelaide Festival Centre, is South Australia's leading drama company presenting each year a major season of plays, including classics, modern drama, new works from overseas and new Australian writing. The Company tours country centres from time to time.

Its young people's theatre wing, Magpie Theatre, performs in schools, theatres and community venues throughout South Australia. In 1989–90, State Theatre and Magpie Companies gave 395 performances to a total audience of 118,000.

The Adelaide based Australian Dance Theatre is South Australia's only professional dance company. Founded in 1965, it aims to develop contemporary dance in Australia and provides opportunities for developing artists in this field. The company performs regularly in Adelaide and South Australian regional areas and tours interstate and overseas. As is the case with dramatic theatre, several dance groups perform regularly in the State.

The State Opera of South Australia is one of the State's leading performing arts organisations. It was established in 1976 and receives State Government subsidies as well as private sponsorship. The company has pioneered many major works in Australia and also presents productions for the Adelaide Festival of Arts. In August 1991, the Company produced the Australian stage premiere of *Elektra* by Richard Strauss. In March 1992, it will present the Australian premiere of John Adam's *Nixon in China*, for the Adelaide Festival of Arts. The State Opera uses singers and designers of international renown and is supported musically by the Adelaide Symphony Orchestra.

A wide range of professional and amateur theatre companies and dramatic societies operate in Adelaide and regional centres, performing original and established works. Live performances of music catering to a range of tastes, from symphony, chamber and choral to ethnic, folk, jazz and pop, are to be heard throughout the year at a variety of venues.

#### *Regional Trusts*

The four Regional Trusts (under the *Cultural Trusts Act 1988*) serve the cultural needs of their regions. Theatres have been built at Mount Gambier, Port Pirie, Renmark and Whyalla. Regional Arts Development Officers are employed to provide arts-related information and advice to assist development of the regions cultural activities.

The Regional Cultural Council provides a coordination focus for the Trusts, manages a touring programme, and provides assistance for locally based arts initiatives and creative projects in the regions.

**Carclew Youth  
Performing Arts  
Centre**

Carclew provides a focus for all arts activities for young people, advises the government on youth arts policy, and, through the South Australian Youth Arts Board, allocates grants for companies and individuals working with or for young people.

It also has projects of its own, including *Lowdown*, the national youth arts magazine, Harlequin Recording and Sound Studio, dance and drama workshops, and seminars.

Carclew operates the State Young People's Theatre (the *Odeon* at Norwood) and promotes professional performances for children and young people.

Additionally, there is a comprehensive Youth Arts Library and Printery housed at Carclew to support all youth arts practitioners.

**Adelaide  
Entertainment  
Centre**

The Adelaide Entertainment Centre was opened on 20 July 1991. With a seating capacity of 12,000 the centre can stage large musical entertainment and indoor sports events which previously would have by-passed Adelaide because of lack of a suitable venue. Among the first events to be staged were the Squash World Championship, the Great Moscow Circus and the Jayne Torvill and Christopher Dean ice-skating spectacular.

**Visual arts**

**Art Gallery of  
South Australia**

The Art Gallery of South Australia is a Division of the South Australian Department for the Arts and Cultural Heritage. Its operations are assisted by the Art Gallery of South Australia Foundation, which helps raise substantial funds towards major acquisitions, and by the Friends of the Art Gallery of South Australia. The Gallery's annual program of changing exhibitions was supported in 1990 and 1991 by a major sponsorship from Santos Ltd.

The Gallery's holdings include paintings, sculptures, prints, drawings, photographs and decorative arts. The collections are broad and include a fine representative selection of Australian, European and Asian art, including one of the finest South-East Asian ceramic collections. Holdings have been enriched over time through bequests and gifts, while the State Government makes an annual grant to the Gallery for the purchase of works of art.

Works by established European and Australian artists are always on display as well as changing displays of contemporary art. South Australian art is well represented and is featured throughout the Gallery's displays. Besides its own exhibitions, the Gallery's programming includes major national and international touring exhibitions.

**Other visual  
arts venues**

Other galleries are operated by a number of organisations and individual proprietors in both metropolitan and country areas including in Adelaide, the Adelaide Festival Centre Trust, the Royal South Australian Society of Arts, the Contemporary Arts Centre and the Experimental Art Foundation.

The Jam Factory Craft Centre comprises five interrelated activity areas for the development and support of the crafts in South Australia. These are: training workshops (in hot blown glass, ceramics, metal and furniture design); low-rental tenant workshops; a retail craft shop; exhibition galleries; and craft information services, which are shared with the Crafts Council of South Australia (an independent tenant agency).

The aims of the Jam Factory Workshops Inc. are: to maintain hand processing traditions and skills; craft 'training through production' leading to the trainees establishing their own viable small businesses; promotion of public appreciation of the crafts; and market development for the crafts in South Australia.

## Media

### South Australian Film Corporation

The South Australian Film Corporation (SAFC) was constituted under the *South Australian Film Corporation Act 1972*. The SAFC has the sole right to produce or arrange production of films for, or on behalf of, the State Government. It can also produce films on its own behalf, for other organisations or through co-production and investment arrangements with other producers.

Feature films for cinema and television release which have been produced by the SAFC have received critical acclaim in Australia and overseas. The SAFC has also produced many short films for commercial sponsors and State Government departments and instrumentalities, many of which have won Australian and international awards.

SAFC operations and staff are centred at Hendon in a complex which comprises complete film production facilities of a fully professional standard and the SA Film and Video Centre. To encourage the industry in South Australia, the SAFC is able to use its facilities in local and interstate productions.

### Other film production and festivals

A number of independent film production houses exist in Adelaide and produce material ranging from advertising videos to feature films. *Frames: Festival of Film and Video* held its inaugural season as part of the 1984 Adelaide Festival Fringe. Since then it has grown into a major event to become Australia's leading Festival for Australian independent film and video. It is now organised by the Media Resource Centre, a non-profit cultural body devoted to the development of an active film culture.

### Radio

The following table provides a summary of radio stations operating in South Australia at 30 June 1991.

Radio Stations : Type and Location, at 30 June 1991

Operator	Amplitude Modulation (AM)		Frequency Modulation (FM)	
	Metropolitan Adelaide	Country	Metropolitan Adelaide	Country
	Commercial .....	2	6	(a)4
Public .....	2	—	3	6
Australian Broadcasting Corporation .	3	8	2	24
<i>Total</i> .....	7	14	9	30

(a) One commercial FM station operates at two different frequencies and is therefore counted twice.

### Television

The Adelaide area is served by an Australian Broadcasting Corporation (ABC) station, a Special Broadcasting Service (SBS) station and three commercial television stations. Forty-one ABC stations and thirty-seven commercial television stations service regions outside the metropolitan area.

The following table shows the composition of television programs shown by the ABC and commercial stations in Adelaide during 1989-90.



## Composition of Television Programs, Adelaide (VHF) Stations, 1989-90

Category	Commercial per cent (a)	National per cent (a)
Television drama .....	25.0	8.7
Cinema movies .....	14.0	4.0
Children's .....	14.3	15.8
News .....	7.6	3.6
Current affairs .....	2.9	4.7
Documentaries .....	1.5	4.4
Education .....	(b)	17.5
The Arts .....	(b)	2.5
Religion .....	0.3	1.0
Information .....	3.8	3.3
Sport .....	11.9	13.3
Quiz, panel and games .....	1.9	0.2
Light entertainment .....	16.5	17.0
Other .....	(b)	4.0
<i>Total</i> .....	<i>100.0</i>	<i>100.0</i>

(a) Percentage of transmission (6 a.m. to 12 midnight) in each category. (b) Less than 0.1%.  
Source: Australian Broadcasting Tribunal.

### The Press

Since the mid-1920s the present system of three major Adelaide newspapers – one morning daily, one evening daily and one weekend publication – has operated.

*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 75 per cent of its circulation in the metropolitan area and 25 per cent 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. Eighty per cent of sales of *The News* are in the Adelaide metropolitan area.

*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 26 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.

There are about thirty newspapers operating in the State's country areas. Of those still existing *The Border Watch* (Mount Gambier) in 1861 and *The Bunyip* (Gawler) in 1863 were first to appear. District papers printed by Messenger Newspapers Pty Ltd, containing items of local interest, are circulated in a number of suburbs of Adelaide, and a number of community newspapers are published.

A literary monthly, the *Adelaide Review*, is available free of charge through various outlets and has an audited circulation of over 36,000.

### Libraries

#### State Library of South Australia

The State Library of South Australia is a Division of the Department for the Arts and Cultural Heritage and is of major significance in meeting present and future information and reading needs of South Australians.

The State Library's services focus on three discrete areas – Research and Information, Heritage and Culture, and Collections and Community. These services are based primarily on the collections of the Bray Reference Library and the Mortlock Library of South Australia. The community service programme delivers services to local communities in areas of health, technology and community arts as well as providing special services to Aboriginal people in South Australia.

The State Library of South Australia is governed by the Libraries Board of South Australia which was established to develop and support free library services, to promote cooperation between libraries and to ensure that the community has access to adequate research and information services.

Since 1878, legislation has required that copies of all copyright items published in South Australia be deposited in the State Library. This material, including private archival records, forms the collection of the Mortlock Library. The main objectives of the Mortlock Library are: to select, acquire, secure and preserve recorded information in a variety of formats to document the people, places, events and development of South Australia; and to assist persons and agencies using the collection through the provision of an effective reference service.

The Bray Reference collection comprises about one million items (half of them monographs), with newspapers, periodicals, maps, photographs, audio-visual materials and computerised data bases on CD-ROM forming the remainder of the collection.

The collections and services provided by the State Library of South Australia are available to the general public.

### Public libraries

The Public Libraries Branch of the State Library supports the establishment and promotes the use of public libraries. It administers subsidies for public library operations by providing catalogued bookstock, other library materials and consultancy services on library operations. It also encourages cooperation between different information services, and is responsible for the provision of community information through public libraries and independent centres.

In June 1990, 118 authorities were operating 135 public libraries, including 45 school/community libraries and 14 depots and 11 mobile libraries under the provisions of the *Libraries Act 1982*.

#### Local Public Libraries

Year	Libraries at end of year	Registered readers	Items loaned	Stocks at end of year
1985-86	124	527,700	12,035,000	1,982,000
1986-87	128	589,800	12,638,000	2,131,000
1987-88	132	601,000	13,015,951	2,280,000
1988-89	137	744,710	13,356,222	2,319,235
1989-90	135	663,045	13,292,240	2,426,392

### Other libraries

Significant specialist libraries are held by tertiary institutions. For example, the University of Adelaide has an extensive law library, while the University of Adelaide and Flinders University have branch libraries for medicine. Many organisations, both public and private, have specialist libraries catering for their particular interests. Parliament House is served by its own Parliamentary Library.

*State records*

State Records (formerly the Public Record Office of South Australia) is a Business Unit of the Department of State Services and is the official repository for the public records of South Australia. Under its Charter, the unit provides records management advice, records storage and retrieval to all public sector agencies, as well as its archival and public reference functions.

**Museums***South Australian Museum*

The South Australian Museum is a Division of the Department for the Arts and Cultural Heritage. The aim of the Museum is to increase knowledge and understanding of our natural and cultural heritage. The Museum collects and preserves appropriate specimens, artefacts, documents and other materials; undertakes research associated with the collections; and, interprets the collections for the public through exhibitions, publications, audiovisual material, educational activities and information services.

The Museum has a wide representation of disciplines, but its main work is in the fields of anthropology, natural history and geology. The research of its social scientists primarily involves the study of Australian Aboriginal culture. The work of its natural scientists involves the identification, classification, description and study of animals and minerals. The Museum's scientific staff are available for consultative projects and their expertise is sought worldwide.

Many of the Museum's collections are among the finest in existence. The Museum mounts permanent and temporary exhibitions which are visited by more than 500,000 people each year. An Education Service and travelling education exhibitions ensure that children throughout the State have access to the Museum's resources. A unique Information Centre answers queries regarding natural history and anthropology. The Museum Shop is a commercial enterprise which stocks a wide range of merchandise, much of which is produced by the Museum. The Museum has a specialist reference library available for public use. The Friends of the South Australian Museum support the work of the Museum and have been responsible for notable additions to the collections.

*Carrick Hill*

Carrick Hill was bequeathed to the people of South Australia in 1983 by Sir Edward and Lady Hayward. Carrick Hill is a Division of the South Australian Department for the Arts and Cultural Heritage, and opened to the general public in March 1986 as an art museum, botanic garden and park. The Tudor-style mansion houses a fine collection of twentieth century British art and sculpture, together with 17th century oak furniture. The gardens and surrounding park total 39 hectares and provide walks through English formal gardens, with specialist collections of heritage roses and apples. A sculpture park in an Australian bush setting gives generous views of Adelaide.

*The History Trust*

The History Trust of South Australia is a statutory authority, established in 1981, responsible for the management of several important museums, including the National Motor Museum, South Australian Maritime Museum, Old Parliament House, and the Migration Museum. The History Trust also oversaw the development of the Port Dock Station Railway Museum as a Bicentennial commemorative project.

The Trust has a Community History Unit which formulates policy relating to local and specialist museums, provides policy advice and information on historical matters to the community and all levels of Government, administers the Museums Accreditation and Grants Program and generally promotes history through publications, workshops, lectures and the mass media. The Museums Accreditation and Grants Program is designed to assist the development of local and specialist museums. A wide range of museums, often based on a particular theme or subject, can be found throughout the State – some are commercially run, others are the work of groups of dedicated volunteers.

The Trust's information services include advice on the location of historical source material, guidance on research techniques and contact addresses for historical societies and museums. There are over 300 museums, historical societies and National Trust branches in the State. The History Trust and the voluntary sector museums are estimated to attract over 700,000 visitors annually.

## Conservation and heritage

### *Natural environment*

The main authority responsible for the conservation of native vegetation and wildlife and the management of parks and reserves is the National Parks and Wildlife Service, a Division of the Department of Environment and Planning. At the end of June 1991 the Service was responsible for more than 241 natural areas covering a total of nearly 16.7 million hectares, or seventeen per cent of the total area of the State. Management plans set out the reasons for a park's existence, identify outstanding features and set out priorities for work programs, including pest control and fire management.

As part of its wildlife protection role, the Service administers a permit system to take, keep and trade native species; regulates hunting seasons and game quotas; and enforces the *National Parks and Wildlife Act 1972*. Scientific research projects and biological surveys also assist in the protection of land, vegetation and wildlife. Public involvement in parks is encouraged and community groups throughout the State carry out voluntary work in parks and reserves.

The Department of Environment and Planning's Division of Conservation and Land Management conserves, protects and manages South Australia's native vegetation outside the parks and reserves system. Controls on clearance and assistance for landholders are provided for under the *Native Vegetation Management Act 1985* and are administered by the Native Vegetation Management Branch.

Volunteer organisations and tertiary institutions also make a significant contribution to the conservation and study of the natural environment in South Australia.

### *Aboriginal heritage*

On 1 March 1989 the *Aboriginal Heritage Act 1989* was proclaimed in South Australia. This Act provides for the protection of sites and items of archaeological importance and cultural significance to Aboriginal people. Examples of Aboriginal heritage protected include prehistoric campsites, ceremonial grounds, cave paintings, rock engravings, ochre mines and canoe trees.

A Register of all known Aboriginal sites has been kept since 1967, and the Department of Environment and Planning's Aboriginal Heritage Branch consults extensively with Aboriginal people and communities in carrying out its responsibilities under the Act.

### *European heritage*

The State Heritage Branch of the Department of Environment and Planning administers the Government's programs for conserving South Australia's European cultural heritage under the *South Australian Heritage Act 1978*, the *Historic Shipwrecks Act 1981* and sections of the *Planning Act 1982*. There were 10 State heritage areas, 32 historic shipwrecks and 1,561 entries on the Register of State Heritage Items at the end of June 1991.

The Branch identifies heritage items and recommends them for registration. Advice is also provided on changes to registered items and the development of heritage sites for public use. Other important tasks include heritage surveys, maritime archaeology research and promotion of the recreational and educational value of historic shipwrecks.



The Adelaide tropical conservatory is the largest single-span glasshouse in the southern hemisphere.

*Tourism South Australia*



Lake Bonney near Barmera is a popular holiday destination.







Burnside Village, one of the many quality shopping centres in Adelaide.

*Department of Industry, Trade and Technology*

Ferry at Wellington is the last crossing of the River Murray before it enters Lake Alexandrina.

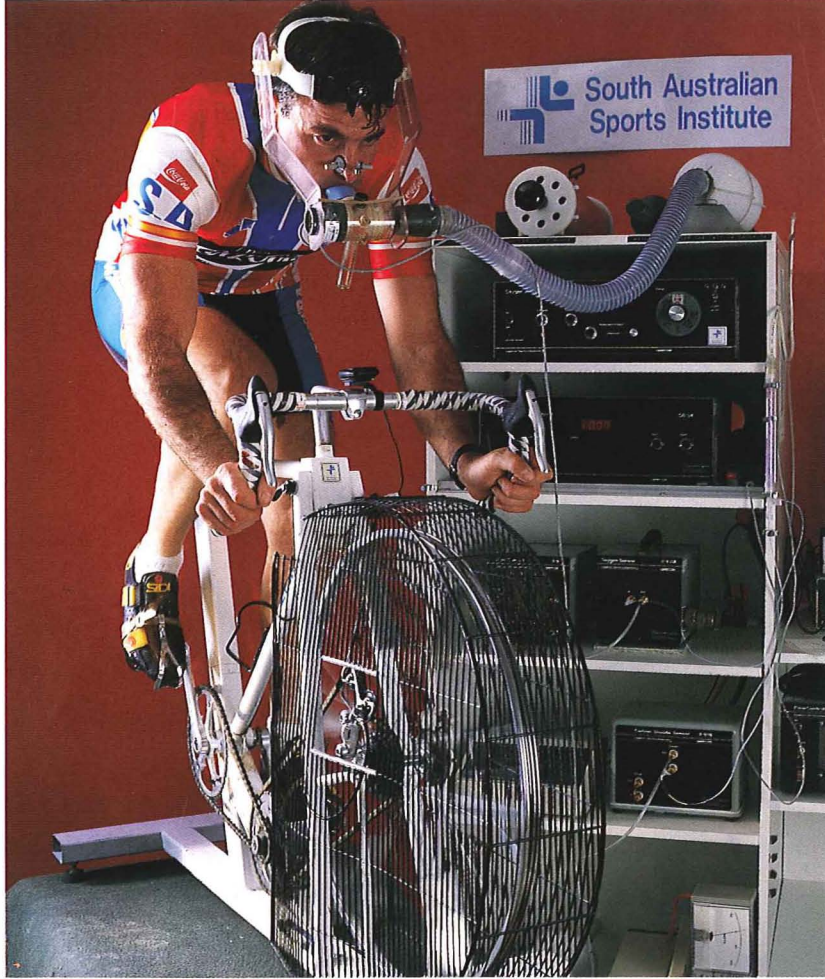
*Tourism South Australia*





Sports physiology is one area of concern of the South Australian Sports Institute.

*Department of Industry, Trade and Technology*



River Murray at Renmark.

*Tourism South Australia*







Glenelg foreshore with the Ramada Grand Hotel to the right.

*Department of Industry, Trade and Technology*

Sunday fish market at the North Arm fishing fleet wharf, Port Adelaide.





**Artlab Australia**

Artlab Australia (formerly known as the State Conservation Centre), specialises in the scientific conservation and preservation of works of art and items of historical, cultural and personal value.

A Division of the Department for the Arts and Cultural Heritage, it was established in 1985 to lead the preservation of the movable heritage of South Australia.

Artlab Australia operates the largest and most advanced conservation facility of its type in Australia. It contains a series of highly specialised laboratories – for the treatment of works on paper, books, paintings, textiles and other artefacts – a scientific analysis unit and fumigation chamber.

As well as being responsible for the conservation and preservation needs of the State's major cultural institutions, Artlab Australia provides a full commercial consulting and treatment service to businesses, community organisations and groups, and private individuals.

**The Botanic Gardens and State Herbarium**

The Botanic Gardens, established in 1855, now comprises the Adelaide Botanic Garden and Botanic Park in the City, the Wittunga Botanic Garden at Blackwood and the Mount Lofty Botanic Garden.

The Botanic Gardens are also responsible for the heritage garden 'Beechwood' at Stirling, maintaining the grounds of Government House and managing the Black Hill Flora Centre for applied research at Athelstone. There are also seven experimental plantations maintained in various parts of the State.

The Botanic Gardens fulfil important recreational, educational, information, advisory, and conservation and scientific roles, and the range of sites covered by the Gardens facilitates cultivation of a wide range of plants.

Important features of the Adelaide Botanic Garden include native plants from dry regions, cacti and succulents, the class ground, glasshouse displays and the wistaria arbours.

The Adelaide Botanic Garden also houses the Museum of Economic Botany, a specialist library, the State Herbarium and the Bicentennial Conservatory, the largest glasshouse in the Southern Hemisphere. 'Beechwood' contains the oldest conservatory in Australia and Mount Lofty Botanic Garden is highly regarded as a temperate Australian botanic garden. The Herbarium contains about 700,000 specimens and is the centre of all significant research on native plants of South Australia. It carries out important work in the identification and naming of plants and recording information on plant distribution as well as liaising with other herbaria and scientific institutions.

Although primarily serving the State, the organisation has strong links with other Australian and overseas botanic gardens, being active in promotion of commercial use of plant products.

Some 24,569 schoolchildren used the education service, over 27,000 inquiries were made of the advisory service and an estimated one and a half million visitors went to all gardens in 1990, including 947,921 to Adelaide Botanic Garden.

**Adelaide Zoo**

The Adelaide Zoo is administered by the Royal Zoological Society of South Australia Inc., a non-profit society with 3,000 members. Revenue for maintaining and developing the Zoo comes mainly from gate receipts, fund-raising through sponsorship programs and an annual State Government grant through the Department of Environment and Planning.

Adelaide Zoo has as its major goals public education and recreation and the conservation and study of rare and endangered species. Two full-time Education Officers conduct education programs for students and assist in interpreting the Zoo as a living classroom for visitors.

Although Adelaide Zoo is small in area (only 8 hectares) it contains an excellent collection of mammals, birds and reptiles exhibited in open-plan naturalistic habitats. Two walk-through aviaries, a children's zoo, a nocturnal house and reptile house are important features.

At 30 June 1990, 1,440 specimens of 310 species were on display. About 375,000 people visited the Zoo during the year ending 30 June 1990.

The Society also operates a 200-hectare special breeding centre for rare animals, particularly large herds of antelope and other grazing animals. This zoological park is at Monarto, 70 kilometres east of Adelaide, and is not yet open to the public.

## **Recreation and sport**

### *Recreational space and facilities*

The City of Adelaide is surrounded by 692 hectares of parklands with a variety of sporting facilities including golf courses, an aquatic sports centre, a racecourse, ovals, playing fields and tennis courts. The parklands also provide venues for other leisure pursuits such as art displays, pop concerts, open-air festivals, picnics and barbecues.

Facilities and open space for a wide range of sporting and leisure activities are located throughout the metropolitan area and most country towns have ovals and other sporting facilities.

### *Department of Recreation and Sport*

The Department of Recreation and Sport was established to support community efforts to develop and promote recreation and sporting opportunities for all South Australians. Most of its community services are supplied through the South Australian Sports Institute and the South Australian Recreation Institute.

The Department administers the Racing Act and provides office accommodation for State recreation and sport associations.

### *Sports Institute*

The main aims of the South Australian Sports Institute are the promotion and development of high performance, talent and developmental levels of sport in the State.

The Institute offers program support in the areas of sports funding, coaching, sports physiology and sport psychology.

There are 25 specific sports based at the Institute, with specialist coaches.

### *Recreation Institute*

The South Australian Recreation Institute is responsible for promoting active recreation opportunities for the South Australian community in partnership with a wide range of community organisations.

The Institute also focuses attention on the development of the Heysen Trail and other walking trails, the Mawson Trail and other cycling trails, playground development, recreational planning, professional development, program support to State recreation associations, fitness and public information including a library service.

### *Major sporting events*

A large number of sporting and recreational events take place in South Australia on a regular basis attracting local, interstate and overseas visitors.

A round of the World Formula One Grand Prix has been held in Adelaide each year since 1985. The event is staged on a street circuit in the eastern part of the City of Adelaide and surrounding parklands with a lap distance of 3.78 kilometres. The Australian Formula One Grand Prix is seen by some 120,000 people on the track and by a worldwide television audience.

Other major sporting events with more local appeal include the Oakbank Race Meeting at Easter, the Adelaide Cup in May and the South Australian National Football League Grand Final in October.

## Gambling

Legal gambling in South Australia is regulated by the Lottery and Gaming Act, the Soccer Football Pools Act, the Racing Act, the State Lotteries Act and the Casino Act.

At June 1990 there were 496 Lotteries Commission agents operating (mainly from shops) and total sales of the Commission for the year were \$199.0 million. At 30 June 1991 there were 69 bookmakers and 741 clerks and agents licensed with the Bookmakers Licensing Board operating on- and off-course betting on horse racing, harness racing, greyhound racing and foot running.

Totalisator betting takes place through the Totalizator Agency Board (TAB) and on-course totalisators operated by racing clubs. Off-course betting was provided on galloping, harness racing and greyhound meetings. In addition, betting was provided on Australian Rules Football and the Australian Formula One Grand Prix. The following table shows turnover in 1988-89, 1989-90 and 1990-91 for these forms of legal gambling in South Australia.

Legal Gambling Turnover  
(\$ million)

Type of gambling	Turnover		
	1988-89	1989-90	1990-91
TAB:			
Racing codes .....	393.3	463.8	491.7
Other sporting events .....	1.6	1.8	1.9
<i>Total TAB</i> .....	<i>394.9</i>	<i>465.6</i>	<i>493.6</i>
On-course totalisator .....	65.9	71.9	n.y.a.
Bookmakers:			
On-course .....	150.6	141.1	128.7
Off-course .....	9.3	9.4	7.1
<i>Total bookmakers</i> .....	<i>159.9</i>	<i>150.5</i>	<i>135.8</i>
Lotteries Commission:			
Instant Money Game .....	44.5	45.5	43.7
Saturday Cross Lotto .....	82.0	94.2	98.1
Wednesday Cross Lotto .....	35.8	40.0	36.2
Super 66 .....	5.7	6.8	6.6
Lotteries .....	0.3	0.3	-
Lucky Dates .....	0.7	0.3	-
The Pools .....	0.2	2.5	1.5
Club Keno .....	-	9.4	43.0
X Lotto Extra .....	-	-	8.8
<i>Total Lotteries Commission</i> .....	<i>169.2</i>	<i>199.0</i>	<i>237.9</i>
Small lotteries .....	77.3	83.4	n.y.a.
Soccer football pools .....	1.3	-	-
<b>Total</b> .....	<b>868.5</b>	<b>970.4</b>	<b>n.y.a.</b>

The Adelaide Casino, opened in December 1985, is part of the Adelaide Railway Station, within a restored building and the three levels of the Casino include approximately one hundred gaming tables.

It is operated by a company appointed by the Lotteries Commission to establish and operate a casino on its behalf. The monies received by the Commission from the Casino operator, representing unclaimed prizes, licence fees and 20 per cent of net gambling revenue, are paid in the proportions of one per cent to the Housing Improvement Fund with the balance to the Consolidated Account. In the year ending 30 June 1991 the amount paid to the Government was \$19 million.

## 5.3 HEALTH

### Commonwealth Government

The Commonwealth Government has a limited role in health care and is mainly concerned with the formulation of broad national policies, the provision of benefits and grants to individuals and organisations and the regulation of health insurance. Direct services are provided through the Repatriation General Hospital system and the Department of Community Services and Health through its Rehabilitation Units and Hearing Centres.

### South Australian Health Commission

Primary responsibility for the planning and provision of health services lies with the State Government, although policy is influenced by financial arrangements between the Commonwealth and State Governments, by South Australia's budget allocations and by arrangements with local governments and voluntary and private agencies.

The Health Commission maintains, operates and assists a wide range of health services including:

- hospital services;
- mental health services;
- services for the intellectually disabled;
- drug and alcohol services;
- services for Aborigines, the aged, the physically disabled, and children and families;
- community health and health promotion services;
- public health and occupational health services.

The Public and Environmental Health Division is responsible for occupational and environmental health administration. Services carried out in the regulatory, inspectorial, licensing and monitoring functions include Epidemiology and Infectious Disease Control; Health Surveying; Occupational Health and Radiation Control; Pharmaceutical and Hazardous Chemical Control; and the licensing and inspection of private hospitals, nursing homes and rest homes.

Every local government authority is authorised under Health and Food legislation to maintain regulatory responsibility for public health in its area. The Health Commission has general responsibility for the public health of the entire State.

### Health services

The control of hospitals in South Australia is vested in several authorities including the South Australian Health Commission, the Commonwealth Department of Veterans Affairs, religious and charitable organisations, local community committees and private owners. The following table shows selected staff and activity statistics for these hospitals.

## Selected Staff and Activities

<i>Item</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Average staff employed (a) .....	16,705.5	16,591.1	17,377.8
Occupied bed days ('000) .....	2,058	2,074	2,103
Bed occupancy rate (per cent) .....	70.8	73.1	73.9
Mean length of stay (days) .....	5.7	5.3	5.4

(a) Excludes private hospitals.

The following table shows the details of number of hospitals, hospital beds and separations from 1987-88 to 1989-90. Separations occur when an inpatient or same day patient leaves hospital to return home, transfers to another hospital or dies at the hospital; for psychiatric hospitals, however, the figures refer to admissions.

## Summary of Hospital Statistics

<i>Hospital</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
<b>Public:</b>			
<b>Recognised;</b>			
Number .....	81	81	79
Average no. of beds available .....	5,653	5,465	5,420
Separations .....	249,199	258,035	264,842
<b>Commonwealth;</b>			
Number .....	2	2	2
Approved beds .....	350	351	335
Separations .....	8,892	9,675	9,854
<b>Psychiatric;</b>			
Number .....	2	2	2
Average no. of beds available .....	787	776	742
Separations .....	4,282	4,528	4,652
<b>Private:</b>			
<b>General;</b>			
Number .....	34	34	33
Approved beds .....	2,047	2,048	2,048
Separations .....	100,269	102,721	107,519
<b>Psychiatric;</b>			
Number .....	3	4	4
Approved beds .....	131	208	208
Separations .....	2,089	1,696	4,914
<b>Total:</b>			
Number .....	122	123	120
Separations .....	364,731	376,655	391,781
Separations per 1,000 of estimated resident population .....	261.5	264.4	273.7

### Recognised hospitals

Recognised hospitals are those recognised under the Medicare agreement between the Commonwealth and State Governments in relation to the provision of hospital services. The agreement provides for financial assistance towards comprehensive hospital care, including medical treatment for eligible persons.

Of the recognised hospitals sixty-eight are located outside the Adelaide Statistical Division, providing services to local communities from Mount Gambier in the south east, to Oodnadatta in the north, and as far west as Cook. A small number of strategically placed hospitals provide some specialist medical and community health services to the region or sub-region they serve. An increasing number of hospitals are becoming involved in a variety of services including community health, and nursing home and hostel accommodation for the aged.

Of the 13 recognised metropolitan hospitals, five are teaching hospitals through association with a university medical school. These hospitals offer the super-specialities traditionally located at only one or two hospitals in each State (e.g. intensive care, burns units, cardiac surgery and neonatal intensive care). Recognised hospitals also provide State-wide services for casualty patients.

*Private hospitals*

At 30 June 1989 there were 38 private hospitals with 2,256 beds operating within South Australia, either as profit making ventures, or run by charitable or community organisations. Thirty of these hospitals are located within metropolitan Adelaide while the remaining seven are in country areas. Four of the metropolitan hospitals provide psychiatric care, one specialising in the treatment of adolescents. The remaining are general hospitals and offer a range of medical, surgical and obstetric services.

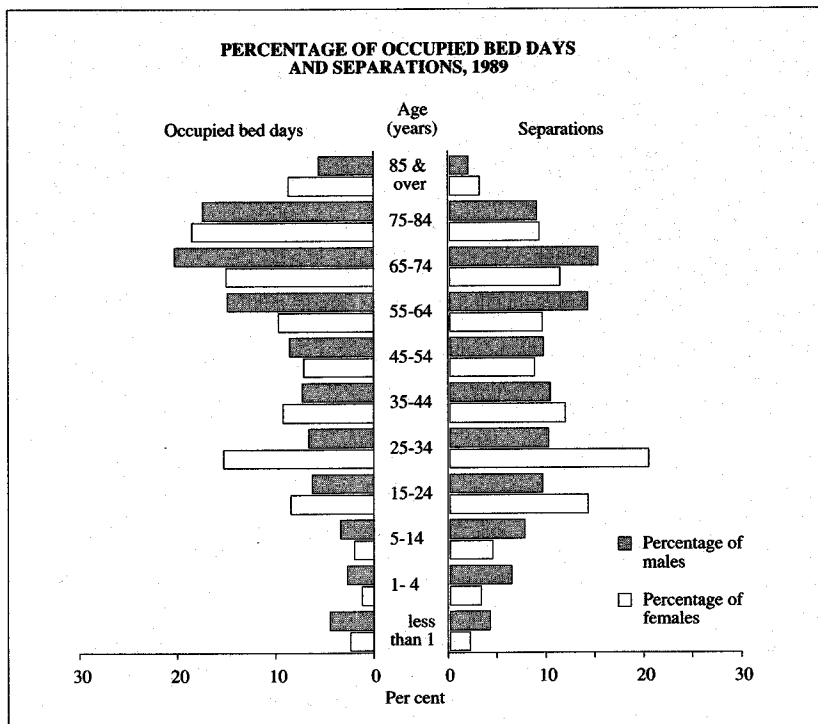
*Repatriation hospitals*

The Department of Veterans' Affairs maintains the Repatriation General Hospital, Daw Park, which is an acute care teaching hospital. It also has a Hospice Unit which is administered in conjunction with the South Australian Health Commission. Medical, surgical and psychiatric in-patient and out-patient treatment is provided for eligible veterans and dependants, serving members of the forces and under certain conditions, for non-eligible veterans and civilians.

The Repatriation Artificial Limb and Appliance Centre, also at Daw Park, serves the community's disabled under the Commonwealth Free Limbs Scheme.

*Hospital separations*

The remaining commentary and data in this section relate to separations from recognised and private hospitals only.



From the following table it can be seen that as people age they are more likely to require hospital services. This phenomenon is particularly noticeable for inpatients whose principal diagnosis is related to diseases of the circulatory system or neoplasms.

## Separations, Principal Diagnosis By Age, 1989

Principal diagnosis	Age (years)						Total (a)
	0-4	5-14	15-24	25-44	45-64	65 and over	
Infectious and parasitic diseases . . .	1,509	650	915	1,000	560	744	5,381
Neoplasms . . . . .	238	430	655	3,496	6,718	8,126	19,676
Endocrine, nutritional and metabolic diseases and immunity disorders . . .	220	262	362	880	1,041	1,526	4,293
Diseases of the blood and blood-forming organs . . . . .	86	261	248	466	690	1,570	3,322
Mental disorders . . . . .	54	194	859	2,681	1,745	2,030	7,571
Diseases of the nervous system and sense organs . . . . .	4,127	2,829	1,017	2,857	3,489	6,860	21,193
Diseases of the circulatory system . . .	71	82	293	2,718	9,477	16,472	29,156
Diseases of the respiratory system . . .	8,034	5,714	2,809	4,016	3,973	6,639	31,199
Diseases of the digestive system . . . .	3,341	2,129	6,538	10,118	10,443	9,764	42,348
Diseases of the genitourinary system . . . . .	574	667	2,824	10,691	7,331	4,704	26,796
Complications of pregnancy childbirth and the puerperium . . . .	3	61	11,318	22,530	34	-	33,996
Diseases of the skin and subcutaneous tissue . . . . .	339	492	1,188	1,815	1,466	1,768	7,071
Diseases of the musculoskeletal system, and connective tissue . . . . .	206	742	3,161	9,071	7,675	5,743	26,608
Congenital anomalies . . . . .	1,304	663	334	320	156	133	2,911
Conditions arising in the perinatal period . . . . .	3,012	6	9	9	1	1	3,040
Symptoms, signs and ill-defined conditions . . . . .	2,424	1,415	2,161	4,864	5,532	5,640	22,049
Injury and poisoning . . . . .	1,973	3,848	7,068	8,917	4,421	5,997	32,279
Supplementary (b) . . . . .	1,266	1,220	2,476	11,733	10,753	13,073	40,560
<i>Total principal diagnoses (c) . . . . .</i>	<i>28,823</i>	<i>21,697</i>	<i>44,341</i>	<i>98,484</i>	<i>75,677</i>	<i>91,022</i>	<i>360,329</i>

(a) Includes separations for patients whose age is not known.

(b) Includes haemodialysis treatment.

(c) Includes separations for patients whose principal diagnosis is not known.

Of the 360,329 inpatient separations included in the previous table, 183,356 (50.9 per cent) involved at least one surgical procedure. Details of principal procedures performed by length of stay of patient in hospital are shown in the following table. It should be noted that haemodialysis has not been included in operations on the cardiovascular system.

## Separations, Principal Surgical Procedures by Length of Stay, 1989

Principal procedure	Length of stay						Total
	Same day discharge	1 to 2 days	3 to 4 days	5 to 7 days	8 to 14 days	Over 15 days	
<b>Surgical procedures:</b>							
Nervous system . . . . .	2,027	2,257	758	836	1,030	520	7,428
Endocrine system . . . . .	3	17	68	192	73	17	370
Eyes . . . . .	2,540	2,594	1,607	654	293	112	7,800
Ear . . . . .	3,685	1,604	641	187	56	28	6,201
Nose, mouth, pharynx . . . . .	3,736	9,861	3,418	650	214	116	17,995
Respiratory system . . . . .	299	964	428	332	618	440	3,081
Cardiovascular system . . . . .	335	794	1,406	786	2,168	842	6,331
Haemic and lymphatic systems . . . .	279	246	157	155	209	210	1,256
Digestive systems . . . . .	15,458	4,782	4,447	5,043	4,710	2,219	36,659
Urinary tract . . . . .	1,123	3,024	1,066	893	908	417	7,431
Male genital organs . . . . .	2,379	1,446	918	933	482	190	6,348
Female genital organs . . . . .	5,926	8,069	1,081	2,031	2,627	285	20,019
Obstetric procedures . . . . .	3,887	2,164	3,688	8,579	3,921	469	22,708
Musculoskeletal system . . . . .	2,467	11,598	4,326	2,994	3,002	2,048	26,435
Breast . . . . .	255	911	630	340	351	80	2,567
Skin and subcutaneous tissue . . . . .	3,326	3,703	1,265	863	856	714	10,727
<i>Total . . . . .</i>	<i>47,725</i>	<i>54,034</i>	<i>25,904</i>	<i>25,468</i>	<i>21,518</i>	<i>8,707</i>	<i>183,356</i>

The more frequent procedures included operations on the digestive system (20.0 per cent of total procedures); operations on the musculoskeletal system (14.4 per cent); obstetric procedures (12.4 per cent), and operations on the female genital organs (10.9 per cent).

The average length of stay, as measured by the mean, was 3.9 days. However, the median length of stay, which more closely approximates a typical case, was 2.3 days. The principal procedures which were associated with median stays in hospital of more than 5 days included operations on the cardiovascular system and on the endocrine system, and obstetric procedures.

### *Nursing homes*

There are four State-funded nursing homes operating in South Australia, with the Julia Farr Centre at Fullarton being the largest of these. It provides accommodation and nursing care for those suffering from chronic disability or disease.

A further 157 nursing homes run by non-government groups provide an additional 6,482 nursing home places throughout the State. These largely cater for aged care, however there are a number which offer care for people with disabilities.

The total number of nursing home places in South Australia is 6,920.

### *Mental health*

Hillcrest and Glenside Hospitals are specifically psychiatric hospitals, but four recognised hospitals (Royal Adelaide, Queen Elizabeth, Modbury and Flinders Medical Centre) also operate psychiatric units. Four private hospitals operate as psychiatric hospitals. Hillcrest and Glenside Hospitals provide in-patient and out-patient services as well as crisis intervention.

Services at Hillcrest Hospital will be devolved over the next two years and the majority of acute care will be provided by general hospitals.

Close relationships have been established between the psychiatric hospitals and the community mental health clinics and services. The work of the two community clinics – Carramar and Beaufort – has increased in volume and scope, with increasing numbers of out-patient and day-patient attendances. Community services will be greatly enhanced throughout the State following the proposed devolution of Hillcrest Hospital. Emergency and community treatment teams will provide care on a regional basis. In addition, supported accommodation, vocational and rehabilitation services will be equitably distributed throughout metropolitan and country areas. The Child and Adolescent Mental Health Services operates from the Adelaide Children's Hospital and Flinders Medical Centre.

The rate of hospitalisation of seriously mentally ill people continues to decline. Community supports enable these people to live in the community and still continue to receive the care which they require.

### *Intellectually disabled*

The separation of services for people with an intellectual disability from services for people with a mental illness is well established in South Australia. The Intellectual Disability Services Council, which is incorporated under the South Australian Health Commission Act, is responsible for the planning and monitoring of services for people with an intellectual disability. Services are provided by Strathmont Centre, Minda Inc. and community services.

### *Drug and alcohol services*

Services for people experiencing drug and alcohol related problems are provided by the Drug and Alcohol Services Council (DASC). DASC is a State-wide organisation offering a range of preventative and treatment services. DASC also funds a number of non-government agencies to provide such services.

DASC undertakes community education programs on drug and alcohol issues and has a specialist library that is available to the general public. DASC's Monitoring, Evaluation and Research Unit provides statistical and research-based information on drug and alcohol use in the community and related issues.



### Community health

#### Services and centres

There are in excess of 50 community health centres and services located within South Australia. They provide a range of services including counselling, health promotion and education, home nursing and dental services.

Most centres are concerned primarily with improving the health status of a specific local community or a target group through illness prevention and health education, however there are a number which provide general services to the South Australian community.

#### Domiciliary care

Domiciliary Care Services were originally started in this State with the Woodville Domiciliary Care Service (later Western Regional Domiciliary Care Service) in July 1971. In 1989, 4 metropolitan and 14 country services operated within South Australia. In addition, a number of health care units throughout the State provided home based health care services. These included hospitals (through their outreach services) and community health centres and services.

At 30 June 1989 the Domiciliary Care Services had over 23,000 active clients registered, and in 1988-89, 616,000 client contacts were undertaken. The professional staff and paramedical aides offer the following range of services:

- geriatric consultation
- psychiatric consultation
- personal care
- home help
- respite care and sitter services
- artisans for minor home modifications
- provision of equipment and aids
- home dental care through the State Dental Service
- home nursing and terminal care in cooperation with the Royal District Nursing Society.

The Geriatric Assessment Program of the Commonwealth Department of Community Services and Health is funding the development of geriatric assessment teams which will undertake comprehensive, multi-disciplinary assessment of people requesting nursing home entry. In South Australia, these teams are associated with the Domiciliary Care Services, to ensure that people not approved for entry to a nursing home will receive the Domiciliary Care Services necessary to enable them to continue to live in their own private accommodation.

### Child, adolescent and family health

The Child, Adolescent and Family Health Service (CAFHS) is the largest community based child health service in South Australia and plays a major role in the provision of primary health care to families across the State.

CAFHS services are divided into a number of programs:

*Universal Services:* These programs provide services directed at every child as well as services available to all children, for example:

- Telephone Advisory Service (24 hours, 7 days per week, includes toll free number for country clients)
- Health Surveillance (primarily offered from centres across the State, including well-baby assessment, anticipatory guidance)
- Parent Education (a series of programs available to parents with children of different ages)
- School Screening (provided at school entry and Year 8 high school).

*Special and Resource Services:* These programs offer a more intensive service targetted at a particular group or community, for example:

- Torrens House (program is multi-disciplinary and offered either as an inpatient or day-patient service)
- Outreach (an intensive, short-term support to families and young children in their own home)
- Schools Program (a service to school students disadvantaged by reason of economic circumstances, language or intellectual handicap)
- Hearing Assessment and Medical Assessment (medical officers accept referrals from any of the screening programs)
- Child Health and Adolescent Health Units (provide advice to the community and other professionals on a range of child health issues).

These client services are supported by a Policy Unit, Project and Research staff, Information and Computing facilities, Staff development programs and an extensive library.

#### *Services for women*

The four women's community health centres continue to provide services which integrate clinical services, health education, health promotion and preventative health care for women.

In country South Australia, three regional women's health services have been established. These services are offered by the Adelaide Hills Community Health Service, which has its base at Mt Barker Hospital, by the Upper Spencer Gulf Women's Community Health Service, based at Port Augusta Hospital and serving the area from Port Pirie through to Whyalla, and by the Murray-Mallee Community Health Service based at the Murray Bridge Hospital.

Specific projects which will be undertaken by the South Australian Health Commission in 1991-92 include:

- the establishment of a Women's Health Council;
- the final stage of development of a Pregnancy Advisory Centre;
- expansion of country women's health services;
- the development of alternative birthing services;
- follow through on the implementation plan for the National Women's Health Policy for South Australia;
- expansion of the Mobile Mammography Screening Program for rural areas; and
- establishment of a State-wide Cervix Screening Program.

#### *Aboriginal health*

The Aboriginal Health Council (incorporated under the South Australian Health Commission Act) is an advocate for the Aboriginal Community of South Australia in health and health related matters. The Council is also formally responsible for the provision of advice on Aboriginal health matters to the South Australian Minister of Health through the South Australian Health Commission, and the provision of primary health care to those Aboriginal communities not served by independent Aboriginal Health Services (AHS).

AHS currently operate in metropolitan Adelaide, the Port Augusta region, the Anangu Pitjantjatjara Lands, Ceduna-Koonibba, and Yalata Maralinga. The expansion of services to the Port Lincoln, Port Pirie and Riverland communities is also under consideration as part of the National Aboriginal Health Strategy.

*Dental health*

Government funded dental services for school children, pensioners and disadvantaged persons are the responsibility of the South Australian Dental Service. The School Dental Service offers care to all pre-school, primary, and secondary school children in the State. The service continues until the children turn 18, while they are still at school.

The Adelaide Dental Hospital, which is the only dental teaching hospital in the State, is a major public facility for the treatment of pensioners and other social welfare beneficiaries. General dental care for pensioners and beneficiaries is also available from public dental clinics throughout the metropolitan area and in major country centres.

*Other health services*

A number of independent organisations provide important health services in South Australia, and many of these organisations receive major support in the form of government grants.

*Blood transfusion*

The Red Cross Blood Transfusion Service collects and processes blood at the Service's centre in Adelaide, through a mobile unit which visits metropolitan and country centres, and at regional centres. Blood donations collected by the Service are used for emergency and routine needs and stored at major and subsidiary bloodbanks at metropolitan hospitals and regional blood transfusion centres. All donor blood is tested, including screening for the Acquired Immune Deficiency Syndrome (AIDS) associated viral antibody HIV-1, hepatitis B and hepatitis C.

Recently the Service became the Tissue-Typing Centre for the South Australian Branch of the Australian Bone Marrow Donor Registry.

*Home nursing*

The Royal District Nursing Society of SA Inc. (RDNS) is an independent, non-profit organisation providing comprehensive nursing care to individuals in the community setting.

Nursing care is offered according to assessed need, over a 24-hour period, to young and old, the frail and disabled, the acute and chronically ill, to those requiring care following day surgery and to the terminally ill.

Nursing staff are employed as specialist consultants in the areas of diabetes management, continence promotion, palliative care, AIDS/HIV care and developmental disabilities.

Additionally, multi-disciplinary courses are offered in palliative care, continence promotion and dementia care.

In 1990-91 the equivalent of 287 full-time registered nurses made 412,112 visits to 4,992 clients. To achieve this 189,774 kilometres were travelled in 199 cars.

The RDNS operates from administrative headquarters in Adelaide with regional and district centres located in the metropolitan and some country areas. The main source of funding comes through the Home and Community Care Program, the South Australian Health Commission and Medicare. Donations from clients and the community, RDNS branches, service clubs and local government provide additional funds to support the Society's service.

*Flying Doctor Service*

The Royal Flying Doctor Service (Central Section) is responsible for the aviation management of all aero medical retrieval and air ambulance aircraft in South Australia. It also provides an aerial medical service on a routine and emergency basis to remote areas of South Australia and the southern half of Northern Territory, covering an area of some 2.2 million square kilometres. It has control bases at Port Augusta and Alice Springs.

The Royal Flying Doctor Service provides an important communication link to people living, working and touring in outback Australia.

**St John Ambulance service** St John Ambulance Australia South Australia Inc. provides the ambulance service for the State operating from bases throughout the metropolitan and country areas, as well as operating air ambulances jointly with the Royal Flying Doctor Service.

St John also provides voluntary first aid services at numerous functions throughout the State, and performs important first aid training to the general public and industry.

**Other health services** Important services are also provided by other independent health-related organisations such as the National Heart Foundation, the Anti-Cancer Foundation and the Family Planning Association.

**Public health** The Public and Environmental Health Division of the South Australian Health Commission is concerned with the prevention and control of disease, illness and injury, and the promotion of health of South Australians. The service is comprised of a number of specialist operational units which monitor health status, plan and deliver programs to reduce illness and injury, and monitor and control environmental and other factors affecting health.

The Division hosts and services the Central Board of Health, the Public and Environmental Health Council, the Food Quality Committee, the Controlled Substances Advisory Council, the Radiation Protection Committee and interdepartmental committees dealing with the health aspects of water quality and electromagnetic radiation.

The core functions of the Division as the State's public health agency are assessment, policy development and assurance.

The Division also oversees the Port Pirie Lead Program, which is a major, innovative public health program involving blood and environmental monitoring, community education, house decontamination and greening activities.

**Environmental Health** This branch is concerned with such aspects of public health as water and food supply, shelter, disease vectors, hazardous substances and waste disposal. It also administers legislation and provides education and advice on drugs of addiction; medicinal, domestic, industrial and agricultural poisons; pest control activities; and therapeutic substances and devices.

**Radiation Protection** This branch provides a consultancy and advisory service, carries out education and training and conducts research and promotion in radiation protection matters. It administers the Radiation Protection and Control Act.

**Sexually Transmitted Disease** This service has, in addition to clinical service and epidemiological surveillance and analytical roles, responsibility for prevention and education with regard to sexually transmitted diseases including HIV (AIDS).

**Breast X-ray** This service coordinates mammographic screenings and assessment for the early detection and treatment of breast cancer in women aged over 40 years.

**Termination of pregnancy** In South Australia, legal termination of pregnancy for specified medical and related conditions requires certification of the grounds for termination usually from two legally qualified medical practitioners, one of whom performs the operation. All such operations are required to be performed in hospitals prescribed for this purpose. Terminations are notified to the Health Commission, and the following table shows the number of terminations by age group for the years 1987 to 1989.

## Terminations of Pregnancy Notified : Age Distribution

Age groups (years)	1987	1988	1989
Under 15	20	20	19
15-19	1,008	1,005	1,009
20-24	1,341	1,235	1,297
25-29	877	906	919
30-34	596	647	642
35-39	294	347	328
40-44	86	94	116
45 and over	5	1	9
Not stated	-	-	-
<i>Total</i>	<i>4,227</i>	<i>4,255</i>	<i>4,339</i>

## Epidemiology

In broad terms the Epidemiology Branch is responsible for monitoring the health status of the South Australian population and for control measures to improve health, giving priority to:

- immunisation;
- responding to outbreaks or clusters of infectious diseases, cancers, birth defects, fetal deaths and other outcomes of pregnancy;
- injury prevention;
- cancer prevention, screening for early detection and providing support services to improve treatment and palliative care;
- advancing the antenatal, neonatal, and postnatal health of SA babies, especially with respect to Aboriginal people, home births and other births potentially at risk.

Infectious and Notifiable Diseases : Cases Notified<sup>(a)</sup>

Diseases	1988	1989	1990
Acquired Immune Deficiency Syndrome (AIDS) (b)	18	24	27
Amoebiasis	38	29	-
Ankylostomiasis	17	17	-
Arbovirus infection	8	115	23
Atypical mycobacterium infections	23	40	51
Bacterial meningitis	43	41	43
Brucellosis	1	1	-
Campylobacter infection	1,560	1,501	1,296
Chlamydia trachomatis	(c)	1,546	1,361
Congenital rubella	-	-	2
Crimean-Congo haemorrhagic fever	-	-	-
Food poisoning	10	15	5
Giardiasis	967	972	-
Gonococcal ophthalmia neonatorum	-	-	-
Gonorrhoea	267	200	173
Hepatitis A	101	36	99
Hepatitis B	43	48	36
Hepatitis unspecified	11	4	5
Hydatid disease	2	3	2
Legionnaires disease	26	13	19
Leprosy	1	-	1
Leptospirosis	6	5	6
Malaria	30	34	33
Measles	14	16	43
Meningococcal infection	29	27	21
Ornithosis	7	18	15
Pertussis (whooping cough)	57	136	172
Q-fever	21	21	21
Rabies	-	-	-
Rubella	216	858	354

Infectious and Notifiable Diseases : Cases Notified<sup>(a)</sup> (continued)

Diseases	1988	1989	1990
Salmonella infections .....	398	531	636
Shigella infections .....	53	75	94
Syphilis .....	92	55	83
Tetanus .....	2	—	2
Trachoma .....	130	62	3
Tuberculosis .....	72	83	89
Typhoid .....	—	5	3
Typhus .....	1	—	—
Vibrio Parahaemolyticus infection .....	—	2	1
Yersinia infections .....	44	125	197

(a) Cases notified may not reflect the actual number of occurrences of the disease in the population.

(b) Data for AIDS pertain to clinical disease in Category A. Data for AIDS - Related Complex and Lymphadenopathy Syndrome are not included.

(c) Not notifiable.

### Health Promotion Projects Unit

The Unit undertakes research, development and coordination to address priority areas of preventable ill-health. The current priority areas are tobacco control, high blood pressure and safe sex.

### Mortality

#### Causes of death

Causes of death in South Australia are classified according to the *International Classification of Diseases, Ninth Revision (ICD9)*.

Figures for deaths in this section are based on the State or Territory of usual residence of the deceased and relate to the date of registration of death, not the date of occurrence. Australian residents who die overseas are excluded from the figures, but deaths of persons usually resident overseas are included in the figures of the State or Territory where the death occurred.

#### Causes of Death<sup>(a)</sup>, 1989

Cause of death	Number of deaths			Rate (b) persons	Proportion of total deaths per cent
	Males	Females	Persons		
Infectious and parasitic diseases: . . . .	29	18	47	3.3	0.4
Intestinal infectious diseases . . . . .	1	—	1	0.1	—
Tuberculosis . . . . .	3	—	3	0.2	—
Meningococcal infection . . . . .	—	—	—	—	—
Septicaemia . . . . .	15	11	26	1.8	0.2
All other infectious and parasitic diseases . . . . .	10	7	17	1.2	0.1
Malignant neoplasms: . . . . .	1,530	1,207	2,737	192.3	24.1
Malignant neoplasm of stomach . . . .	79	51	130	9.1	1.1
Malignant neoplasm of colon . . . . .	114	122	236	16.6	2.1
Malignant neoplasm of rectum, rectosigmoid junction and anus . . . .	69	47	116	8.1	1.0
Malignant neoplasm of trachea, bronchus and lung . . . . .	386	137	523	36.7	4.6
Malignant neoplasm of female breast . . . . .	—	234	234	16.4	2.1

Causes of Death<sup>(a)</sup>, 1989 (continued)

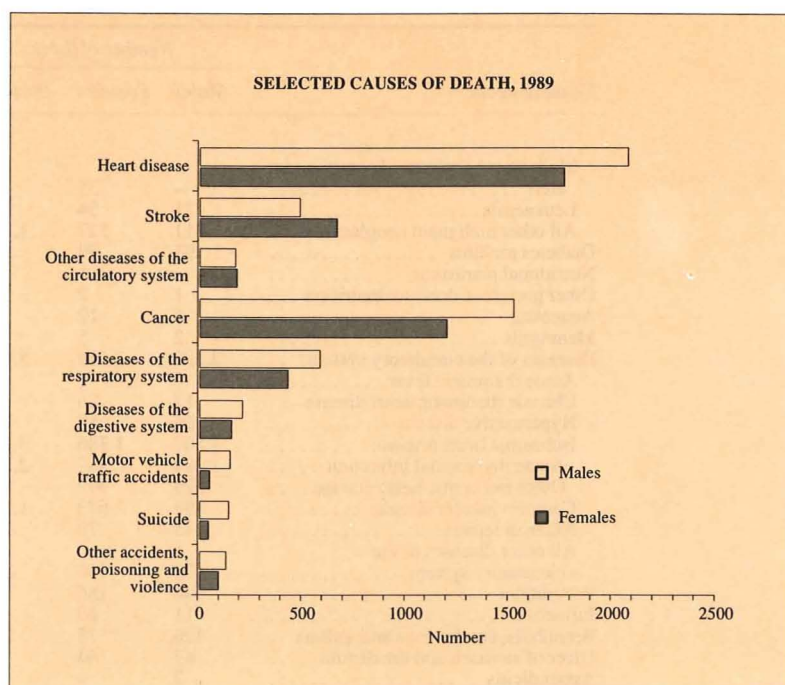
Cause of death	Number of deaths			Rate (b)	Proportion of total deaths
	Males	Females	Persons		
				persons	per cent
Malignant neoplasm of cervix uteri .....	-	35	35	2.5	0.3
Leukaemia .....	71	54	125	8.8	1.1
All other malignant neoplasms .....	811	527	1,338	94.0	11.8
Diabetes mellitus .....	93	99	192	13.5	1.7
Nutritional marasmus .....	-	1	1	0.1	-
Other protein-calorie malnutrition .....	1	2	3	0.2	-
Anaemias .....	6	12	18	1.3	0.2
Meningitis .....	2	5	7	0.5	0.1
Diseases of the circulatory system: ..	2,790	2,659	5,449	382.8	48.0
Acute rheumatic fever .....	-	1	1	0.1	-
Chronic rheumatic heart disease .....	12	26	38	2.7	0.3
Hypertensive disease .....	56	58	114	8.0	1.0
Ischaemic heart disease; .....	1,807	1,386	3,193	224.3	28.1
Acute myocardial infarction .....	1,284	987	2,271	159.6	20.0
Other ischaemic heart disease .....	523	399	922	64.8	8.1
Cerebrovascular disease .....	495	673	1,168	82.1	10.3
Atherosclerosis .....	45	79	124	8.7	1.1
All other diseases of the circulatory system .....	375	436	811	57.0	7.1
Pneumonia .....	146	186	332	23.3	2.9
Influenza .....	11	20	31	2.2	0.3
Bronchitis, emphysema and asthma ..	126	75	201	14.1	1.8
Ulcer of stomach and duodenum .....	47	44	91	7.3	0.9
Appendicitis .....	2	-	2	0.1	-
Chronic liver disease and cirrhosis ..	64	30	94	6.6	0.8
Nephritis, nephrotic syndrome and nephrosis .....	56	53	109	7.7	1.0
Hyperplasia of prostate .....	3	-	3	0.2	-
Direct obstetric deaths .....	-	-	-	-	-
Congenital anomalies .....	27	27	54	3.8	0.5
Certain conditions originating in the perinatal period: .....	40	32	72	5.1	0.6
Hypoxia, birth asphyxia and other respiratory conditions .....	19	8	27	1.9	0.2
Other conditions originating in the perinatal period .....	19	24	43	3.0	0.4
Signs, symptoms and ill-defined conditions .....	26	33	59	4.1	0.5
All other conditions .....	653	540	1,193	83.9	10.5
Accidents and adverse affects: .....	281	149	430	30.2	3.8
Motor vehicle traffic accidents .....	156	59	215	15.1	1.9
Accidental falls .....	23	43	66	4.6	0.6
All other accidents .....	102	47	149	10.5	1.3
Suicide .....	150	52	202	14.2	1.8
Homicide .....	11	6	17	1.2	0.1
All other external causes .....	-	4	4	0.3	-
<i>All causes</i> .....	<i>6,094</i>	<i>5,254</i>	<i>11,348</i>	<i>797.3</i>	<i>100.0</i>

(a) The classification uses the *Mortality List of Fifty Causes* recommended by ICD 9.

(b) The number of deaths by specified cause per 100,000 of mean resident population.

NOTE: There were no deaths recorded in 1989 to whooping cough, tetanus, smallpox, measles, malaria or abortion.

In 1989, the three leading causes of death were ischaemic heart disease, malignant neoplasms (cancer) and cerebrovascular disease (stroke). The proportions of deaths from the various causes are related to the age composition of the population, and there are marked differences in main causes of death by age and sex.



### Perinatal deaths

Perinatal deaths comprise *fetal deaths* (any child born weighing at least 500 grams at delivery or, when birthweight is unavailable, of at least 22 weeks gestation, which did not at any time after being born, breathe or show any other sign of life) and *neonatal deaths* (any child weighing at least 500 grams at delivery or, when birthweight is unavailable, of at least 22 weeks gestation, who was born alive and died within 28 days of birth).

### Causes of Perinatal Deaths : Condition in Child by Condition in Mother, 1989

Condition in child	Condition in mother				Total (incl. other)
	Maternal conditions which may be unrelated to present pregnancy	Maternal complications of pregnancy	Complications of placenta, cord and membranes	No condition reported	
Slow fetal growth, fetal malnutrition and immaturity	5	4	5	6	20
Birth trauma	—	—	—	2	2
Intrauterine hypoxia and birth asphyxia	2	1	19	19	41
Respiratory distress syndrome	2	1	1	2	6
Other respiratory conditions of fetus and newborn	—	3	—	4	7
Fetal and neonatal haemorrhage	1	—	6	10	17
Other conditions originating in the perinatal period	7	5	18	46	76
Congenital anomalies	3	4	1	19	27
All other causes	—	—	—	3	3
<b>Total perinatal deaths</b>	<b>20</b>	<b>18</b>	<b>50</b>	<b>111</b>	<b>199</b>

Further information on death statistics is included in Part 4.5 Births and Deaths.



**Life expectancy**

Life expectancy is the expected years of life remaining to a person of specified age if present patterns of mortality do not change during that lifetime. Life expectancy tables provide a useful indicator of long-term changes in health status.

Expectation of Life<sup>(a)</sup>

Period	At age (years)								
	0	10	20	30	40	50	60	70	80
MALES									
1984	72.95	63.87	54.22	44.81	35.36	26.14	18.05	11.34	6.58
1985	73.14	64.12	54.53	45.22	35.72	26.54	18.33	11.64	6.66
1986	73.45	64.33	54.72	45.36	35.94	26.79	18.57	11.68	6.52
1987	73.47	64.43	54.87	45.50	35.95	26.73	18.50	11.62	6.55
1988	73.59	64.50	54.94	45.61	36.12	26.94	18.54	11.84	6.88
1989	73.73	64.50	54.88	45.52	36.07	26.81	18.44	11.42	6.54
FEMALES									
1984	79.79	70.50	60.66	50.87	41.16	31.75	22.87	14.99	8.39
1985	79.08	70.07	60.25	50.59	40.86	31.55	22.70	14.56	8.25
1986	79.81	70.44	60.69	50.98	41.29	31.83	22.98	15.00	8.64
1987	80.04	70.81	60.97	51.19	41.52	32.13	23.17	15.19	8.67
1988	80.27	70.92	61.09	51.32	41.58	32.09	23.14	15.17	8.48
1989	79.72	70.52	60.68	50.98	41.30	31.88	23.00	15.07	8.55

(a) Based on Annual Life Tables calculated by the Australian Statistician. Because of the method of calculation, these figures are subject to annual fluctuations which may not be indicative of a longer term trend.

**Occupational health and safety****Legislation**

The provisions of the *Occupational Health, Safety and Welfare Act 1986*, which replaced the *Industrial Safety, Health and Welfare Act 1972*, took effect on 30 November 1987 and apply to all workers in South Australia, with the exception of Commonwealth Government employees who are provided for under the separate Commonwealth legislation. The Act sets out the rights and responsibilities of employers and employees, and is designed to encourage their involvement in achieving and maintaining a safe and healthy workplace. The South Australian Occupational Health and Safety Commission was established as a statutory, tripartite body under the Act.

The Commission provides a forum for representatives of employers, unions and Government organisations to develop occupational health and safety standards, formulate policies and strategies, promote awareness of occupational health and safety and to report and make recommendations to the Minister about the administration of the Act and other legislation relating to occupational health, safety and welfare.

The legislation emphasises the elimination of hazards at their source; establishes clearly the duties of employers, self-employed and employees, manufacturers and designers; provides for workers, elected health and safety representatives with statutory powers and functions and for joint health and safety committees; extends the powers of inspectors and establishes procedures for the resolution of health and safety issues in the workplace. Other legislation governing health and safety includes the *Boilers and Pressure Vessels Act 1968*, the *Dangerous Substances Act 1979*, the *Mines and Works Inspection Act 1920*, the *Explosives Act 1936*, the *Radiation Protection and Control Act 1982* and the *Controlled Substances Act 1984*.

**Work related  
injury and  
disease**

The *Workers Compensation Act 1971* was repealed by the *Workers Rehabilitation and Compensation Act 1986* which established a new authority – the Workers Rehabilitation and Compensation Corporation, 'WorkCover'. The Act, which came into operation on 30 September 1987, covers all persons employed under a contract of service, or who work for other persons under a contract arrangement or understanding in prescribed work of a prescribed class. The Crown is the presumptive employer of persons who voluntarily perform work of a prescribed class that is of benefit to the State.

The Act does not cover Commonwealth Government employees, who are provided for under separate Commonwealth legislation, or persons sustaining injuries from certain sporting or athletic events.

The Act places strong emphasis on rehabilitation as well as providing entitlement to weekly income payments. These payments are calculated on the basis of the worker's average weekly earnings as defined in the Act, and are 100 per cent of this amount in the first year, reducing to 80 per cent in the following years. The employer pays an injured worker for the first week's absence in each calendar year unless the injury was incurred under specified circumstances or the employer was insured against this liability. Death benefits are payable in the event of fatal accidents or diseases.

Compensation is funded by a levy on all non-exempt employers based on percentages of the aggregate remuneration paid to the employer's workers. Levels set by the Act had ranged to a maximum of 4.5 per cent but this was increased from 1 July 1990 to a maximum of 7.5 per cent. The percentage levied depends on the predominant class of industry in which the employer is engaged, but this percentage may be adjusted, depending on the employer's record with regard to health and safety, under a bonus/penalty scheme, also introduced from 1 July 1990. Exempt employers are self-funded.

Some statistics on employment injuries and diseases are included in the WorkCover Annual Report. For data for years prior to WorkCover, refer to previous issues of this publication.

**5.4 SOCIAL WELFARE**

The Commonwealth, State and local governments and a large number of voluntary agencies provide social welfare services for South Australians.

The Commonwealth Government is concerned largely with providing income maintenance in the form of pensions, benefits and allowances, 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.

The Department for Family and Community Services is the main State agency and operates in the field of child and family welfare and distributes emergency financial assistance in certain circumstances.

Local government and voluntary agencies, many of which receive government funding, also provide a range of welfare-related services.

**Commonwealth  
Social Security**

The Department of Social Security is responsible under the *Social Security Act 1991* (Cwlth) for social security entitlements and related services.

**Pensions**

The Department of Social Security pays the following pensions subject to income and assets tests and certain residential requirements:

- age pension;
- invalid pension;
- wife's pension;
- carer's pension;
- widow's pension;
- sole parent's pension and sheltered employment and rehabilitation allowances (under conditions similar to those applying to pensions).

Eligible recipients of these payments may receive additional amounts for each dependent child, or for rent assistance or an allowance for remote areas. Pension rates are subject to twice-yearly indexation in accordance with increases in the Consumer Price Index.

**Pension Recipients<sup>(a)</sup>**

Type of pension	At 30 June		
	1988	1989	1990
Age pension .....	136,663	137,922	138,705
Invalid pension .....	31,187	32,037	32,861
Wife's/carer's pension .....	13,123	13,371	13,482
Widow's pension (b) .....	13,567	7,235	6,739
Supporting parent's benefit (b) .....	16,646	—	—
Sole parent's pension (b) .....	—	22,856	23,524
Sheltered employment allowance .....	1,007	959	1,020
Rehabilitation allowance .....	297	132	146

(a) Includes figures for Broken Hill Region (NSW).

(b) The sole parent's pension was introduced on 1 March 1989. All recipients of the supporting parent's benefit and some recipients of the widow's pension now receive the sole parent's pension.

**Benefits**

The Department of Social Security pays the following benefits to eligible persons subject to an income test:

- unemployment benefit;
- job search allowance paid to unemployed people aged 16 and 17 years;
- sickness benefit;
- special benefit (payable in circumstances of special need to persons not eligible for other pensions or benefits).

**Average Number of Benefit Recipients<sup>(a)</sup>**

Type of benefit	1987-88	1988-89	1989-90
Unemployment benefit (b) .....	52,795	47,879	41,210
Sickness benefit .....	6,934	6,732	6,213
Special benefit .....	1,549	1,657	1,592

(a) Includes figures for Broken Hill Region (NSW).

(b) From 1 January 1988 includes Job Search Allowance.

As for pensions, eligible recipients may receive additional payments for children, rent assistance and remote area allowance, and benefit rates are indexed to the Consumer Price Index.

**Allowances**

The Department of Social Security pays the following allowances to assist families, subject to eligibility requirements:

- family allowance (payable per dependent child, with additional payments for families with children from multiple births);
- child disability allowance;
- double orphan's pension;
- family allowance supplement (for certain low income families).

**Allowances Paid<sup>(a)</sup>**

<i>Type of pension</i>	<i>At 30 June</i>		
	<i>1988</i>	<i>1989</i>	<i>1990</i>
Number of children and students for whom Family Allowance paid .....	316,147	313,068	306,472
Number of children for whom Child Disability Allowance paid .....	3,839	4,061	4,081
Number of orphans for whom Double Orphan's Pension paid .....	233	193	151
Family Allowance Supplement recipients .....	13,621	16,210	40,409

(a) Includes Broken Hill Region (NSW).

**Repatriation benefits**

The Commonwealth Department of Veterans' Affairs is responsible under the provisions of the *Veterans' Entitlement Act 1986* (Cwlth) for providing assistance, including medical care, income support and compensation, to veterans and their dependants. Details on health services provided to veterans are included in Part 5.3 Health.

Income support in the form of Service Pensions and compensation in the form of Disability Pensions are provided to eligible veterans and their dependants. Certain other benefits may also be available, with some being subject to income and assets testing. The major veterans' pensions are paid at similar rates to Social Security pensions and benefits and are similarly linked to increases in the Consumer Price Index.

**Repatriation Pensions by Type (Number)**

<i>Type of pension</i>	<i>At 30 June</i>		
	<i>1989</i>	<i>1990</i>	<i>1991</i>
Disability Pension payable to:			
Incapacitated veterans .....	14,343	14,053	12,143
Dependants of incapacitated veterans .....	11,421	10,822	9,428
Dependants of deceased veterans .....	6,410	6,688	6,873
<i>Total Disability Pensions payable .....</i>	<i>32,174</i>	<i>31,563</i>	<i>28,444</i>
Service Pension payable to:			
Veterans .....	23,110	22,760	22,175
Wives and widows of veterans .....	17,109	16,835	16,397
<i>Total Service Pensions payable .....</i>	<i>40,219</i>	<i>39,595</i>	<i>38,572</i>

**Community welfare**

The South Australian Department for Family and Community Services is responsible for promoting the welfare of individuals, families, groups and the community, with priority being given to those most disadvantaged in the community. It encourages the community to develop its own welfare services by promoting the coordination and collaboration of government and non-government welfare services, and through direct service delivery.

Welfare services provided by the Department include:

- funding to other welfare organisations;
- individual and family support through general counselling, custody and access counselling, advice and counselling on family maintenance, budgeting advice and crisis care services;
- emergency financial assistance;
- administering concession schemes for electricity, burial assistance, council, water and sewerage rates and public transport;
- child protection;
- substitute family care for children including foster care, residential care and adoptions;
- assisting young offenders through screening panels, Children's Aid Panels, services to Children's Courts, secure and non-secure residential care and supervision in the community.

The following table provides a summary of selected major activities by the Department.

#### Department for Family and Community Services, Selected Services

<i>Type of service</i>	1987-88	1988-89	1989-90
Financial Counselling Service, new clients counselled . . . . .	3,360	3,130	3,314
Family maintenance advice and counselling cases . . . . .	4,544	5,000	4,579
Crisis Care Service, home visit assistance . . . . .	2,452	2,967	2,288
Emergency Financial Assistance, successful applicants . . . . .	49,282	39,816	40,206
Child protection incidents . . . . .	3,898	3,213	2,898
Children's Aid Panel appearances, number of offenders . . . . .	5,008	4,031	4,345
Children's Court appearances, number of offenders . . . . .	2,405	2,173	2,084
Number of children placed on bonds with supervision . . . . .	582	518	494
Psychological services, number of client referrals . . . . .	647	689	745

#### Adoptions

There are four types of adoptions in respect of which adoption orders are granted. Placement adoptions (Australian, Inter-country or Special Needs) are those where an Australian child, or one from another country, is adopted by new adoptive parents. Special Needs adoptions find permanent placement for children with physical, intellectual and emotional disabilities.

#### Adoption Orders Granted

<i>Type of adoption order granted</i>	1987-88	1988-89	1989-90
Placement adoption:			
Australian . . . . .	31	26	30
Inter-country . . . . .	87	67	44
Special needs . . . . .	5	7	9
Particular child adoption:			
Australian . . . . .	115	126	63
Inter-country . . . . .	6	3	1
<i>Total</i> . . . . .	244	229	147

In 1989–90, 30 Australian, 44 Inter-country and 9 Special Needs children were placed through adoptions of these types. Particular child adoptions (Australian or Inter-country) are those by a near relative, by foster parents who have cared for the child for some time, or the adoption of a child by a natural parent and his or her spouse who is not the other natural parent. This latter type of adoption is the most commonly granted in South Australia.

**Other welfare services**

The South Australian Housing Trust and Emergency Housing Office provide a number of housing-related services directed towards pensioners, beneficiaries, low income recipients and other disadvantaged groups. Details of services provided are in Part 9.1 Building.

A considerable number of non-government agencies and community groups provide welfare related services in South Australia, and many receive funding through Family and Community Development Grants. These grants are administered by the Family and Community Development Unit of the Department for Family and Community Services. In 1989–90, a total of \$9,439,679 was provided to agencies under the Supported Accommodation Assistance Program.

Details of organisations concerned with social welfare are contained in the *Directory of Social Welfare Resources* published jointly by the South Australian Council of Social Services and the Citizens Advice Bureau. The Citizens Advice Bureau advises those in need on how best to use the wide range of services provided by government and non-government bodies.

## 5.5 SOCIAL SERVICES

A considerable number of social services, many of which are directed towards individuals and groups with special needs, are provided through government agencies, traditional service organisations and community and self-help groups. The Commonwealth Department of Community Services and Health has a major role in the drawing together, support and coordination of these services.

**Commonwealth community services**

The Department of Community Services and Health is responsible for programs to assist families with children, people with disabilities, aged persons, homeless people and others in special need and has the following major administrative functions with regard to Community Services (and excluding its Health functions):

- community programs, disability services and Supported Accommodation Assistance;
- child care services;
- rehabilitation services;
- programs for aged people, including Home and Community Care, residential accommodation, capital and recurrent funding of nursing homes and hostels, payment of Domiciliary Nursing Care Benefit and ensuring adequate standards of care in residential facilities are met;
- the provision of grants-in-aid towards the operating costs of national organisations representing the welfare interests of people who are clients of the Department.

**Aboriginal affairs**

The Commonwealth Department of Aboriginal Affairs advises the Government on all matters concerning Aboriginal people, formulates policy and develops and implements and/or coordinates programs directed towards the advancement of the Aboriginal people. Consultation with Aboriginal people is mandatory in carrying out these functions.

The Department's Heritage Division is responsible for the development, review and administration of Commonwealth legislation concerning Aboriginal land and heritage matters. The Program Development Division is responsible for the development of national policies and strategies for Aboriginal people in the areas of employment and training, health, sport and recreation, community housing and services, communications and transport, legal matters and issues associated with the special needs of children, youth, the aged and women. The Communications and Special Services Division's areas of responsibility include information and public awareness, promotion of the arts and culture, Aboriginal broadcasting and telecommunications and liaison with the Aboriginal Development Commission, the Australian Institute of Aboriginal Studies and Aboriginal Hostels Ltd.

### **Social justice strategy**

In 1987 the South Australian Government announced its Social Justice Strategy. The strategy is based on the principles that: all members of society have rights and obligations and should enjoy equal opportunities to realise their needs and aspirations; all members of society should have opportunities to participate in decision-making which affects their lives; and priority of care should be given to those with greatest need.

The Strategy requires all government agencies to incorporate these principles in their planning, decision making and resource allocation. Government agencies are required to deliver services fairly and equitably according to the needs of the whole community and to take into account the social impact of their policies and programs. All State services including transport, water, sanitation, energy supply, health, employment, education and training are involved in this approach.

The administrative base for the Strategy lies with the Social Justice Unit in the Cabinet Office of the Department of the Premier and Cabinet. The Unit is responsible for providing direction and focus, and assisting agencies in implementing the Strategy. The Unit also provides executive support to the Social Justice Advisory Committee which is a consultative body with wide representation from all sectors of the community.

### **Office of the Commissioner for the Ageing**

The Office of the Commissioner for the Ageing operates under the *Commissioner for the Ageing Act 1984*. The objectives of the Act are oriented to the enhancement of the quality of life of elderly people and the reciprocal enrichment of the community in which elderly people live.

The functions of the Commissioner include: advising the South Australian Government on the implementation of programs and services for or affecting the ageing (including special needs groups within the population of the ageing) in consultation with the aged; monitoring the effects on the ageing of legislation and practices at all levels of government; and, to compile, analyse and disseminate information concerning the ageing.

South Australia has had a Commissioner for the Ageing since 1985.

## Chapter 6

# EDUCATION AND SCIENCE

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## 6.1 EDUCATION

In South Australia attendance at school is compulsory for children from six to fifteen years of age. No child may be enrolled for the first time at a government school, other than a child/parent centre, before the age of five years. The admission of children aged five is provided for in all junior primary, primary and area schools at the beginning of each school term, but schools are encouraged to receive intakes more frequently.

Education at the primary and secondary level is available at government schools controlled by the Education Department and at non-government schools, which are required to be registered with the Non-government Schools Registration Board. 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 Reception, then Year 1 through to Year 7, and secondary classes Year 8 to Year 12. The present system of government schools and of compulsory education dates from the *Education Act 1875*.

A historical summary of education in South Australia was included on pages 153-4 of the *South Australian Year Book 1969*.

At the tertiary level the University of Adelaide, the Flinders University of South Australia and the University of South Australia are independently controlled but are financially dependent on government grants. Facilities for adult education are provided by the Department of Employment and Technical and Further Education and the Education Department.

### Early childhood services

Established on 1 July 1985, the Children's Services Office (CSO) is an organisation which coordinates a range of early childhood services. This involves the provision of pre-school education, child care, family day care, outside school hours care, vacation care, playgroups and toy libraries, and liaison with and assistance to other bodies which also provide these services. CSO also has the responsibility for licensing of child care centres in South Australia.

In June 1990, 318 CSO pre-school centres provided 15,452 eligible children with sessional pre-school programs and 3,012 children participated in other early childhood programs. These centres were staffed by the equivalent of 679 full-time staff (including teachers and pre-school assistants).

The CSO provides support to children with special needs and employs special education teachers, psychologists, speech pathologists and social workers.

The Education Department is involved also in the provision of pre-school education. In 1990 there were 102 child/parent centres integrated into junior primary, primary or area schools, fifty-one of them located in rural areas, twelve of these being in Aboriginal schools. One centre provided pre-school services to children with severe disabilities and their families. This program involves home visiting and school liaison with the aim of integration of these children into local schools. Child/parent centres were staffed by the full-time equivalent of 106 teachers and 69 ancillary staff, with 2.4 central support staff.



These child/parent centres catered for 3,354 enrolled four year old children and provided for 2,359 additional children in playgroup or other family related activities.

Pre-school Education and Child Care Services, 1990

Age last birthday (years)	Children using pre-school services			Children using subsidised child care centres
	Pre- school centres	Child/ parent centres	Total	
Under 3 .....	149	1,018	1,167	3,597
3 .....	1,435	1,341	2,776	2,102
4 .....	16,806	3,334	20,140	1,471
5 .....	74	13	87	154
6 .....	—	—	—	32
Over 6 .....	—	—	—	82
<b>Total</b> .....	<b>18,464</b>	<b>5,706</b>	<b>24,170</b>	<b>7,438</b>

There were fifty-three commercial or non-profit, non-funded centres which provided child care during 1990. In addition there were 8,243 children registered with Family Day Care.

**Primary and secondary education**

In July 1990 there were 891 schools operating in South Australia and of these 635 were primary, 119 were secondary, 108 primary and secondary combined and 29 special schools. The Government, through the Education Department, operated 706 schools while 185 were operated by non-government authorities.

Enrolments in recent years, classified by government and non-government schools and by age of student are given in the following tables.

Full-time Students by Level of Study and Category of School at or about 1 July

Students	1988	1989	1990(b)
<b>Primary:</b>			
Government .....	112,349	117,266	119,490
Non-government .....	29,770	30,976	32,179
<b>Total</b> .....	<b>142,119</b>	<b>148,242</b>	<b>151,669</b>
<b>Secondary:</b>			
Government .....	71,108	67,259	65,378
Non-government .....	25,333	25,236	25,688
<b>Total</b> .....	<b>96,441</b>	<b>92,495</b>	<b>91,066</b>
<b>Special (a):</b>			
Government .....	1,309	1,244	(b)
Non-government .....	142	151	(b)
<b>Total</b> .....	<b>1,451</b>	<b>1,395</b>	<b>(b)</b>
<b>Total students</b> .....	<b>240,011</b>	<b>242,132</b>	<b>242,735</b>

(a) All students in special schools.

(b) From 1990 students attending special schools have not been identified separately and have been allocated to primary or secondary education.

Full-time Students<sup>(a)</sup> : Age Of Students and Category of School, 1990

Age at 1 July (years)	Non-government schools					Total non- government	All schools
	Government schools	Anglican	Catholic	Other (a)			
Under 6	16,330	320	2,865	1,238	4,423	20,753	
6	16,764	326	2,667	1,161	4,154	20,918	
7	15,930	317	2,644	1,097	4,058	19,988	
8	15,673	331	2,576	1,132	4,039	19,712	
9	15,566	361	2,568	1,131	4,060	19,626	
10	14,868	412	2,533	1,197	4,142	19,010	
11	14,732	427	2,631	1,238	4,296	19,028	
12	14,670	624	2,824	1,379	4,827	19,497	
13	14,013	762	2,975	1,577	5,314	19,327	
14	14,277	818	2,881	1,643	5,342	19,619	
15	13,579	807	2,942	1,698	5,447	19,026	
16	11,124	683	2,678	1,576	4,937	16,061	
17	5,216	314	1,179	783	2,276	7,492	
18	1,279	39	244	99	382	1,661	
19 and over (b)	847	7	89	74	170	1,017	
<i>All students</i>	<i>184,868</i>	<i>6,548</i>	<i>34,296</i>	<i>17,023</i>	<i>57,867</i>	<i>242,735</i>	

(a) Includes inter-denominational and non-denominational schools and schools with no religious affiliation.

(b) Includes students of unknown age at time of census.

### 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 to eight year course.

In primary education at government schools the emphasis is on the child's active involvement in learning. The curricula are designed to extend children's experience in their environment through studies in society and the environment, science and mathematics. They provide for the development of all language skills, especially in listening, speaking, reading and writing in both English and an additional language other than English. Studies in health and personal development, the arts and technology provide for the development of independence, creativity, and technological capability.

Non-government primary schools largely follow the government schools in their curricula, but the Education Department exercises no formal authority over these schools beyond requiring them to submit certain statistical returns relating to compulsory attendance.

### Secondary education

Children who have completed their primary schooling are required to attend a secondary school, either government or non-government, until their fifteenth birthday.

Students living in urban areas usually attend their local high schools. In country areas, secondary education is provided by area schools or high schools depending on the size of the population being served. Area schools cater for both primary and secondary students. Because of their smaller size the secondary curricula offered may not be as varied as that of high schools but a similar breadth and balance is sought.

During the first three years of education at government secondary schools, students are introduced to as wide a range of subjects as possible. Each school is free to develop its own combination of subjects and to determine the amount of time spent on each, within departmental guidelines.

Specialisation increases in Years 11 and 12, where from 1992, students' studies will lead to the South Australian Certificate of Education (SACE). The proportion of students of post-compulsory ages staying on at school has increased significantly in recent years and increasing numbers of adults are returning to complete their schooling. Partly in response to this trend the curriculum has broadened to include more non-tertiary oriented senior school studies, particularly through the development of various initiatives aimed at assisting students in their changeover to employment or vocational studies.

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, but a limited number of internal scholarships are available. In addition to normal day attendance some non-government schools offer boarding facilities for country students. Non-government schools provide, 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 Year 12.

Typing, shorthand and certain academic courses are provided at privately owned business colleges.

The similarity between courses in government and non-government secondary schools has resulted from the influence of the Senior Secondary Assessment Board of South Australia (SSABSA) which is responsible for certification of Year 11 and Year 12 SACE Courses.

#### *Open access college*

The Open Access College was launched in 1990 and formally opened to students at the beginning of the 1991 school year. A multi-campus college, the Open Access College, consists of three schools of distance education, the Anangu and Aboriginal Schools Unit, the Open Access Materials Unit and Outreach Services. Two of the schools (Reception to Year 10 and Senior Secondary), and the Materials Unit are co-sited with Marden High School. The third school covering Reception to Year 12 is located at Port Augusta but in its first year is catering only for students from Reception to Year 7.

Students from the former South Australian Correspondence School and the Port Augusta School of the Air transferred to the Open Access College at the end of 1990 when the Correspondence School and School of the Air closed. Courses are supplied to students in schools who wish to take a specific subject which is not available in the local school. Indeed the largest single group in the Open Access College is comprised of students attending other schools. As well as catering for geographically remote and medically referred students, the service also reaches itinerant families and those travelling overseas.

#### *Special education*

The Education Department provides Special Education Support for children with disabilities in a variety of educational settings. The settings include special schools, special classes, centres for hearing impaired children, and the neighbourhood school. The general policy is that students with disabilities should attend a setting which is appropriate to their curriculum needs. Special Education provisions may include access to transport, a visiting teacher service, a school-based special education teacher or specialised equipment or materials. Some students with disabilities require the support services of other government or non-government agencies such as therapy services. The Education Department works in collaboration with these agencies to ensure effective coordinated delivery of services.

Special Education is available within the Catholic and Independent sectors and there are three non-government special schools.

#### *Multicultural education*

Multicultural education focuses on programs in Languages Other Than English, English as a Second Language and Culturally Inclusive Education.

Languages Other Than English (LOTE)

The Languages Policy of the South Australian Education Department reaffirms its commitment to the study of languages other than English in South Australian schools. By 1995 all students in primary schools will be learning a language other than English. In secondary schools students will have access to a LOTE. Students from non-English speaking backgrounds have the opportunity of studying their mother tongue as part of their formal education.

Complementary providers of LOTE programs in South Australia include Ethnic Schools and the South Australian Secondary School of Languages.

English as a Second Language

The English as a Second Language Program consists of two components. The General Support Program which operates in primary and secondary Education Department schools to support the language learning needs of students from non-English speaking background and the New Arrivals Program which operates predominantly in intensive Language Centres and Units and which provides intensive instruction for recently arrived students who have minimal English. Both programs are supported primarily by Commonwealth funding but some supplementary funding is provided by the State.

Culturally Inclusive Education

Culturally Inclusive Education is concerned with:

- affirmation of cultural diversity in the curriculum and school and classroom practices,
- addressing the schooling needs of students from non-English speaking backgrounds.

Oversight for these programs is provided by Officers of the Languages and Multicultural Centre.

Aboriginal education

The Aboriginal Education Curriculum Unit has responsibility for support to Aboriginal students and the implementation of Aboriginal Studies across the State. Its major functions include policy development, management of human and financial resources, the monitoring and review of Aboriginal Education programs and Aboriginal Studies development for Aboriginal and Anangu schools.

Upper secondary curriculum and assessment

In 1984 the Senior Secondary Assessment Board of South Australia (SSABSA) took responsibility for syllabuses and assessment in the twelfth year of schooling. Publicly examined subjects are assessed by 50 per cent school assessment and 50 per cent public examination, the results of the examinations being used to moderate the school assessments. For school-assessed subjects, 100 per cent school assessment is moderated by visits from SSABSA moderators to ensure adherence to SSABSA State-wide standards. Results are recorded on the SSABSA Year 12 Certificate of Achievement.

SSABSA is currently managing a State-wide development of curriculum and assessment practices for the eleventh year level of schooling. In 1992 studies at this level, to be known as Stage 1 of the South Australian Certificate of Education (SACE), will be offered for the first time. Stage 2 of the new certificate will be based upon the present Year 12 syllabuses and assessment procedures. The first awards of the SACE will be made in January 1994.

Tertiary education

The Office of Tertiary Education was established in 1987 under the *Government Management and Employment Act 1985* for the purpose of furthering South Australia's economic, cultural and social development through a system of tertiary education. Tertiary education is widely defined, and in addition to university education the Office concerns itself with private provision of post-school education and training and a range of community adult education. The Office is also responsible for the development of overseas markets for education.

## Higher education institutions

### University of Adelaide

The University of Adelaide was established in 1874 by Act of Parliament and the academic work of the University began in March 1876. Courses in Law were introduced in 1883 and Medicine in 1885.

On 1 January 1991 the University amalgamated with Roseworthy Agricultural College and the City campus of the South Australian College of Advanced Education. The Faculty of Agricultural and Natural Resource Sciences and the Faculty of Performing Arts were created as a result, while the Faculty of Arts experienced considerable growth. The Faculty of Agricultural and Natural Resource Sciences is predominantly based at the Roseworthy and Waite campuses.

In 1991 there were eleven faculties at the University: Agricultural and Natural Resource Sciences, Architecture and Planning, Arts, Dentistry, Economics and Commerce, Engineering, Law, Mathematical and Computer Sciences, Medicine, Performing Arts, and Science. Higher degrees are offered in all faculties. Postgraduate diploma courses are provided in approximately twenty disciplines ranging in diversity from Archaeology to Clinical Dentistry; Mathematical Science to Jazz.

The University places strong emphasis on research and has set growth of graduate education as a major strategic objective. The research activities of the University attract considerable outside funding in addition to Commonwealth recurrent funding for teaching and research. Grants totalling \$19.3 million were awarded to the University for 1990. For 1991 the University has secured \$7.1 million from the Australian Research Council and \$2.1 million from the National Health and Medical Research Council. The University also receives substantial research funding from the Grains Research and Development Corporation for South Australia, the Australian Wool Corporation, the Wheat Industry Research Council and the Barley Industry Research Council.

University of Adelaide : Student Course Enrolments, 1991<sup>(a)</sup>

Faculty	Level of course			Total
	Higher degree	Bachelor degree	Other	
Agricultural and Natural Resource Sciences .....	151	602	436	1,189
Architecture and Planning ..	12	237	3	252
Arts .....	397	2,615	690	3,702
Dentistry .....	24	208	21	253
Economics and Commerce ...	185	1,104	28	1,317
Engineering .....	85	963	3	1,051
Law .....	53	630	7	790
Mathematical and Computer Sciences .....	55	768	90	913
Medicine .....	171	804	20	995
Performing Arts .....	21	505	134	660
Science .....	244	1,354	14	1,612
<i>Total</i> .....	<i>1,398</i>	<i>9,790</i>	<i>1,446</i>	<i>12,734</i>

(a) Includes multiple course enrolments.

One of the unique features of the University's work is the extensive research conducted by approximately thirty centres, including the University's *National Centre for Petroleum Geology and Geophysics*, the *Research Centre for Women's Studies*, the *Waite Agricultural Research Institute*, the *Centre for Gallium Arsenide VLSI Technology*, the *Mawson Graduate Centre for Environmental Studies*, the *Centre for Asian Studies*, the *Centre for South Australian Economic Studies* (with Flinders University)

and the *Corporate and Business Law Centre*. Further education programmes are conducted through the University's radio station 5UV and the Office of Continuing Education.

Students at the University are provided with an extensive network of support services and the range of facilities which cater for their needs includes six libraries, sporting and recreational clubs, accommodation and a health service.

#### Waite Agricultural Research Institute

The Waite Agricultural Research Institute was established in 1924 and is located on a separate campus at Urrbrae. In 1927 it took on teaching responsibilities in addition to its research function.

Following the merger of Roseworthy Agricultural College with the University a new Faculty of Agricultural and Natural Resource Sciences was formed, encompassing the activities of the Waite Institute and the Roseworthy Campus.

Most of second year and the third and fourth years of the Agricultural Science degree are taught at the Institute, involving about 100 undergraduates. There are about 150 postgraduate students undertaking Masters or Doctor of Philosophy studies at the Institute. In recent years many postgraduate students have been accepted from more than thirty countries, with almost half the current number coming from overseas.

Further details are included on pages 125-6.

#### Roseworthy Campus

The Roseworthy Agricultural College, situated about fifty kilometres north of Adelaide, merged with the University of Adelaide on 1 January 1991 to become the University's Roseworthy Campus. The College was established in 1883 as the first agricultural college in Australia, and became a college of advanced education in 1974. Staff of the Roseworthy Campus are part of a new Faculty of Agricultural and Natural Resource Sciences, as are staff of the Waite Institute. This facilitates close collaboration in teaching and research between Roseworthy and Waite-based staff.

Roseworthy Agricultural College : Student Enrolments, 1990

Field of study	Internal		External	Total
	Full-time	Part-time		
Agricultural .....	241	13	29	283
Natural resources .....	121	28	21	170
Wine science .....	175	7	113	295
<i>Total</i> .....	<i>537</i>	<i>48</i>	<i>163</i>	<i>748</i>

#### Flinders University

Initially planned as an extension of the University of Adelaide, on a site eleven kilometres from the centre of Adelaide, 'The Flinders University of South Australia' was given full autonomy by the South Australian Government in 1965. A more detailed history of the Flinders University was included on pages 163-8 of the *South Australian Year Book 1967*.

#### 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 Dean of the School for a period of three years.

At present there are nine schools: biological sciences; earth sciences; education; humanities; mathematical sciences; medicine; physical sciences; social sciences, and nursing studies. In 1980 the University established a Board of Studies in Theology.

From 1 January 1991, the Flinders University merged with the Sturt Campus of the former South Australian College of Advanced Education. From January 1992, the University will aggregate its nine schools and the Board of Studies in Theology into four Divisions, and these will become the principal academic entities of the University.

#### Enrolments

The University offers tuition in courses leading up to 18 different Bachelor degrees and 31 Master degrees. In addition the University confers Doctor of Philosophy, Doctor of Letters, Doctor of Science and Doctor of Medicine degrees, and also offers 10 post-graduate diplomas and three second bachelor degrees.

#### Flinders University : Student Enrolments, 1991

Field of study	Level of course			Total
	Higher degree (a)	Bachelor degree	Other	
Arts .....	331	2,715	270	3,316
Economics .....	12	1,231	98	1,341
Education .....	222	862	457	1,541
Medicine .....	210	556	47	813
Science .....	115	1,371	88	1,574
Nursing .....	72	1,042	661	1,775
<i>Total</i> .....	<i>962</i>	<i>7,777</i>	<i>1,621</i>	<i>10,360</i>

(a) Higher degrees by Coursework, Qualifying or Research.

#### Research activities

Considerable research activities are conducted at the University by staff in all Schools and in the following specialised research centres: the Flinders Institute for Atmospheric and Marine Science, the Institute for Atomic Studies, the Institute for Australasian Geodynamics, the Centre for Neuroscience, the Cancer Research Unit, the National Institute of Labour Studies, the Centre for Research in the New Literatures in English, the Centre for Development Studies, the Electronic Structure of Materials Centre, the Centre for Groundwater Studies, the Centre for Multicultural Studies, the Centre for South Australian Economic Studies and the National Centre for Petroleum Geology and Geophysics, the Centre for Education and Training on Addiction, the Liver Research Centre, the Pan Pacific Institute, the National Tidal Facility and the Institute for the Study of Learning Difficulties. These are shown in greater detail on pages 129-31.

#### University of South Australia

The University of South Australia was formed on 1 January 1991 by the merger of the Salisbury, Magill and Underdale campuses of the South Australian College of Advanced Education (SACAE) and the South Australian Institute of Technology (SAIT).

The former campuses of the SACAE offer a wide range of courses in Aboriginal studies, art, business studies, home economics, journalism, communications, nursing studies, recreation, wildlife and park management and women's studies, at associate diploma, diploma and post-graduate levels. The majority of courses can be taken either part-time or full-time. In teacher education, courses are offered from pre-school, through primary and secondary (with specialisations) to technical and further education courses. Teacher education courses are available at diploma, degree and post-graduate levels.

The former campuses of the SAIT offer a wide range of courses and subjects in architecture and building, arts and humanities, business and economics, education, engineering, health, legal studies and science to various levels. Thirty-five professional degree and diploma courses are offered.

At the post-graduate level, there are eight Masters degrees by Coursework, plus a Masters degree (Research) which is available in eighteen discipline areas. Doctoral programs by Research are also available. There are thirty accredited graduate diploma courses including a General Graduate Diploma offering programs in Applied Science, Social Science and Health Science.

Entry into courses offered by the University is competitive and admission is subject to selection based on academic merit. Enrolments for 1991 comprised 21,175 internal and 2,895 external students.

## Other tertiary education

### DETAFE

The Department of Employment and Technical and Further Education (DETAFE) is responsible for a wide range of post-secondary education conducted by nineteen Colleges of TAFE throughout the State. Vocational training is the main thrust of this sector which offers more than 340 part-time and full-time courses either within a college environment or by distance education or by a mixture of both.

Courses are tailored to meet the needs of most sectors of industry, commerce and government. They range from a level of basic trade or apprentice through to diploma level with course standards complementing articulation arrangements between TAFE and other tertiary education institutions.

Pre-vocational courses and Vocational Education Certificate courses enable students to prepare for employment and further study in their career path. Colleges also offer courses in Community Adult Education on a user pays basis in a wide variety of adult leisure-interest areas.

The Department also administers the Government's employment and training policies and programs specifically designed to benefit youth through the Employment and Training Division and its programs specifically designed to benefit youth through the State Youth Affairs Division.

#### Technical and Further Education : Student Enrolments by Program

<i>Program</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
Vocational .....	55,346	61,733	62,694
Foundation .....	21,914	16,506	16,262
Community and adult education .....	23,986	24,287	22,060
<i>Total</i> .....	<i>101,246</i>	<i>102,526</i>	<i>101,016</i>
<i>Reconciled total (a)</i> .....	<i>94,601</i>	<i>96,143</i>	<i>94,383</i>

(a) Reconciled total takes into account students who are enrolled across program areas.

The Department of Employment and Technical and Further Education, provides staff to undertake training supervisory duties throughout the State for the Industrial and Commercial Training Commission. These officers advise on training programs, report on the suitability of training facilities and standards, and supervise contracts of training agreement.

### Migrant education

The State Adult Migrant Education Service, funded through the Commonwealth Adult Migrant Education Program is part of the Department of Employment and Technical and Further Education. It provides a range of English language learning opportunities predominantly for newly-arrived migrants and refugees. Activities include day and



evening classes, individual self-access arrangements, courses in the workplace, correspondence courses and a volunteer home tutor scheme.

The Adult Migrant Education Program also provides for multilingual information officers to present information about living in Australia to newly-arrived migrants and refugees.

### Vocational training

Legislation governing vocational training in South Australia is contained in the *Industrial and Commercial Training Act 1981* which is administered by the Industrial and Commercial Training Commission. The Commission's broad function is to evaluate training already being provided; determine training programs for trades and other declared vocations; develop trainee schemes and courses of pre-vocational training; examine the training needs of special groups; coordinate training resources; organise and supervise contracts of training; promote training programs; encourage skills centres for off-the-job training; and advise the Minister of Employment and Technical and Further Education on training matters.

A major part of the Training Commission's work concerns the administration and supervision of apprenticeships and traineeships. Although the Commission does not provide training or technical education it has the statutory responsibility to determine the training and courses of instruction to be undertaken by apprentices and other trainees. It is also required to approve the training providers in both the public and private employment sectors.

#### Apprenticeships

<i>Particulars</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
New apprenticeships commenced .....	3,674	3,923	4,150
Indentures completed .....	2,772	2,930	3,166
Indentures cancelled .....	495	415	556
Apprentices employed .....	11,477	11,812	12,045

#### Traineeships

<i>Particulars (a)</i>	<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>
Number in training .....	745	756	1,097

(a) At 30 June.

### DEET

The Commonwealth Government has a number of functionally separate programs and schemes related to education and training. They are designed to meet the needs of different groups and are administered by the Department of Employment, Education and Training (DEET) as components of the Department's Education and Labour Market programs.

#### Industry labour adjustment assistance

These programs provide a range of labour market measures under the auspices of the Office of Labour Market Adjustment. The measures cover varied forms of assistance directed to particular industries undergoing structural change and to workers losing employment as a result of structural adjustment or specific government decisions.

#### Innovative Rural Education and Training Program

This program is designed to increase the participation of people involved in rural based industries in further education and training. It is achieved through innovative programs and improved arrangements for the delivery of education and training to rural people; encouraging post-compulsory education institutions in regional areas to work closely

with industry; and increasing the range of courses available by developing short course modules which can be given credit in longer, more formal courses and which are relevant to the specific needs of regional industries.

**Industry Training Support**

The Industry Training Support program encourages improvements in the level and flexibility of industry training, and expands the training infrastructure within Australia to underpin structural adjustment and improved industry efficiency. Assistance is provided through:

- packages of direct financial support to industry and firms to upgrade workforce skills to meet structural and technological change;
- assistance with the development and expansion of industry skill centres;
- encouragement of the development of innovative industry approaches to improved workforce training;
- assistance for the Industry Training Committee Network of National and State/Territory tripartite committees and industry organisations to develop improved training in Australian industry; and
- provision of a range of trainer training courses through the National Trainer Training Service.

**Employment Access Program**

The Employment Access Program is designed to assist jobseekers who are disadvantaged in the labour market to gain access to and secure long-term employment through the provision of measures to suit their circumstances. The Employment Access Program includes the following elements JOBTRAIN, JOBSTART, Special Intervention, Contracted Placement, Post Placement Support, Mobility Assistance and Job Search Training.

**Jobtrain**

JOBTRAIN aims to improve the employment prospects of the long-term unemployed and especially disadvantaged jobseekers by providing training assistance which is directly related to immediate job opportunities in the local labour market, or is directed towards the acquisition of durable, recognised skills for labour market participation.

**Jobstart**

JOBSTART is a scheme which places emphasis on equity of access to employment for long-term unemployed and disadvantaged groups. Wage subsidies are available to employers in the private sector who engage and improve the employment prospects of these disadvantaged jobseekers. Subsidy is paid for a maximum of 26 weeks and rates are geared to the age and relative disadvantage of the jobseeker.

**Special Intervention**

The Special Intervention Program is designed to help jobseekers with literacy/numeracy problems or functional skills gaps, make the transition to the workforce or labour market program participation by providing assessment and remedial training for specific employment barriers.

**Contracted Placement**

The aim of this Program is to assist jobseekers who are very long-term unemployed and who have been unable to use CES services effectively or to benefit from labour market program assistance to gain employment through the use of contracted agencies.

**Post Placement Support**

Post Placement Support aims to assist former jobseekers, who may be at risk of losing their employment, to retain that employment through the provision of support and assistance during their initial period of work.

**Mobility Assistance Scheme**

The primary aim of this scheme is to contribute to the efficient and effective functioning of the labour market by giving jobseekers more equitable access to jobs which are not locally available, whilst also helping employers to obtain workers with appropriate skills.

**Job Search Training**

This program is designed to enhance the job search activity and improve the job attainment rate of jobseekers. The program incorporates Job Clubs which provide an intensive three week training course with practical experience in job search for unemployed people and Job Search Training Courses involving shorter term job search training (22–30 hours) provided through various community organisations.

**SkillShare**

SkillShare enables long-term unemployed people, particularly those unemployed for 12 months or more, and other most disadvantaged unemployed people to obtain and retain employment or to proceed to further education or training through the provision of skills training, employment-related assistance (including personal support and referral) and enterprise activities by groups in the community with demonstrated capacity to deliver such services.

**TUTA**

The Trade Union Training Authority (TUTA) was established by the Commonwealth Government in 1975. It is a statutory authority under the Australian Trade Union Authority Act.

The South Australian Centre conducts more than 150 courses for nearly 3,500 trade unionists each year. The courses consider the rights and responsibilities of the shop steward, grievance handling, communication skills, consultative and negotiating skills, award restructuring, basic economics, workers compensation, occupational health and safety, equal opportunities and industrial advocacy. The Centre is an accredited provider of Health and Safety Representative training to the South Australian Occupational Health and Safety Commission.

**WEA**

The Workers' Educational Association of South Australia Incorporated (WEA) was established in 1913. It is now the largest non-government adult education organisation in Australia. A non-profit community-based association and an institution of Tertiary Education under the SA Tertiary Education Act, it offers a wide range of courses, including computing, training and development and leisure courses. Most of these are of short duration and inexpensive. Significant fee concessions are available to full-time tertiary students and social security recipients.

Through the WEA's Integration and Access Programme, people with physical or mild intellectual disabilities are able to participate in courses.

The WEA Course Guide is published four times a year; in summer, autumn, winter and spring. It is distributed with the local Messenger Press, and the *Adelaide Review*.

**Government outlays on education**

The Commonwealth Government, the State Government and various private benefactors provide assistance to various categories of primary, secondary and tertiary students.

The Commonwealth Government provides a Scheme of Assistance for Isolated Children, and through AUSTUDY provides income and assets tested assistance to secondary and tertiary students aged sixteen years or more. The ABSTUDY scheme gives assistance to full-time secondary and tertiary Aboriginal students. The State Government provides a School Support Grant to all Government schools on a per head basis. A Book and Materials Grant and a per head grant are provided for children attending registered non-government schools.

Assistance for post-graduate students is provided in the form of Research Grants and Post-graduate Awards and Scholarships.

The following tables show Commonwealth, State and local government outlay on education.

**Commonwealth Grants Received for Education Purposes**  
(\$ million)

<i>Particulars</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
<b>Current grants:</b>			
Primary and secondary .....	114.0	124.3	140.2
Tertiary:			
University and other higher .....	201.2	198.5	210.5
Technical and further .....	12.4	11.7	11.6
Other .....	3.3	3.4	4.3
<i>Total current grants</i> .....	<i>330.8</i>	<i>337.8</i>	<i>366.6</i>
<b>Capital grants:</b>			
Primary and secondary .....	18.3	20.7	20.1
Tertiary:			
University and other higher .....	19.6	12.5	7.0
Technical and further .....	11.3	16.4	15.4
Other .....	-	-	1.5
<i>Total capital grants</i> .....	<i>49.4</i>	<i>49.6</i>	<i>44.0</i>
<b>Total grants</b> .....	<b>380.2</b>	<b>387.4</b>	<b>410.6</b>

**State and Local Government : Outlay on Education**  
(\$ million)

<i>Purpose</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
<b>Current outlay:</b>			
Primary and secondary .....	715.8	762.4	804.1
Tertiary:			
University and other higher .....	209.9	235.1	257.3
Technical and further .....	103.2	106.2	121.9
Tertiary n.e.c. ....	3.5	3.7	0.7
Pre-school education and education not defined by level .....	54.6	60.7	63.6
Transportation of students .....	22.2	23.7	28.4
Other .....	2.3	1.3	2.2
<i>Total current outlay</i> .....	<i>1,111.1</i>	<i>1,193.1</i>	<i>1,278.2</i>
<b>Capital outlay:</b>			
Primary and secondary .....	40.7	44.5	45.6
Tertiary:			
University and other higher .....	22.7	31.3	24.9
Technical and further .....	12.3	19.4	21.2
Pre-school education and education not defined by level .....	1.8	1.7	2.1
Transportation of students .....	4.1	1.2	5.6
Other .....	0.1	-	-
<i>Total capital outlay</i> .....	<i>81.7</i>	<i>98.0</i>	<i>99.3</i>

**Further references**

Additional information may be found in the following publications:

- 4203.4 *Participation in Non-Formal Adult Education, South Australia*
- 4218.0 *Tertiary Education, Australia*
- 4221.0 *Schools, Australia*
- 4221.4 *Schools, South Australia*
- 4402.0 *Child Care Arrangements, Australia*
- 4414.0 *Commercial Long Day Child Care, Australia*
- 5510.0 *Expenditure on Education, Australia*

**6.2 SCIENTIFIC AND RESEARCH ORGANISATIONS****CSIRO**

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is the largest research organisation in Australia. It was established as an independent statutory corporation by the *Science and Industry Research Act 1949* (Cwth) and succeeded the former Council for Scientific and Industrial Research (CSIR). The main role of the Organisation is to carry out strategic research on behalf of the Commonwealth for the benefit of Australian industry and the community. The research is mainly in the physical and biological sciences with the principal aim being the transfer of research results into commercial use or other beneficial applications.

The research work of the Organisation is carried out in Institutes which are groupings of Divisions and Units with related research. The Divisions of Horticulture and Human Nutrition have their headquarters in South Australia. The Divisions of Manufacturing Technology, Soils, Applied Physics, Mathematics and Statistics, Water Resources, and Entomology have branch laboratories in Adelaide and the Division of Forestry has a Plantation Forest Research Centre at Mount Gambier.

*Horticulture*

Research at the Division of Horticulture aims to improve the quality, efficiency and sustainability of horticultural production and improve product specification and post-harvest handling of Australian crops of the temperate, subtropical and tropical zones. Emphasis is placed on developing new techniques for the selection and breeding of improved horticultural crops, understanding the complex interactions between plant performance and the environment, understanding the factors limiting the shelf life of horticultural products, and developing improved post-harvest handling techniques. The Division's work centres around high value crops where maintenance and harvest can be mechanised for maximum efficiency and return to the grower. The Division has had a long involvement in viticultural research for the dried vine fruits and wine industries, mainly centred around the Merbein Research Station.

The Division of Horticulture has laboratories located in Adelaide (headquarters), Merbein, Sydney, Brisbane and Darwin. It employs 97 staff and operates with a budget of \$5.6 million per annum, some twenty per cent of which is currently derived from industry sources. In addition to its own research projects the Division is undertaking a number of collaborative ventures with private companies, universities and the State departments of agriculture to commercialise its research findings and make available its expertise to Australian industry.

*Human nutrition*

The Division of Human Nutrition, a member of the Institute of Animal Production and Processing, has its headquarters and main laboratories in the grounds of Adelaide University. It also has facilities at its 'Glenthorne' property at O'Halloran Hill.

The principal aims of the Division are: to study those nutrition-related disorders that account for the greatest morbidity and mortality within the Australian community; to define the factors that lead to optimal growth and development through studies on the

relations between nutrients and human health; to develop techniques for assessing community attitudes to nutrition and the means for influencing behavioural change; and with industry, to develop fat-modified and fibre-enriched foods. The results of this research have implications for the food industry, agriculture, the education system, and community education.

The Division carries out research into the nutritional factors involved in heart disease, high blood pressure, cancer, and obesity. There are also major programs in growth-promoting factors (now included in a Cooperative Research Centre), dietary fats, dietary fibre and environmental health. Surveys are carried out into people's eating habits and their nutritional knowledge and beliefs, and special projects provide information for the food industry, pharmaceutical industry, agriculture, and community education.

### *Soils*

The Division of Soils, a member of the Institute of Plant Production and Processing has its headquarters in Adelaide and laboratories in Canberra and Townsville.

The Division's aim is to apply and increase knowledge of the properties, behaviour and distribution of Australian soils and to promote their profitable and sustainable management. This will benefit the agricultural, pastoral and horticultural industries and aid land and water conservation, urban development and mine waste disposal.

The Division is allied with the SA Department of Agriculture and the University of Adelaide in a Cooperative Research Centre for Soil and Land Management.

### *Manufacturing technology*

The Division of Manufacturing Technology, a constituent Division of the Organisation's Institute of Industrial Technologies, has its headquarters in Preston (Victoria) with laboratories at Preston, Woodville North, Lindfield (NSW) and St Lucia (Qld).

The objectives of the Division are, through research, collaboration, consultation and advice to:

- develop new and improved products and processes which will increase the competitiveness of the Australian metals and related engineering industries, particularly those which are export oriented; and
- develop and apply integrated manufacturing technologies for enhanced productivity in the manufacturing sector.

The Division's Adelaide laboratory conducts research in projects relating to joining and fabrication technology, production management systems and surface engineering.

### *Applied physics*

The Division of Applied Physics has its headquarters at the National Measurement Laboratory in Sydney, with branches in Adelaide, Melbourne and Lucas Heights (NSW). It performs research on problems of importance to Australian industry and the community, and collaborates with industrial and other organisations to exploit its research results. It establishes, maintains and disseminates the Australian legal standards of measurement of basic physical quantities and promotes their use. The Division is divided into five broad programs: Electro-technology; Applied Electricity and Magnetism; Acoustics and Mechanics; Optical Technology; and Plasmas, Thin-films and Thermometry.

The Adelaide Branch provides a local calibration service in the fields of temperature, electricity, mass, density and thermal conductivity. It also conducts research projects in some of these areas. It promotes the services of the Division to local industry, research bodies and the community generally.

### **DSTO Salisbury**

The Defence Science and Technology Organisation (DSTO) is the research and development arm of the Australian Department of Defence, providing scientific and engineering technologies for the Australian Defence Force (ADF).

The DSTO complex at Salisbury, situated on a 1,300 hectare property, is Australia's largest research centre, specialising in electronics and surveillance. Approximately 2,000 DSTO scientists, engineers and support staff are employed, whilst numerous defence industries and elements of the ADF are also housed on the site.

DSTO's nine research Divisions at Salisbury,

High Frequency Radar	Optoelectronics
Maritime Systems	Information Technology
Communications	Combat Systems
Microwave Radar	Guided Weapons
Electronic Warfare	

have achieved international acclaim for innovation and research excellence. (DSTO's Melbourne-based Materials Research Laboratory and Aeronautical Research Laboratory also have components based at Salisbury.)

Among the major projects developed at Salisbury are:

- JINDALEE, the over-the-horizon surveillance radar;
- LADS, the laser airborne depth sounder;
- BARRA sonobuoy (over \$200 million in exports);
- NULKA anti-ship missile decoy; and
- KARIWARA, the towed array for detecting submarines.

DSTO transfers technology, and development work, to industry and provides strong support to higher education institutions. The wider community benefits from DSTO technologies – recent laser developments have enhanced medical research applications, and the Jindalee radar also provides Customs and Immigration surveillance of Australia's northern shores as well as providing critical weather predictions for meteorological authorities.

DSTO's extensive interaction with overseas research institutions and industry ensures that Australia is keeping pace with international technology developments.

An article on DSTO Salisbury, then called Defence Research Centre, appeared in the *South Australian Year Book 1991*.

## Department of Defence

### Woomera

The Woomera Range was established in 1947 as a site for testing experimental ballistic and guided weapons. Defence and other trials, training and exercises are still carried out in the Woomera Prohibited Area although at a much reduced level than in the past. The major activity in Woomera now centres around the Australia/United States Joint Defence Facility, Nurrungar. This facility employs some 500 persons and is part of the US Defence Support Program which provides ballistic missile early warning and other information related to missile launches, surveillance and the detonation of nuclear weapons. The Defence Support Centre Woomera provides a residential and support base for the Joint Defence Facility, Nurrungar and support to Defence activities at the Woomera Range.

### Waite Institute

The Waite Institute was established as a research institute at Urrbrae in 1924, through the generous benefaction of Mr Peter Waite.

Among the many research programs currently being undertaken at the Institute are breeding programs for wheat, barley and faba beans, soil chemistry, viticulture, biological control of insects, investigations into plant viruses, genetic engineering of plants and bacteria, and biology of wool growth and many other projects of vital importance to agriculture in Australia and overseas.

The Institute is the home of the Centre for Basic and Applied Plant Molecular Biology and the Cooperative Centre for Soil and Land Management is located on the Campus.

In addition to the Waite Agricultural Research Institute, the CSIRO Divisions of Soils, Horticulture, Water Resources and Mathematics and Statistics have major laboratories on the Campus, which also houses the Australian Wine Research Institute and elements of the South Australian Department of Agriculture.

In 1991 Roseworthy Agricultural College merged with the University of Adelaide to become the University's Roseworthy Campus facilitating close collaboration in research and teaching between Waite and Roseworthy-based staff. Commencing in 1992 the laboratories of the Department of Agriculture are to be transferred from Northfield to the Waite Campus which will be a centre of agricultural research and teaching unique in Australia and comparable with major institutions overseas.

Further details relating to the Waite Institute may be found in Part 6.1 Education.

### **The Australian Wine Research Institute**

The Australian Wine Research Institute, established in 1955 from a small research unit formed within the University of Adelaide in 1934, promotes research and other scientific work for the Australian wine industry.

The Institute is administered by a nine-member council consisting of representatives from the Australian wine industry, the Commonwealth Scientific and Industrial Research Organisation, the University of Adelaide, with the Director of the Institute an ex-officio member. It is funded by the Grape and Wine Research and Development Corporation, income from a trust fund, and commercial activities.

At its laboratories situated at Urrbrae, the Institute conducts applied research into the microbiology and chemistry of the production of wine and brandy. Extension services assist commercial winemakers with technical problems, provide tested yeast and bacterial cultures for wine fermentation and communicate research developments to the wine industry. Analytical services are also offered, for a fee.

The John Fornachon Memorial Library maintained by the Institute is a specialised library of technical literature on wine and grapes.

### **Technology Development Corporation**

The Technology Development Corporation is a specialised industrial development agency of the South Australian Government established under an Act of Parliament in 1982. The Corporation's prime objective is to encourage the establishment and growth of new technology-based industries and effect the transfer of appropriate new technologies to existing industry.

Technology Park Adelaide occupies an 85 hectare site adjacent to the Levels campus of the University of South Australia. The Park has been developed specifically to provide a supportive environment for the research and development and the commercialisation of new technology.

Innovation House, Innovation House West and Endeavour House, the Corporations multi-tenant buildings, are an integral part of the complex and provide approximately 13,000 square metres of flexible lease accommodation. Both office and workshop space are provided, and tenants have access to a wide range of communal facilities.

The Adelaide Microelectronics Centre facilitates industry access to and promotes greater industry awareness and application of microelectronics technology.

Science Park Adelaide, a joint venture with and adjacent to the Flinders University and Flinders Medical Centre, is Australia's first Science Park. With a site of 30 hectares, activities on the Park emphasise biomedical and biotechnological research and development.



## Other research activities

### *Amdel Limited*

Amdel Limited is involved in mineral technology and materials services. Available services available are the design and manufacture of analytical instrumentation, mineral processing testwork at bench and pilot scale, process control consultancy, and geological services. Materials services provided are testing, product and quality control, and failure analysis.

Products developed and marketed by Amdel include instream analysis for minerals and coal, the high performance density gauge, and the bulk sample analyser.

Subsidiary companies of Amdel Limited provide geoanalytical and chemical analysis, petroleum analysis, and environmental consulting.

Amdel Limited has branches around Australia and extensive representation around the world. Recent sales of equipment and services have been to Portugal, Finland, Canada, India, Thailand, the Philippines, and New Caledonia.

### *IMVS*

The Institute of Medical and Veterinary Science (IMVS), which is subject to control and direction of the Minister of Health under the *Institute of Medical and Veterinary Science Act 1982*, provides diagnostic facilities in all branches of laboratory medicine for the Royal Adelaide Hospital and other metropolitan and country hospitals, public health authorities, industry, and private practitioners. It undertakes some work in veterinary pathology for the Department of Agriculture. Research is conducted into selected problems connected with human disease. The staff of the Institute take part in the teaching of the medical sciences to graduates, students and technicians.

At the Royal Adelaide Hospital the Institute operates a Blood Transfusion Service, 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 need for laboratory services and blood transfusions in rural areas, the Institute operates eleven regional laboratories.

The Institute's research and development projects are assisted by the National Health and Medical Research Council, other research-funding bodies, certain private firms and benefactors.

Medvet Science Pty Ltd is the associated private company set up to market the intellectual property of the medical and scientific staff of the IMVS.

The Institute administers the Hanson Centre for Cancer Research. This Centre comprises a series of research laboratories which are shared between the Institute and Royal Adelaide Hospital, and the Centre has been established for the specific purpose of conducting research into various aspects of cancer.

### *Universities*

#### The University of Adelaide

The *Faculty of Agricultural and Natural Resource Sciences* is one of Australia's leading agricultural science faculties, complementing the Waite Agricultural Research Institute, the Waite campus hosts a wide range of collaborative agricultural research programmes in Australia and overseas, focusing on agricultural biochemistry, plant breeding and weed science, animal science, cereal biotechnology, entomology and the biological control of insects, plant pathology and physiology and soil science and water quality.

The *Centre for Basic and Applied Plant Molecular Biology* was established in 1990 and focuses on two broad areas – plant molecular virology and cereal biotechnology. In 1991, the *Roseworthy Agricultural College* merged with the University, adding its research strength in dryland farming, rangeland management and viticulture and oenology to the research profile of the University.

In March 1991 the University was awarded Federal Government funding for the establishment of three cooperative research centres. Research participants in the *Cooperative Research Centre for Tissue Growth and Repair* are the University Departments of Biochemistry, Animal Sciences and Chemical Engineering, the CSIRO Division of Human Nutrition, the Child Health Research Institute, the Dairy Research and Development Corporation, GroPep Pty Ltd and Bresatec Ltd. The Centre will investigate the molecular mechanisms which control tissue growth and repair and design new growth factors and formulations for the treatment of burns and other surface wounds, gut disease, polytrauma as well as bone and cartilage injuries. It will also establish a small-scale manufacturing facility to manufacture the recombinant proteins and a fractionation plant for the production of bioactive products from milk and cheese whey.

The *Cooperative Research Centre for Australia's Petroleum Industry* is an unincorporated joint venture between the University of Adelaide's *National Centre for Petroleum Geology and Geophysics*, the University of New South Wales' Centre for Petroleum Engineering and CSIRO's Division of Exploration Geoscience and Geomechanics. Its research will be directed toward optimising the location and development of Australia's scarce petroleum reserves and toward unlocking reserves whose viability depends on the development of new technology. It will be Australia's major training centre for the industry.

The *Cooperative Research Centre for Soil and Land Management* will involve staff of the CSIRO's Division of Soils, the South Australian Department of Agriculture and the Soil Science Department of the University co-located on the Waite campus of the University. It will aim to provide the knowledge and expertise to develop ecologically sustainable systems of land use and to reduce the pollution of soils in urban and rural areas.

Research into inclusion complexes, gas phase ion-molecule chemistry and chemical synthesis and mechanisms is conducted in the University's Departments of Organic Chemistry and Physical and Inorganic Chemistry.

Research in engineering and applied science is conducted in the Faculty of Engineering and in the Faculty of Mathematical and Computer Sciences, including the University's *Consortium for Telecommunications Studies* and the *Teletraffic Research Centre*, the *Centre for Gallium Arsenide VLSI Technology*, the *Industry Noise Control Group* and the *Centre for Computer Systems and Software Engineering*. Areas of research investigation in applied mathematics include hydrodynamics, solid mechanics and applied probability.

The research in the Humanities and Social Sciences involve many interdisciplinary research centres focusing on particular regions or concerns. These include the *Centre for Asian Studies*, the *Corporate and Business Law Centre*, the *Mawson Graduate Centre for Environmental Studies*, the *Research Centre for South-East Asian Ceramics*, the *Centre for International Economic Studies*, the *Research Centre for Women's Studies* and the *South Australian Centre for Economic Research* (with Flinders University).

Major areas of research in physics include: theoretical nuclear and particle physics and models of nuclear structure; experimental studies of high energy astrophysical processes; cosmology; ultra-violet molecular physics and physical archometry. In pure mathematics the focus is in harmonic analysis, differential geometry and operator algebra, number theory and discrete mathematics.

The National Health and Medical Research Council funded Road Accident Research Unit is one of many major programmes in the medical sciences. Others involve collaborative research with scientists in the teaching hospitals, the IMVS, the University of South Australia and the Division of Human Nutrition of CSIRO and include projects investigating road trauma, hypertension, carcinogenesis and oncology, and occupational and environmental health.

Research in dental science is conducted in the Faculty of Dentistry, including the Oral and Maxillofacial Surgery Unit and the Dental Statistics and Research Unit. Areas of research investigation include dental health services, oral disease, dental materials and clinical research.

To encourage technology transfer from the University to the market place, Luminis Pty Ltd was established by the University of Adelaide in 1984. Luminis seeks out new opportunities for contract research and consulting. It has been involved in the establishment of a range of high technology companies including Bresatec, Integrated Silicon Design, Transponder Australia, Repromed Pty Ltd and Repromed (Singapore) Pty Ltd. Luminis is wholly owned by the University of Adelaide.

In October 1989 the University of Adelaide established a *Centre for Intercultural Studies and Multicultural Education*. The Centre's board includes members of the University's Faculties of Arts, Science, Medicine and Engineering, members of its administrative staff and its International Relations Branch, and a representative of the South Australian Multicultural and Ethnic Affairs Commission. The Centre aims to build upon a wide range of cross-cultural research interests within the University and pursues studies in cultural, linguistic and racial pluralism from a specifically Australian perspective.

The *Centre for Language Teaching and Research* was established in January 1991. Its management committee includes representatives from South Australia's three universities, the South Australian Institute of Languages, the Office of Tertiary Education, the Department of Employment and Technical and Further Education and the schools sector. Objectives of the Centre include the identification, evaluation and documentation of expertise in applied linguistics in the South Australian tertiary sector and the development of a diploma course in applied linguistics with a strong orientation towards the needs of the schools sector.

#### Flinders University

The *Institute for Atmospheric and Marine Sciences* was established in 1972 to ensure 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. The Institute's Tidal laboratory is now designated as 'The National Tidal Facility' 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. Major facilities include a specialised research aircraft.

The *Flinders Institute of 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, electronic structure of materials, low and intermediate energy nuclear theory, quantum field theory, statistical physics, electron transport phenomena and quantum and surface chemistry.

In 1976, the Council of the Flinders University approved the formation of the *Institute for Australasian Geodynamics*, to provide a focus for geodynamic research within the School of Earth Sciences. It also aims to foster cooperative studies and facilitate the training of Asian and Australian researchers in the geodynamics of Australasia, including research coordination, publication of reports and the maintenance of an information data bank.

The *Centre for Neuroscience* was established in 1977 to foster the interests in the neurosciences that existed within the Schools of Medicine, Biological Sciences and Social Sciences and in the Flinders Medical Centre. The Centre also acts as a State-wide resource for the neurosciences. At present there are fifty-nine members and sixteen associates.

The *Cancer Research Unit* was established in 1977 as a joint development between the School of Medicine and the School of Biological Sciences. Members of both Schools are investigating various aspects of cancer as their major research interest. Interests range from the theoretical (e.g. DNA structure, control of cell proliferation) to the practical (e.g. treatment). The Unit was established not only to encourage collaborative research projects but also to facilitate the acquisition of major items of equipment which could not be justified by a single user.

The *Centre for South Australian Economic Studies* was established in 1982 with the support of the South Australian Government as a joint research institution of the Flinders University of South Australia and the University of Adelaide, to focus specifically upon the South Australian economy. From an initial membership of eight private organisations who sponsor the work of the Centre, it now has more than forty Corporate Members. Three times a year it presents a detailed report on the South Australian economy at a briefing for Corporate Members and the Government. The report considers national and international economic trends and how they are likely to impact upon South Australian industries. It also undertakes consulting projects and produces Occasional Papers for its members.

The *National 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*, a working paper series, and books.

The *Centre for Research in the New Literatures in English* (CRNLE) aims to promote 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 interdisciplinary approaches to the study of the literatures and societies concerned.

The *National Centre for Petroleum Geology and Geophysics* is composed of a core of staff, combined with the School of Earth Sciences at Flinders University, the Department of Geology and Geophysics at Adelaide University, and the School of Applied Geology at the University of South Australia. It is funded by the Commonwealth and State Governments, as well as by industry. Its aim is to train professional geoscientists for the petroleum exploration industry. Research work is also undertaken.

The *Centre for Groundwater Studies* is a focus of research, expert advice and training for the water industry in Australia, on the behaviour of water and associated contaminants beneath the soil surface, and on evapo-transpiration. The Centre's partners are CSIRO's Division of Water Resources; the School of Earth Sciences, Flinders University; the South Australian Engineering and Water Supply Department; and the South Australian Department of Mines and Energy. Facilities of all the institutions involved in the Centre are available for Centre activities. The Centre was formed in 1987 with funding from the Australian Water Research Advisory Council, now the Land and Water Resources Research and Development Corporation.

The *Electronic Structure of Materials Centre* was established in 1988 as one of the Commonwealth Government's Special Research Centres. The main research activity of the Centre is to investigate the structure of materials by direct observation of the motion of electrons in materials, particularly semiconductors, superconductors, metals and surface molecular layers.

The *Centre for Development Studies* was established in 1980 in order to bring together people from a variety of disciplines with a common interest in development. Development is seen as encompassing those processes of social, political and economic change involved in the alleviation of poverty and the improvement of the living standards of the

populations of the Third World. The Centre at this stage has no staff of its own, and its activities are managed by a committee whose members come from several disciplines in the School of Social Sciences, the School of Medicine, and the School of Humanities.

In July 1986 the University established the *Centre for Multicultural Studies*. The Board of Management is composed of representatives from institutions of higher education and from the government. The objectives of the Centre include teaching and research on economic, social, legal and medical issues. The Centre also supports language studies, and the improvements of cross-cultural communication skills in professional education. The Centre holds regular seminars and an annual conference on a major theme related to multicultural study. It also conducts research and policy analysis for external bodies including Government agencies and community organisations. The Centre publishes *Papers in Multicultural Studies*.

The *Pan-Pacific Institute* was established within the School of Social Sciences in late 1990 to encourage research on political, economic and related issues involving the Pacific Rim nations.

The *Liver Research Institute* was established in 1990 to provide an intellectual and physical focus for the coordination of liver research within the School of Medicine. The Institute will coordinate a seminar program, internal research programs and resources, facilitate liaison with external organisation, support visiting scientists and provide postgraduate training.

The *National Tidal Facility* was established in 1989 by the Commonwealth Government following the recommendation of the McKinnon Report (Review Committee in Marine Industries, Science and Technology) and was based upon the existing Tidal Laboratory at the University. The Facility provides a port operation package to seventy Australian Ports, provides technical and advisory support on matters of tides to the Hydrographic Service of the Royal Australian Navy and acts as an operational centre for monitoring greenhouse rising sea level and research into the links between sea level and climate over the Australian coastal zone, the ASEAN region and the South Pacific. Expertise focuses upon sea level and tidal time series analysis.

The *CSIRO/Flinders Joint Research Centre in Information Technology* was established in 1990 between the CSIRO's Institute of Information Science and Engineering and the School of Information Science and Technology at the University. The focus of research within the Centre is on collaboration technology, defined as a set of computer-based tools, techniques, theories, multimedia communications and logistics aimed at enhancing the ability of people to perform group work, particularly over long distances and between different time zones. Cooperation with other disciplines within the University, as well as with national and international participants, is developing and will be encouraged.

The *National Centre for Education and Training on Addiction* was established in 1991. Its main activities are the evaluation of existing Addiction Studies Courses, the development of curricula for health and welfare workers at undergraduate and postgraduate levels and the provision of training programmes for a wide range of people whose work brings them into contact with people with alcohol or other drug problems.

#### *Other bodies*

##### Department of Fisheries

The South Australian Department of Fisheries conducts research programs on the rock lobster, prawn, marine scalefish, abalone, and inland waters' fisheries which includes tagging, stock sampling, and market measuring work. The Department also undertakes research and development of fisheries models for demonstrating to managers and fishers the impact of different management options on fish stocks. Research is also directed towards the development of aquaculture in South Australia as well as a greater understanding of the marine habitat through ecological and oceanographic studies. The

*Fisheries Act 1982* provides for 100 per cent of all licence fees levied under the Act to be placed in the Department's Research and Development Fund. Under new management and research arrangements introduced by the Commonwealth in 1991 the Fisheries Research and Development Corporation provides significant funding for fisheries research throughout Australia.

Woods and  
Forests Department

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, a Registered Research Association, maintains its own research facilities and works very closely with the South Australian Regional Station of the CSIRO's Division of Forestry and Forest Products 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. Joint research is being carried out into tree breeding with the Southern Tree Breeding Association. The Association is producing seed of improved quality to grow seedlings for planting in radiata pine forest areas.

Research activities aim to increase the productivity of forest lands through competition control, maintenance of soil organic matter, nutrient management, genetic improvement of planting stock, alternative silvicultural treatments and effective management of pests and diseases. Research is also being undertaken into the use of tree crops for effluent disposal, propagation techniques, broadscale direct seeding of eucalypt species and use of species other than *Pinus radiata* for pulpwood production.

Utilisation research is aimed at seasoning technology, preservative treatments and reconstituted products.

Australian Centre  
for Medical Laser  
Technology Inc.

The Australian Centre for Medical Laser Technology Inc. is an independent, non-profit organisation which has been established to promote the safe and effective use of medical lasers.

It is Australia's first national medical laser centre which aims to establish national training programmes; provide information on the research and development of new technologies and their applications; and accreditation facilities.

As well as working with major hospitals throughout Australia and the University of South Australia, the Australian Centre for Medical Laser Technology is also a collaborative centre of the Australian Institute of Health.

## Chapter 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 1986 Census the definition of the labour force was revised to accord with the recommendations of the Thirteenth International Conference of Labour Statisticians (1982), and the revised approach has been adopted for the monthly labour force survey.

### Labour Force Survey

In addition to complete census counts, estimates of the civilian labour force are prepared from the results of surveys based on 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 have been conducted on a monthly basis. The proportion of the population included in the surveys varies from State to State (0.87 per cent in South Australia) but in aggregate about 0.58 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 thirty-five hours per week; as well as age, sex, birthplace, family status, occupation and industry characteristics.

Labour Force Status of the Civilian Population  
Aged 15 Years and Over

May	Employed	Unem- ployed	Labour force	Not in labour force	Civilian popu- lation aged 15 years and over	Un- employ- ment rate (a)	Partici- pation rate (b)
	'000	'000	'000	'000	'000	per cent	per cent
MALES							
1984 .....	350.2	34.2	384.5	129.8	514.3	8.9	74.8
1985 .....	356.7	30.9	387.6	134.1	521.6	8.0	74.3
1986 (c) .....	364.1	32.3	396.3	134.0	530.3	8.1	74.7
1987 .....	363.0	33.3	396.4	141.3	537.7	8.4	73.7
1988 .....	362.0	34.8	396.7	148.5	545.3	8.8	72.8
1989 .....	379.9	33.3	413.2	140.1	553.2	8.0	74.7
1990 .....	391.3	30.5	421.8	138.4	560.2	7.2	75.3
1991 .....	380.5	41.4	421.9	146.2	568.1	9.8	74.3

Labour Force Status of the Civilian Population  
Aged 15 Years and Over (continued)

May	Employed '000	Unem- ployed '000	Labour force '000	Not in labour force '000	Civilian	Un- employ- ment rate (a) per cent	Partici- pation rate (b) per cent
					popu- lation aged 15 years and over '000		
FEMALES							
1984	214.1	23.9	238.0	296.7	534.7	10.0	44.5
1985	225.7	21.8	247.6	293.9	541.4	8.8	45.7
1986 (c)	244.1	22.3	266.4	281.9	548.3	8.4	48.6
1987	245.2	25.4	270.6	284.4	555.1	9.4	48.8
1988	257.5	23.2	280.6	282.3	562.9	8.3	49.9
1989	269.0	21.7	290.7	279.5	570.2	7.5	51.0
1990	273.2	21.3	294.6	282.1	576.7	7.2	51.1
1991	277.2	27.7	304.9	279.2	584.1	9.1	52.2
PERSONS							
1984	564.3	58.1	622.4	426.5	1,048.9	9.3	59.3
1985	582.4	52.8	635.1	427.9	1,063.1	8.3	59.7
1986 (c)	608.1	54.6	662.7	415.9	1,078.6	8.2	61.4
1987	608.2	58.8	667.0	425.7	1,092.8	8.8	61.0
1988	619.4	57.9	677.4	430.8	1,108.2	8.6	61.1
1989	648.9	55.0	703.9	419.6	1,123.4	7.8	62.7
1990	664.5	51.8	716.3	420.5	1,136.8	7.2	63.0
1991	657.7	69.1	726.7	425.4	1,152.2	9.5	63.1

(a) The unemployment rate for any group is the number unemployed expressed as a percentage of the labour force (i.e. employed plus unemployed) in the same group.

(b) The labour force participation rate for any group is the civilian labour force expressed as a percentage of the civilian population aged 15 years and over in the same group.

(c) Estimates for periods before April 1986 are based on the old definition of employed persons.

In the labour force survey, a revised definition of employed persons, which conforms closely to the international standard definition specified by the International Labour Organisation (ILO), was introduced from April 1986. It includes all persons aged 15 years and over who during the survey week worked for one hour or more without pay in a family business or on a farm (i.e. unpaid family helpers), whereas, before April 1986, only those working 15 hours or more in the survey week were included. This is reflected in the following table, in which employed persons are classified by status of worker.

Employed Persons : Status of Worker  
( '000 )

May	Wage and salary earners			Employers and self-employed		
	Males	Females	Persons	Males	Females	Persons
1986	294.8	210.0	504.9	65.6	30.0	95.6
1987	293.3	210.1	503.4	67.1	32.1	99.2
1988	289.3	221.2	510.5	68.8	31.7	100.5
1989	310.8	232.0	542.8	65.3	34.4	99.6
1990	322.5	234.6	557.1	66.8	35.0	101.8
1991	306.5	237.4	543.8	69.7	36.0	105.8



The following table shows employed persons classified according to the Australian Standard Classification of Occupations (ASCO), which was introduced in the August 1986 Labour Force Survey. The structure of ASCO is based on the kind of work performed and is defined primarily in terms of the level and specialisation of skill required to satisfactorily perform primary tasks as its classificatory variable, and is therefore significantly different from the previous classification. The classification is broken down into major group, minor group, unit group and individual occupation levels.

#### Employed Persons : Occupation Major Group, May 1991

Occupation major group (a)	Persons			
	Males	Females	Number	Proportion of total
	'000	'000	'000	per cent
Managers and administrators .....	65.5	21.6	87.1	13.2
Professionals .....	44.2	33.8	78.0	11.9
Para-professionals .....	22.0	19.4	41.4	6.3
Tradespersons .....	84.7	10.3	95.0	14.4
Clerks .....	21.8	76.0	97.8	14.9
Salespersons and personal service workers .	35.1	65.6	100.7	15.3
Plant and machine operators, and drivers ...	40.3	7.2	47.5	7.2
Labourers and related workers .....	66.8	43.3	110.1	16.7
<i>Total</i> .....	<i>380.5</i>	<i>277.2</i>	<i>657.7</i>	<i>100.0</i>

(a) Classified according to the Australian Standard Classification of Occupations.

'Industry' refers to the branch of productive activity, trade or service in which an individual works or carries out an occupation. The Australian Standard Industrial Classification (ASIC), designed primarily as a system for classifying establishments (e.g. individual mines, factories, shops etc.) by industry, is used to classify persons in the labour force survey by the industry in which they are employed, as shown in the following table.

#### Employed Persons : Industry, May 1991

Industry	Persons			
	Males	Females	Number	Proportion of total
	'000	'000	'000	per cent
Agriculture, forestry, fishing etc. ....	34.8	13.7	48.5	7.4
Mining .....	3.8	(a)0.9	4.7	0.7
Manufacturing .....	80.4	26.9	107.3	16.3
Electricity, gas and water .....	9.5	(a)0.6	10.1	1.5
Construction .....	34.4	4.8	39.2	6.0
Wholesale and retail trade .....	75.0	60.9	135.9	20.7
Transport and storage .....	21.9	3.8	25.6	3.9
Communication .....	8.0	2.9	10.9	1.7
Finance, business services etc. ....	33.3	34.4	67.7	10.3
Public administration, defence .....	14.3	9.1	23.4	3.6
Community services .....	45.1	87.8	132.9	20.2
Recreation, personal services etc. ....	20.1	31.3	51.5	7.8
<i>Total</i> .....	<i>380.5</i>	<i>277.2</i>	<i>657.7</i>	<i>100.0</i>

(a) Subject to sampling variability too high for most reasonable uses.

## Civilian Labour Force : Age Group, May 1991

Age group (years)	Number ('000)			Participation rate (a) (per cent)		
	Males	Females	Persons	Males	Females	Persons
15-19 .....	33.5	30.5	64.0	60.7	57.6	59.2
20-24 .....	53.4	42.4	95.7	89.0	74.3	81.8
25-34 .....	115.3	80.3	195.6	94.7	68.3	81.7
35-44 .....	104.8	81.8	186.6	95.1	74.8	85.0
45-54 .....	70.0	51.2	121.2	90.4	67.2	78.9
55-59 .....	23.1	11.6	34.7	73.7	37.7	55.8
60-64 .....	15.0	5.1	20.2	45.5	15.5	30.4
65 and over .....	6.8	(b)2.0	8.8	8.6	(b)1.9	4.7
<i>Total labour force</i> .....	<i>421.9</i>	<i>304.9</i>	<i>726.7</i>	<i>74.3</i>	<i>52.2</i>	<i>63.1</i>

(a) The participation rate for any group is the civilian labour force expressed as a percentage of the civilian population aged 15 and over in the same group.

(b) Subject to sampling variability too high for most reasonable uses.

Further details may be obtained from the following bulletins: *The Labour Force, Australia, Preliminary* (6202.0); *The Labour Force, Australia* (6203.0). In addition, *Labour Force, South Australia* (6201.4) contains detailed figures for South Australia.

## Special studies

The sample of dwellings referred to in respect of the labour force survey provides the framework for a number of special studies. In July 1990, a survey of unemployed persons was conducted. The number of unemployed persons published in *The Labour Force, Australia, July 1990* (6203.0) differs from that published in this survey because persons who were stood down were excluded. Information was collected on job search experience including difficulties in finding work, steps taken to find work, whether offers of employment had been received as well as educational attainment and particulars of last job, if any.

There were 48,803 unemployed persons in South Australia in July 1990 and the most frequently reported difficulty in finding work was 'lacked necessary skills/education', closely followed by the belief that there were 'no vacancies at all', and 'considered too young or too old by employers'.

## Unemployed Persons : Main Difficulty in Finding Work, July 1990

Main difficulty in finding work during current period of unemployment	Males	Females	Persons
Own ill health or injury .....	3,419	(a)1,083	4,502
Considered too young or too old by employers ...	4,318	2,961	7,279
Unsuitable hours .....	(a)690	(a)1,347	(a)2,037
Too far to travel/transport problems .....	(a)1,441	(a)525	(a)1,966
Lacked necessary skills/education .....	4,285	3,379	7,664
Language difficulties .....	(a)1,039	(a)718	(a)1,757
Insufficient work experience .....	2,536	2,628	5,164
No vacancies in line of work .....	2,484	(a)1,939	4,423
No vacancies at all .....	4,923	2,648	7,571
Difficulties with ethnic background .....	(a)-	(a)133	(a)133
Other difficulties .....	(a)1,859	(a)1,562	3,421
No difficulties reported .....	(a)1,350	(a)1,536	2,886
<i>Total</i> .....	<i>28,344</i>	<i>20,459</i>	<i>48,803</i>

(a) Subject to sampling variability too high for most reasonable uses.

Further details may be found in the bulletin *Job Search Experience of Unemployed Persons, Australia, July 1990* (6222.0).

## Employed wage and salary earners

In the September quarter of 1983 a quarterly Survey of Employment and Earnings was introduced to obtain from employers information on the numbers of wage and salary earners employed each month and their quarterly earnings. (The earnings data is input into the estimates of national income for the quarterly Australian National Accounts.) The series provides a measure of occupied jobs with no adjustment for multiple job holding.

The survey covers a sample of private employers and government units. Not all employers are covered; the principal exclusions are private employers engaged in agriculture, forestry, fishing and hunting, private households and the permanent defence forces. The series differs from estimates of employed wage and salary earners provided by the Labour Force Survey. For further information see *Employed Wage and Salary Earners, Australia* (6248.0).

### Employed Wage and Salary Earners (<sup>'000</sup>)

May	Industry				Sector		
	Manufac- turing	Wholesale and retail trade	Community services	Other	Government		
					Common- wealth	State	Private
MALES							
1985 .....	72.3	50.6	37.1	110.0	27.7	55.4	180.8
1986 .....	73.4	47.9	38.6	110.1	27.1	55.5	181.2
1987 .....	72.9	47.1	43.1	108.3	26.7	56.0	182.8
1988 .....	73.2	53.7	42.2	113.0	25.9	55.0	195.2
1989 .....	76.7	56.7	41.0	113.6	23.3	55.3	203.6
1990 .....	76.1	53.3	44.7	115.0	22.8	56.0	204.3
FEMALES							
1985 .....	21.7	40.4	69.6	57.9	9.6	48.6	129.3
1986 .....	22.4	40.1	70.6	62.9	9.7	50.8	133.2
1987 .....	24.4	40.2	73.5	68.1	9.5	51.6	142.8
1988 .....	24.2	46.9	73.2	66.2	9.5	52.1	146.4
1989 .....	26.6	54.0	77.0	67.4	9.6	52.8	160.0
1990 .....	25.8	51.2	82.1	71.3	10.0	55.5	162.3
PERSONS							
1985 .....	94.0	91.0	106.6	168.0	37.3	103.9	310.1
1986 .....	95.8	88.0	109.2	172.9	36.8	106.2	314.4
1987 .....	97.2	87.3	116.5	176.5	36.2	107.5	325.6
1988 .....	97.4	100.6	115.4	179.2	35.4	107.1	341.7
1989 .....	103.2	110.7	118.0	181.0	33.0	108.1	363.6
1990 .....	101.9	104.5	126.8	186.3	32.8	111.5	366.6

## Unemployment

### Labour force surveys

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.

## Unemployed Persons

May	Looking for full-time work			Looking for part-time work	
	Aged 15-19 years	Aged 20 years and over	Total		Total
NUMBER ('000)					
1986	11.2	34.2	45.4	9.2	54.6
1987	11.9	37.6	49.5	9.3	58.8
1988	10.4	38.2	48.6	9.4	58.0
1989	8.3	37.6	45.9	9.1	55.0
1990	8.8	33.0	41.9	9.9	51.8
1991	9.3	49.9	59.2	9.9	69.1
UNEMPLOYMENT RATE (per cent) (a)					
1986	23.6	7.2	8.7	6.4	8.3
1987	25.8	8.0	9.6	6.2	8.7
1988	22.5	8.0	9.2	6.2	8.4
1989	17.3	7.6	8.4	5.7	7.7
1990	21.3	6.5	7.6	6.0	7.1
1991	27.5	9.7	10.8	5.5	9.3

(a) The unemployment rate for any group is the number unemployed expressed as a percentage of the labour force (i.e. employed plus unemployed) in the same group.

Further details may be obtained from the following bulletins: *The Labour Force, Australia, Preliminary* (6202.0); *The Labour Force, Australia* (6203.0). In addition, *Labour Force, South Australia* (6201.4) contains detailed figures for South Australia.

## Job vacancies

Estimates of the number of job vacancies are derived from quarterly sample surveys of employers conducted by telephone.

## Job Vacancies

May	Manufacturing (a)	Other industries (b)	Total vacancies	Job vacancy rate
	'000	'000	'000	per cent
1986	0.7	(c)1.8	2.6	0.5
1987	0.5	(c)2.9	(c)3.5	(c)0.7
1988	(c)0.8	(c)2.3	(c)3.1	2.7
1989	(c)1.6	1.9	3.5	0.7
1990	0.8	(c)2.6	(c)3.4	(c)0.7
1991	(c)0.6	(c)0.8	(c)1.5	(c)0.3

(a) Australian Standard Industrial Classification (ASIC) Division C.

(b) ASIC Division A-L excluding Division C (Manufacturing), Subdivision 01, 02 (Agriculture etc.), 94 (Private Households Employing Staff) and defence forces.

(c) Subject to sampling variability too high for most practical uses.

Further information is contained in the bulletin *Job Vacancies and Overtime, Australia* (6354.0).

## Employment services

The Commonwealth Employment Service (CES), administered by the Department of Employment, Education and Training (DEET), assists people seeking employment to obtain positions best suited to their training, experience, abilities and qualifications and assists employers seeking labour to obtain employees best suited to the demands of the employers' particular class of work. The DEET has a wide range of labour market and training programs which have been developed to meet these objectives.

The State Government is also involved directly in employment and training programs designed to alleviate unemployment. The Special Employment Initiatives Unit of the Office of Employment and Training is responsible for developing and administering these schemes.

There are also a number of private employment agencies, all of which are required to register with the Department of Labour.

## 7.2 INDUSTRIAL RELATIONS

In Australia a unique system of conciliation and arbitration by Government 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'. The *Conciliation and Arbitration Act 1904* (Cwlth) 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 inconsistent with an award of a Federal tribunal, the latter prevails to the extent of the inconsistency.

## Industrial tribunals

The Australian Conciliation and Arbitration Commission makes determinations on standard hours, national wage cases, the minimum wage, equal pay principles, annual leave and long service leave.

The South Australian legislation governing State intervention in industrial relations is the *Industrial Conciliation and Arbitration Act 1972*, which provides for an Industrial Court, an Industrial Commission and Conciliation Committees.

Employer or employee associations may apply for registration which confers a legal corporate status and allows ready access to the Commission.

Further details regarding State industrial tribunals may be found in the Annual Report of the Industrial Court and Commission.

## Employee associations

At 30 June 1990 there were 131 separate unions, with a total membership of 304,300, 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. The central labour organisation for the State is the United Trades and Labor Council of South Australia, founded in 1884.

## Trade Unions

At 30 June	Members			Proportion of members to total employees		
	Males	Females	Persons	Males	Females	Persons
	'000	'000	'000	per cent	per cent	per cent
1985 .....	183.2	89.9	273.1	65	46	57
1986 .....	178.7	89.7	268.5	63	45	55
1987 .....	184.3	86.6	270.9	66	41	55
1988 .....	183.9	95.3	279.2	63	41	55
1989 .....	187.3	110.6	297.9	63	48	57
1990 .....	189.4	114.8	304.3	63	49	57

Further details are contained in the bulletin *Trade Union Statistics, Australia* (6323.0).

### Employer associations

At the end of December 1990 there were 18 associations of employers registered with the South Australian Industrial Court and Commission. In industrial matters four are dominant:

- (a) the Chamber of Commerce and Industry (SA) Inc. 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;
- (b) the Engineering Employers Association, South Australia, represents the varied interests of the State's metal and engineering industry in all facets of industrial relations, education and training (including a group apprenticeship scheme), trade, economic and legislative matters;
- (c) the Motor Trade Association of SA Inc. is an industrial organisation aimed at presenting the interests of employers in the motor industry, both in the retail sector and in the distribution and manufacturing sectors; and
- (d) the South Australian Employers' Federation Inc. is an industrial relations-oriented employer body which provides advice and representation to employers engaged in all facets of South Australian industry.

### Industrial disputes

Estimates of industrial disputes are compiled from data obtained from employers, trade unions and government authorities. The statistics relate only to disputes involving stoppages of work of ten man-days or more at the establishments where the stoppages occurred. Effects on other establishments because of lack of materials are excluded.

Details of the total number and extent of industrial disputes occurring in South Australia are shown in the following table.

## Industrial Disputes

Year ended 31 December	Disputes	Workers involved	Working days lost	
			Total	Per thousand employees
			'000	No.
1984 .....	80	15.5	25.5	56
1985 .....	88	14.5	22.5	48
1986 .....	111	58.9	46.3	95
1987 .....	102	41.4	44.6	91
1988 .....	87	39.9	47.0	93
1989 .....	68	37.4	35.0	67
1990 .....	49	72.5	124.6	234

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 lost are included in the appropriate year. Workers involved in more than one dispute during the year are counted once for each dispute. Workers laid off at the establishment where the stoppages occurred, but who are not themselves parties to the dispute are included.

Prior to 1984 estimates of working days lost per thousand employees were calculated using estimates of employees from the labour force survey excluding those employed in agriculture and in private households. From 1984, estimates of employees from the Survey of Employment and Earnings combined with estimates of employees in agriculture and in private households obtained from the Labour Force Survey have been used to derive the denominator. Because of difficulties in identifying all participants in each dispute the statistics should be regarded as giving only a broad measure of the extent of work stoppages.

Further details may be found in the bulletin *Industrial Disputes, Australia* (6322.0).

## 7.3 WAGES, HOURS AND LABOUR COSTS

### Wages

The Industrial Commission of South Australia has for many years granted flow-ons of the National determination to State awards, largely using the Australian Industrial Relations Commission guidelines but with special provisions to allow for South Australian situations. Some details for recent years may be found in the annual report of the Industrial Court and Commission of South Australia and for earlier years on pages 302-3 of the *South Australian Year Book 1984*.

Award rates of pay indexes are produced for full-time adult wage and salary earners whose minimum rates of pay are normally varied in accordance with awards, determinations and collective agreements. The indexes are constructed for males and females separately and are based on minimum weekly and hourly award rates. They measure only the relative trends in award rates and have a base of 100.0 at June 1985. Thus they do not reflect any subsequent effects of compositional changes in the labour force or in industry structure. Excluded from the indexes are serving members of the defence forces, employees in agriculture, forestry, fishing and hunting and in private households.

Index of Weekly Award Rates of Pay : Full-time Adult  
Employees, Industry  
(Base of Index: June 1985 = 100.0)

<i>Industry</i>	<i>April 1990</i>	<i>April 1991</i>
MALES		
Mining .....	126.4	130.2
Manufacturing: .....	132.3	137.2
Food, beverages and tobacco .....	131.5	138.1
Metal products, machinery and equipment .....	132.4	136.3
Transport equipment .....	129.6	133.8
Other manufacturing (a) .....	133.0	138.7
Construction .....	129.2	133.2
Wholesale trade .....	131.3	136.9
Retail trade .....	129.6	137.6
Finance, property and business services .....	129.0	132.0
Community services .....	125.7	128.7
All industries (b) .....	129.2	133.3
FEMALES		
Manufacturing: .....	132.5	137.6
Food, beverages and tobacco .....	128.4	133.5
Metal products, machinery and equipment .....	135.3	139.3
Other manufacturing .....	132.2	139.3
Wholesale trade .....	129.2	136.9
Retail trade .....	128.9	136.1
Finance, property and business services .....	128.9	133.6
Community services .....	127.6	129.8
All industries (b) .....	129.0	133.2

(a) Includes wood, wood products and furniture, non-metallic mineral products and miscellaneous manufacturing.

(b) Excludes employees in agriculture, forestry, fishing and hunting and in private households.

Further details may be found in the bulletin *Award Rates of Pay Indexes, Australia* (6312.0).

## Earnings

Various measures of earnings of employees are available, the principal of which is the quarterly average weekly earnings series. A sample survey of employers collects information on earnings in respect of a specified pay week generally at or about the middle of each quarter. Data are sought at a finer level of disaggregation in each December quarter survey.

Average weekly ordinary time earnings refers to one week's earnings attributable to award, standard or agreed hours of work. It is calculated before taxation and other deductions and includes over award and penalty pay, shift and other allowances, commissions and retainers and other payments such as bonuses related to the reference period.

Weekly total earnings is weekly ordinary time earnings plus weekly overtime earnings. Changes in the average may be affected not only by changes in the level of earnings of employees, but also by changes in the composition of the labour force such as variations in the proportion of part-time or junior employees and in the occupational distribution.



Average Weekly Earnings of Employees  
(Dollars)

Period	Males			Females		
	Full-time adults			Full-time adults		
	Ordinary time	Total	All males	Ordinary time	Total	All females
November 1989 ..	513.60	558.20	510.20	452.50	464.60	332.20
February 1990 ....	519.40	567.50	517.70	457.70	469.40	347.00
May .....	534.90	579.00	524.40	461.10	471.70	344.30
August .....	545.90	589.20	537.90	466.40	477.10	350.10
November .....	560.80	599.30	548.80	484.20	494.20	363.10
February 1991 ....	571.50	606.80	555.60	492.00	501.40	359.10

For more information, see *Average Weekly Earnings, Australia* (6302.0).

A second measure of average weekly earnings is obtained from the employer based survey of Employee Earnings and Hours which has been conducted in May of each year since 1974, except in 1982 and 1984.

Distribution of Average Weekly Earnings of Employees

Weekly earnings	Males			Females		
	May 1988	May 1989	May 1990	May 1988	May 1989	May 1990
PER CENT						
Under \$60 .....	2.3	2.2	2.0	6.5	7.0	4.8
\$60 and under \$140 .....	4.2	2.5	2.5	12.6	12.3	10.6
\$140 and under \$220 .....	5.0	4.5	3.6	15.2	15.6	9.6
\$220 and under \$300 .....	7.0	5.1	5.4	19.7	14.0	13.9
\$300 and under \$380 .....	20.2	14.3	10.8	18.5	18.8	19.4
\$380 and under \$460 .....	21.0	20.4	19.7	14.2	15.0	19.5
\$460 and under \$540 .....	14.1	15.6	15.9	6.4	8.5	8.7
\$540 and under \$620 .....	9.5	12.7	11.7	4.4	3.9	6.0
\$620 and over .....	16.6	22.7	28.3	2.7	4.8	7.6
<i>Total</i> .....	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
DOLLARS						
Median weekly earnings ...	420.30	465.30	489.90	287.00	306.10	346.40
Mean weekly earnings .....	444.50	490.00	516.90	292.20	306.60	344.90

For details of the standard errors involved and for more information on the survey, see *Earnings and Hours of Employees, Distribution and Composition, Australia* (6306.0).

The survey provides a measure of the size of and movements in the various components of earnings (*i.e.* award and over award pay, overtime pay and payment by measured result) and in earnings by occupation. It also produces median earnings (the level where half of recipients receive less and half receive more) for many different groupings of employees as well as data on average hourly earnings and a distribution of employees by levels of earnings.

A third source of data on average weekly earnings of employed wage and salary earners is an annual household based survey conducted each August in conjunction with the labour force survey. It is also a second source of a distribution of earnings, distributions by variables such as age and industry being available. However, weekly earnings refer to the amount of 'last total pay' (or weekly equivalent) prior to the interview with no adjustment being made for any back pay or prepayment. For more information, see *Weekly Earnings of Employees (Distribution), Australia* (6310.0).

### Hours of work

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 in all jobs, 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<sup>(a)</sup>

May	Proportion who worked the following hours in the specified week							Total
	0	1-29	30-34	35-39	40	41-48	49 and over	
1987 .....	4.8	22.2	7.7	21.2	19.9	13.1	11.0	100.0
1988 .....	5.7	20.8	7.4	23.2	17.4	13.6	11.9	100.0
1989 .....	5.1	20.6	7.9	22.6	17.9	13.8	12.0	100.0
1990 .....	4.8	22.3	7.2	24.0	15.4	13.8	12.5	100.0
1991 .....	5.3	24.2	7.6	20.8	15.6	13.3	13.2	100.0

(a) Employed civilian population, fifteen years of age and over.

### Overtime

Information about overtime hours worked is obtained from a quarterly sample survey of employers. For the purposes of the survey, 'overtime' is time worked in excess of award, standard or agreed hours of work for which payment is received. Excluded is any overtime for which employees would not receive payment, e.g. unpaid overtime worked by managers, normal shiftwork and standard hours paid at penalty rates. Overtime hours represent the number of hours of overtime paid for.

#### Overtime

May	Average weekly overtime hours				Proportion of employees in the survey working overtime	
	Per employee in the survey		Per employee working overtime		Per cent	Standard error
	Hours	Standard error	Hours	Standard error		
1987 .....	0.97	0.07	6.14	0.22	15.85	1.22
1988 .....	0.99	0.06	6.57	0.24	15.02	0.72
1989 .....	1.12	0.06	6.83	0.20	16.45	0.74
1990 .....	1.24	0.09	6.83	0.40	18.10	1.08
1991 .....	0.99	0.12	6.50	0.57	15.19	1.05

For further information to May 1989 see *Overtime, Australia* (6330.0). From August 1989 information is contained in the bulletin *Job Vacancies and Overtime, Australia* (6354.0).

**Labour costs**

A comprehensive Survey of Labour Costs was conducted by the ABS for the first time in respect of 1986-87. The two-part survey of employers measured costs incurred by employers in employing labour and amounts paid for time not worked as well as those paid for time worked.

One part of the survey measured 'wage costs' dissected into payments for time worked and payments for time not worked. Included were details of annual leave, sick leave, long service leave, infrequent bonuses, public holidays and total hours paid for.

The other part of the survey measured the 'major labour costs' to employers of gross wages and salaries, payroll tax, workers' compensation payments, contributions for superannuation and fringe benefits tax. This part of the survey has been conducted annually and results for two years are shown in the following tables.

**Major Labour Costs**

Type of cost	1988-89		1989-90	
	Private	Public	Private	Public
AVERAGE COSTS PER EMPLOYEE (Dollars)				
Earnings .....	20,135	27,712	21,166	27,063
Other labour costs: .....	2,146	4,084	2,308	4,218
Payroll tax .....	667	803	722	865
Superannuation .....	691	2,460	785	2,632
Workers compensation .....	676	746	675	624
Fringe benefits tax .....	112	75	125	96
<i>Major labour costs</i> .....	<i>22,281</i>	<i>29,796</i>	<i>23,475</i>	<i>31,281</i>
AS A PERCENTAGE OF MAJOR LABOUR COSTS				
Earnings .....	90.4	86.3	90.2	86.5
Other labour costs: .....	9.6	13.7	9.8	13.5
Payroll tax .....	3.0	2.7	3.1	2.8
Superannuation .....	3.1	8.2	3.3	8.4
Workers compensation .....	3.0	2.5	2.9	2.0
Fringe benefits tax .....	0.5	0.2	0.5	0.3
<i>Major labour costs</i> .....	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
SUPERANNUATION COSTS (a)				
Particulars	1988-89		1989-90	
	Private	Public	Private	Public
Cost per employee covered (\$) . . . .	1,724	2,688	1,304	2,735
Percentage of employees covered . .	40.1	91.5	60.2	96.3

(a) For further information see *Major Labour Costs, Australia* (6348.0).

Note: Public and private sector superannuation costs are not directly comparable because these sectors meet their superannuation liabilities in different ways.

**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. 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).

### *Annual leave*

Under Federal awards generally, four weeks paid annual leave is granted to employees who have completed twelve months continuous service. Under State awards the Commonwealth standard of four weeks annual leave has generally been adopted. Certain employees in special occupations or where regular shift work is involved *e.g.* police officers, nurses etc. are entitled to annual 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.

Payment in lieu of annual leave or proportionate leave on termination of employment must be made to all employees, whether subject to an award or not, irrespective of the reason for, or manner of, termination of the employment.

### *Sick leave*

The *Industrial Conciliation and Arbitration Act 1972* provides that all full-time employees whether bound by an award or not, shall be eligible to receive annually not less than ten days cumulative sick leave on full pay. The Act was amended from February 1982 to enable employees to take sick leave when ill for more than three consecutive days during annual leave. Most Federal awards provide for two weeks sick leave a year.

### *Long service leave*

The South Australian *Long Service Leave Act 1967* entitles employees in respect of continuous service after 1 January 1972, to thirteen weeks leave for each ten years service. The obligation to grant leave is imposed on all employers in South Australia although the Industrial Commission has the power to exempt an employer where the employees involved have access to benefits not less favourable than those prescribed by the Act.

Entitlement to long service leave also applies to casual employees, provided that the service with the employer is continuous within the meaning of the Long Service Leave Act.

State and local government employees are in general entitled to ninety calendar days leave after ten years service. However, from 1 July 1975, State public servants with over fifteen years continuous service accumulate long service leave at the rate of fifteen days leave per year for each year of service after the fifteenth. Australian government employees are entitled to three months after ten years of service, while those covered by other Federal awards or agreements generally receive at least 13 weeks leave after 15 years of service.

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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 leave*

Maternity leave provisions are inserted in most South Australian awards. The South Australian provisions are based on those granted in March 1979 by the Australian Conciliation and Arbitration Commission for Federal awards. The provisions allow full-time or part-time employees with not less than twelve months continuous service, to take a minimum of six weeks or a maximum of fifty-two weeks maternity leave without pay. Seasonal and casual workers are not eligible.

## Chapter 8

# LAND SETTLEMENT AND DEVELOPMENT

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## 8.1 LAND TENURE

### Identification of land

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.

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 occasionally, the present total being 536. Hundreds are further subdivided into sections which in turn may be divided into allotments or occasionally blocks.

For the purposes of title, land is identified by the county, hundred, and section, and, where appropriate, block or allotment within which it falls. However, with the introduction of this State's computerised Land Ownership and Tenure System (LOTS) this method has been gradually replaced by a system of unique land parcel numbers identified on survey plans lodged in the Land Titles Office.

### 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*. 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.

An amendment to the Real Property Act in 1967 provided for the creation of interests in land by a three-dimensional division of the land into strata units by means of strata plans. Through legislative change the *Strata Titles Act 1988* repealed and replaced this provision. The new Act maintains the strata concept and introduced reforms towards its enhancement. A strata plan creates individual private rights (as well as common entitlements in the property depicted in the plan).

### Land administration

Approximately fifty-nine per cent of the State comprises Crown Tenures controlled by the Department of Lands. The other forty-one per cent is freehold, National Park or Aboriginal reserve.

There is very limited allocation of Crown land to private individuals and this is usually arranged by competitive process including auctions. This land can be allocated to private

individuals either as a separate lease (pastoral or miscellaneous), freehold or added to an existing perpetual lease. Sale of freehold from the Crown is for cash or by Agreement to Purchase.

Pastoral land is held under forty-two year leases which may be extended after fourteen years to a maximum of forty-two years dependent on good land management. Rent is based on fair market rent for the stock levels carried.

Perpetual leases cover approximately 7.5 per cent of the State. No new lands are released in this tenure. In the safe agricultural areas these leases may be converted to freehold.

Land used for public purposes is dedicated as a reserve for a particular purpose and allocated to an agency or group for their control. This includes national parks, forest and Aboriginal reserves.

Aboriginal freehold land has been granted to the Pitjantjatjara and Maralinga peoples. This freehold is inalienable from the Aboriginal people.

### Current tenure

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

Land and Reserves Tenure, 30 June 1991

Particulars	Area	Proportion
	hectares	per cent
Lands sold and dedicated .....	26,067,946	26.48
Lands held under agreement to purchase .....	49,231	0.05
Lands held under lease .....	48,893,125	49.67
Fresh water lakes .....	90,973	0.09
Salt water lakes and lagoons .....	3,107,986	3.16
National parks .....	13,102,133	13.31
Flinders Chase .....	55,685	0.06
Aboriginal reserves .....	778,992	0.79
Unleased vacant lands etc. ....	6,291,707	6.39
<i>Total area of South Australia</i> .....	<i>98,437,778</i>	<i>100.00</i>

In 1901 the area sold, dedicated and held under lease and agreement to purchase, *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.

## 8.2 TOWN AND REGIONAL PLANNING

There are many competing demands on South Australia's resources and as the population grows, so do the demands for housing, community facilities, industry, transport, recreation and conservation. Careful planning is needed to meet the changing needs of the community in a way that encourages development while safeguarding the quality of the State's environment.

In South Australia, development is controlled under the *Planning Act 1982*. The Act is designed to plan for and encourage development throughout the State while at the same time protecting the natural and built environment.

Planning policies, which provide the basis for the control of development, are consolidated in one overall plan known as the Development Plan. Local government authorities and the State Government use this plan, together with a common set of administrative procedures, known as the Development Control Regulations, to consider development applications. These regulations apply throughout the State except for the Adelaide City Council which has its own planning controls.

In most instances local government authorities are responsible for preparing planning policies which define what sort of activities are allowed in different parts of their local area. Any changes to these policies are placed on public display to give people the opportunity to comment and determine the future of their area.

The majority of planning decisions are made by local government authorities, but where proposals affect areas or places of State significance, applications are sent to the South Australian Planning Commission for decision. Generally, a person wishing to undertake a development, including land division, should first approach the relevant local government authorities. If a project is highly controversial or likely to have a major social, economic or environmental significance, an environmental impact statement may be required by the Minister for Environment and Planning. The Planning Act integrates environmental impact assessment with planning controls to ensure that the environmental effects of proposed developments are fully considered. The Governor also has powers to intervene and make final decisions on major development proposals.

The South Australian Planning Commission advises the Minister for Environment and Planning on matters relating to the development of land. It also coordinates comments from various State government agencies on certain development applications and advises relevant local government authorities.

The Minister for Environment and Planning also receives advice from the Advisory Committee on Planning on urban and regional planning, and in particular, on proposed changes to planning policies in the Development Plan. People can also challenge decisions made by councils or the South Australian Planning Commission by applying to an independent body known as the Planning Appeal Tribunal.

Planning also involves protecting the fabric of South Australia's history. Heritage is reflected in buildings and places where activities and historic events took place – city buildings, churches, workmen's cottages, geological monuments and mining towns to name a few. Various landscapes and trees also provide important reminders of the State's natural history.

The State Government has a program to conserve the State's non-Aboriginal heritage. This is achieved primarily through the *South Australian Heritage Act 1978* and is managed by the State Heritage Branch, Department of Environment and Planning. A register of significant heritage properties known as the Register of State Heritage Items has been set up to protect important sites and places. One hundred and forty-nine items were entered on the Register during 1990–91 and a further 129 items were placed on the Interim List of State Heritage Items.

Owners of heritage properties are required to seek approval from their local councils for any changes they wish to make to items on the Register. During 1990–91, 293 applications for development of heritage items were processed.

A State Heritage Fund has been set up to encourage the conservation of registered properties by providing loans and grants to owners of registered properties. The Department provides them with technical advice about various ways of conserving and adapting old buildings. An extensive series of Heritage Conservation Practice Notes has been produced to give practical information on a wide range of heritage related issues.

The conservation and restoration of shipwrecks is also encouraged under the *Historic Shipwrecks Act 1981*.



**Coast protection**

South Australia has a coastline of 4,000 kilometres from the Great Australian Bight to the South East. A Coast Protection Board has been established to protect the coast from erosion, storm damage, pollution and misuse. The Board also has the power to develop and improve the coast for the use and enjoyment of the community.

The coastline has been divided into seven coast protection districts to enable the Board to manage its work program. Management plans have been prepared for most districts and these plans set out the measures needed to carefully protect and develop the coast.

The Board makes grants to councils to assist them with protective works and conservation and rehabilitation projects. The Board also initiates scientific and engineering studies to provide a sound basis for future development and protection.

The sand dunes along Adelaide's coastline have been removed or covered with houses and their natural function of cushioning storms has been reduced. As a result, some of Adelaide's metropolitan beaches are losing sand and the Board operates a beach replenishment program to restore the foreshore. Over \$2,300,000 was spent on this major program in 1990-91 using a dredging and barging operation.

## 8.3 WATER SUPPLY AND SEWERAGE

**Water supply**

The *Waterworks Act 1932* gives the Minister of Water Resources the power to divert and impound water from any source for the purpose of supplying water to any part of the State.

This power is now curtailed by the *Water Resources Act 1990*, which provides for the control and management of water resources.

The Minister is empowered under this Act to construct, maintain and operate the infrastructure necessary to deliver water to consumers and to charge a rate for this service.

The *Water Resources Act 1990* provides for the management of the water resources of the State by the Minister of Water Resources to preserve water quality and to provide for the sharing of available water on a fair basis.

Its provisions include the establishment of a South Australian Water Resources Council, Water Resources Committees, the Water Resources Appeal Tribunal and Water Well Drilling Committee. Ten Regional Water Resources Committees: River Murray, Northern Adelaide Plains, Arid Areas, North Para, Angas-Bremer, Lower South East, Southern Vales, Upper South East, Mallee and Eyre Regions have been established.

The aggregate storage capacity at 30 June 1990 for Adelaide Metropolitan reservoirs was 202,040 megalitres and 32,678 megalitres for country reservoirs.

It should be noted that storage includes service reservoirs and that both natural intake and River Murray water are stored in Northern and Metropolitan reservoirs. The total length of water mains at 30 June 1991 was 23,988 kilometres.

The *Water Conservation Act 1936* provides for the control of small reservoirs, bores, tanks etc. established in certain remote areas as emergency water supplies or to assist local development.

**Water filtration**

Adelaide's first water filtration plant at Hope Valley began supplying filtered water to the Metropolitan Distribution System in November 1977. Since then, plants have been commissioned at Anstey Hill, Barossa and Little Para and Morgan. Construction is underway on a plant at Happy Valley which will be completed in two stages. The first stage came on line in November 1989, the second is expected to be completed by the end of 1991.

## 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 Murray–Darling Basin Agreement (*see* page 154).

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 covers 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.

### Major Reservoirs, 30 June 1991

<i>Reservoir</i>	<i>Capacity</i>	<i>Area at full supply level</i>	<i>Catchment area</i>
	<i>megalitres</i>	<i>hectares</i>	<i>km<sup>2</sup></i>
South Para .....	51,300	444	221
Mount Bold .....	45,900	308	388
Myponga .....	26,800	280	124
Little Para Dam .....	20,800	150	82
Kangaroo Creek .....	19,000	104	290
Millbrook .....	16,500	178	(a)
Happy Valley .....	12,700	188	(a)
Tod River .....	11,300	134	(a)
Bundaleer .....	6,370	80	(a)
Baroota .....	6,120	63	129
Warren .....	4,770	105	119

(a) Offstream reservoir. Water is largely diverted from other catchments.

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.

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. No further reservoirs or major pipelines for metropolitan Adelaide will need to be built this century. When augmentation of the water supply system is necessary in the first part of the next century it is likely that the supply source will be the River Murray, possibly by way of another pipeline plus a new reservoir in the Mount Lofty Ranges to act as a balancing storage for River Murray water.

The present average annual extraction of water by the Engineering and Water Supply Department from the Gulf Drainage Division is about 138,000 megalitres from surface and groundwater; private diversion may take a further 98,000 megalitres.

*River Murray*

The River Murray is the most important source of water supply for South Australia. Under the terms of the *Murray-Darling Basin Act 1983* (see page 160), South Australia is entitled to 1,850,000 megalitres of water annually, subject to the declaration of restriction by the Murray-Darling Basin Commission. Losses by evaporation and seepage account for about 800,000 megalitres per annum. In recent years, irrigation diversions have averaged 480,000 megalitres per annum and town, domestic, industrial and stock supplies have averaged 110,000 megalitres per annum.

Adelaide metropolitan water supplies are supplemented by River Murray water through the Mannum-Adelaide (67 kilometres) and Murray Bridge-Onkaparinga (48 kilometres) pipelines. The Morgan-Whyalla (359 kilometres), Swan Reach-Stockwell (53 kilometres) and Tailem Bend-Keith (143 kilometres) pipelines provide the water supply for extensive country areas or augment local resources in these areas.

*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 last three years.

Adelaide Metropolitan Waterworks<sup>(a)</sup>

<i>Particulars</i>	<i>1988-89 (b)</i>	<i>1989-90</i>	<i>1990-91</i>
Length of mains (kilometres) .....	8,180	8,254	8,329
Number of services .....	365,954	371,663	378,188
		\$'000	
Revenue:			
Rates and other services .....	137,458	146,858	163,153
Expenditure:			
Working expenses and depreciation .....	59,375	68,510	80,367
Interest .....	44,630	49,995	48,619
<i>Total</i> .....	<i>104,005</i>	<i>118,505</i>	<i>128,986</i>
Surplus .....	33,453	28,353	34,167

(a) Includes particulars relating to near country areas supplied by extensions of the Metropolitan distribution system.  
 (b) Because of new financial reporting methods used from 1988-89, the financial results are not comparable with those of previous years.

*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 last three years. The quantity of water pumped from the River Murray through the major pipelines is also shown.

Water Storage and Consumption  
(Megalitres)

<i>Particulars</i>	<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>
Capacity of major storages (at end of year):			
Adelaide metropolitan water supply (a) .....	202,040	202,040	202,040
Country water supply .....	32,678	32,678	32,678
Water consumption:			
Adelaide metropolitan water supply (b) .....	183,000	183,000	187,000
Country water supply (c) .....	82,000	83,000	86,000
Pumped from River Murray:			
Mannum-Adelaide Pipeline .....	38,000	35,900	55,100
Murray Bridge-Onkaparinga Pipeline .....	21,600	22,100	40,000
Morgan-Whyalla Pipeline .....	28,000	22,400	26,700
Other supply systems .....	12,700	13,700	20,800

(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.

*Other water resources*

Underground basins, augmented to a small degree by water pumped from the River Tod, provide most of the water supply on Eyre Peninsula. In contrast, the South East is well endowed with natural spring waters. The Blue Lake provides about 4,000 megalitres annually to Mount Gambier. There are also considerable underground water resources in the region.

Many other areas of the State are dependent on underground supplies, particularly for stock drinking water. The aquifers of the Northern Adelaide Plains provide the major source of water for market gardens and related irrigation, but the demand level has been found to be beyond the permanent capability of the area and usage is subject to controls by a licensing system and metering of wells.

**Sewerage**

Sewerage of cities and towns in South Australia is undertaken by the State Government under the authority of the *Sewerage Act 1929*. The Act is administered by the Engineering and Water Supply Department for the Minister of Water Resources and provides for water borne sanitary sewerage schemes within proclaimed drainage areas. It also empowers the Minister to determine and police the standard of private plumbing connected to the system as part of a total sanitary package. 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* to provide sanitary drainage schemes and since 1962 these authorities have installed common effluent drainage schemes in 84 townships providing more than 40,000 connections throughout the State.

*Metropolitan sewerage*

Sewerage for Adelaide was first authorised by an Act of Parliament in 1878. Construction began in 1879 and by 1881 sewage 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.

## Metropolitan Sewers

<i>Particulars</i>	1988-89	1989-90	1990-91
Adelaide drainage area (km <sup>2</sup> ) .....	700	700	714
Length of sewers (km) .....	5,722	5,818	5,909
Number of connections .....	386,478	391,509	398,611
		\$'000	
Revenue:			
Rates and other services .....	85,617	93,755	111,200
Expenditure:			
Working expenses .....	37,874	47,280	52,347
Interest .....	27,940	30,749	29,652
<i>Total</i> .....	<i>65,814</i>	<i>78,029</i>	<i>81,999</i>
Surplus .....	19,803	15,726	29,201

A large number of common effluent drainage systems have been installed in fringe areas by local government authorities and some 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.

#### Country sewerage

At 30 June 1991 the drainage areas of country sewerage schemes constructed and operated by the Engineering and Water Supply Department totalled 14,864.8 hectares; the length of sewers laid was 974 kilometres and the number of connections totalled 47,974. Sewerage schemes are located at Angaston, Balhannah-Oakbank, Gumeracha, Hahndorf, Lobethal, Mannum, Millicent, Mount Gambier, Murray Bridge, Myponga, Naracoorte, Port Augusta, Port Lincoln, Port Pirie, Stirling, Victor Harbor, and Whyalla.

## 8.4 IRRIGATION AND DRAINAGE

### Irrigation

Since 1978 the administrative authority for irrigation in irrigation areas has been the Engineering and Water Supply Department and the constructing authority was the Minister of Water Resources.

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 1990-91, 509,000 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 and distributed *via* open concrete-lined channels or low pressure piped mains. The Government is currently engaged in a major program of rehabilitating those areas still using channels, which are being replaced by sealed pipe mains and metered connections to each property in the Government irrigation areas.

Landholders on Government controlled areas and in private areas constituted under special Parliamentary Acts, pay an annual rate for irrigation and a charge is made for additional water, either on a measurement basis where meters have been installed, or on an hourly basis where channels are still utilised. 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. Holdings have internal drainage systems leading 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.

Approximately 530 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 330 hectares at Mypolonga used for horticulture.

In 1990-91 there were 17,000 hectares of Government controlled areas (13,000 hectares highland and 4,000 hectares reclaimed land) and 25,900 hectares of non-Government areas irrigated (24,000 hectares highland and 1,900 hectares reclaimed swamp land).

### **Murray-Darling Basin Agreement**

The *River Murray Waters Act Amending Act 1987*, ratified the Murray-Darling Basin Agreement of October 1987. It also amended the previous *River Murray Waters Act 1983* (Cwlth) to unite this Agreement and the existing *River Murray Waters Agreement 1982* (Cwlth) as the agreed basis between the Governments of New South Wales, Victoria, South Australia and the Commonwealth for managing the natural resources of the Murray-Darling Basin, and changed the title of the River Murray Waters Act to the Murray-Darling Basin Act.

The Act provides for constitution of the Murray-Darling Basin Ministerial Council, the Murray-Darling Basin Commission and a Community Advisory Committee as the institutional foundation for joint government and community action.

The new Commission encompasses the regulatory responsibilities previously provided for under the River Murray Waters Agreement as well as responsibilities for land, environmental and water matters not covered in that Agreement.

### **Rural drainage**

With the exception of the reclaimed areas along the lower Murray and certain works associated with metropolitan development, drainage schemes in South Australia are confined to the south-east corner of the State. The area of main benefit has been assessed at 697,430 hectares.

Approximately 1,855 kilometres of drains and 1,226 associated structures, *e.g.* bridges, weirs etc., have been constructed over the past 125 years. These drains vary considerably in size from only a few metres to over 90 metres bottom width.

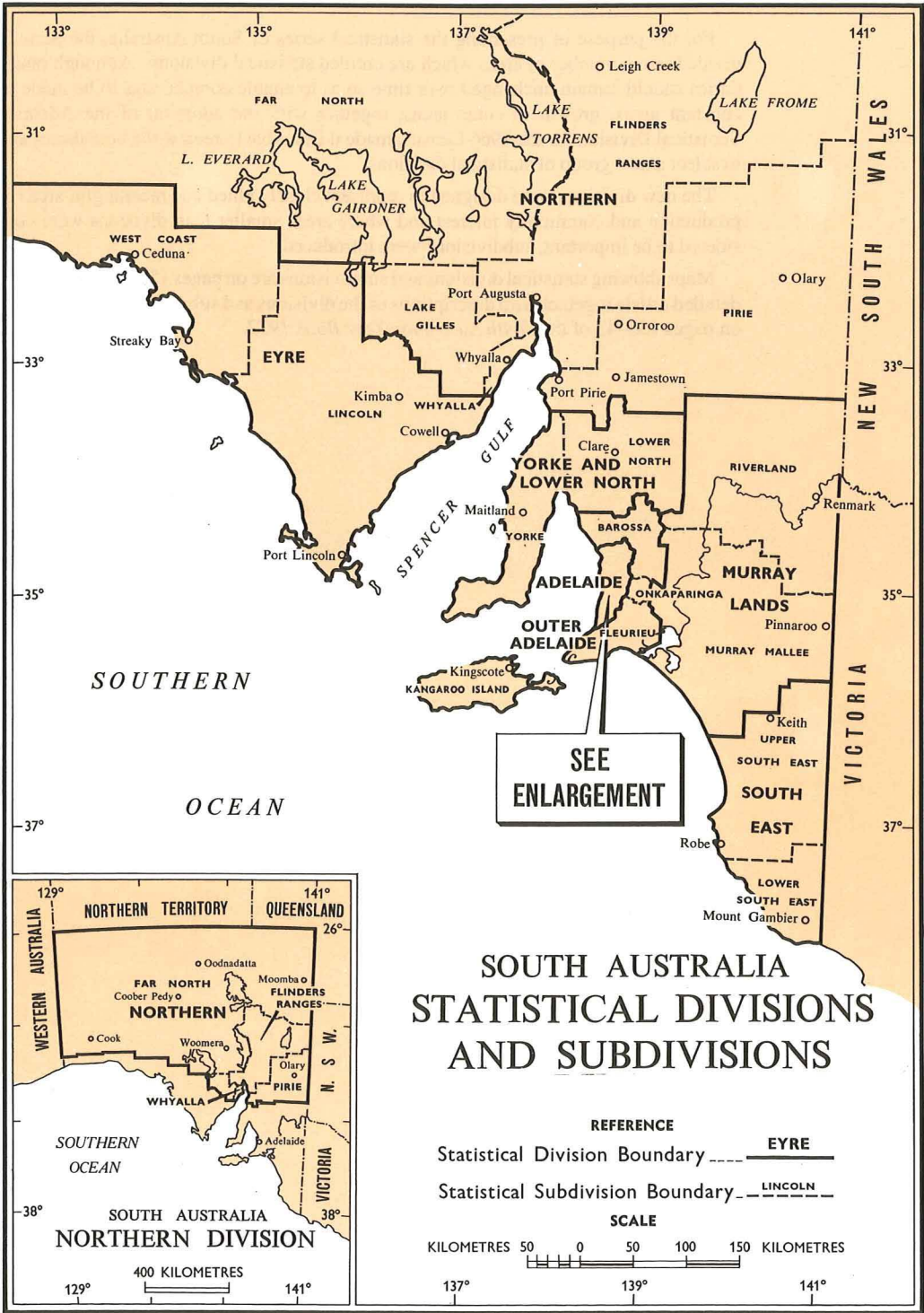
The system is controlled by the South-Eastern Drainage Board under the *South-Eastern Drainage Act 1931*.

## 8.5 STATISTICAL DIVISIONS AND SUBDIVISIONS

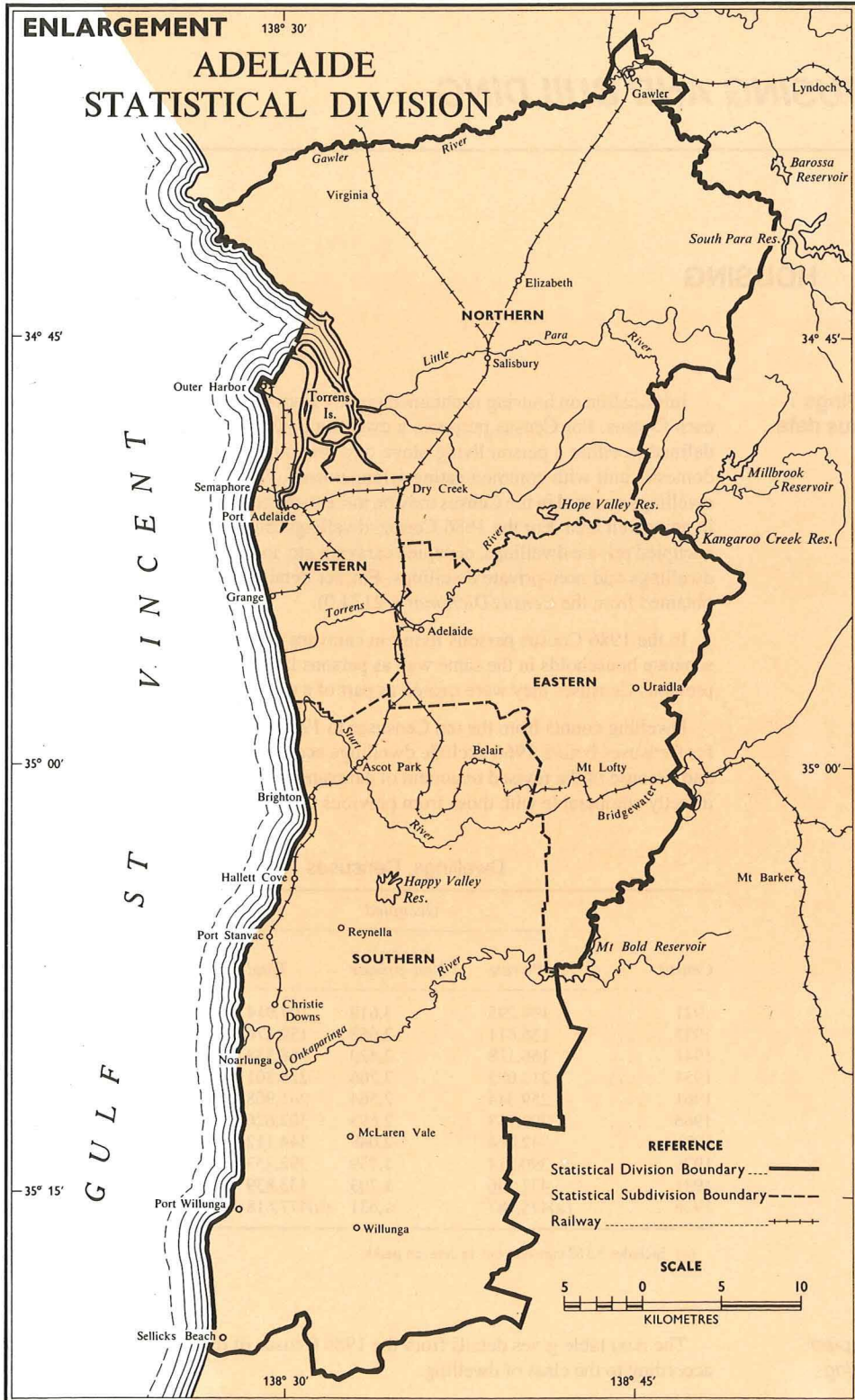
For the purpose of presenting the statistical series of South Australia, the State is divided into a number of areas which are entitled statistical divisions. Although boundaries should remain unchanged over time so as to enable comparisons to be made of constant areas, growth in some areas, together with the adoption of the Adelaide Statistical Division for the 1966 Census, made it desirable to review the boundaries and to select a new group of statistical divisions.

The new 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.

Maps showing statistical divisions and subdivisions are on pages 158 and 159. 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*.







## Chapter 9

# HOUSING AND BUILDING

## 9.1 HOUSING

### Dwellings : Census data

Information on housing is obtained mainly from particulars of dwellings collected at each Census. For Census purposes a dwelling equates to a household. A household is defined as either a person living alone or a group of people living together as a single domestic unit with common eating arrangements. This means that the total number of dwellings counted in the Census may be more than the total number of known structures in any given area. For the 1986 Census dwellings are classified into four basic groups: occupied private dwellings, occupied caravans etc. in caravan parks, unoccupied private dwellings and non-private dwellings. Further details of the Census definitions can be obtained from the *Census Dictionary* (2174.0).

In the 1986 Census persons living in caravans etc. in caravan parks were treated as separate households in the same way as persons living in private dwellings whereas, in previous Censuses they were treated as part of a non-private dwelling.

Dwelling counts from the ten Censuses to 1986 are shown in the next table. Figures for Censuses before 1966 exclude dwellings occupied solely by full-blood Aborigines and because of the revised treatment of caravans in caravan parks, data for 1986 are not directly comparable with those from previous Censuses.

Dwellings, Censuses 1921 to 1986

Census	Occupied			Unoccupied	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 .....	390,514	1,739	392,253	39,768	432,021
1981 .....	432,136	1,703	433,839	42,407	476,246
1986 .....	(a)475,987	1,631	(a)477,618	48,546	(a)526,164

(a) Includes 3,162 caravans etc. in caravan parks.

### Occupied dwellings

The next table gives details from the 1986 Census of dwellings and their occupants, according to the class of dwelling.

Dwellings and Number of Persons by Structure of Dwelling  
Census 1986

Structure	Dwellings		Persons	
	Number	Proportion of total	Number	Proportion of total
Separate house .....	367,423	69.8	1,083,816	80.5
Semi-detached house .....	32,689	6.2	85,342	6.3
Row or terrace house .....	3,122	0.6	5,322	0.4
Other medium density .....	57,738	11.0	95,492	7.1
Flats over three storeys .....	2,106	0.4	3,534	0.3
Caravan etc. in caravan park ...	3,162	0.6	5,881	0.4
Other caravan, houseboat etc. ...	988	0.2	1,977	0.2
Improvised dwelling .....	606	0.1	1,656	0.1
House or flat attached to shop or office .....	2,520	0.5	7,137	0.5
Not stated .....	5,633	1.1	14,689	1.1
<i>Total occupied private dwellings</i> .....	<i>475,987</i>	<i>90.5</i>	<i>1,304,846</i>	<i>97.0</i>
<i>Non-private dwellings</i> .....	<i>1,631</i>	<i>0.3</i>	<i>41,099</i>	<i>3.0</i>
<i>Total occupied dwellings</i> ...	<i>477,618</i>	<i>90.8</i>	<i>1,345,945</i>	<i>100.0</i>
<i>Unoccupied private dwellings</i> ..	<i>48,546</i>	<i>9.2</i>	<i>..</i>	<i>..</i>
<b>Total dwellings and persons ..</b>	<b>526,164</b>	<b>100.0</b>	<b>1,345,945</b>	<b>100.0</b>

The following table shows nature of occupancy for each of the last two Censuses.

Occupied Private Dwellings<sup>(a)</sup> : Nature of Occupancy  
Censuses 1981 and 1986

Nature of occupancy	Dwellings			
	1981		1986	
	Number	Per cent	Number	Per cent
Owned .....	140,051	32.4	179,564	38.0
Being purchased .....	152,957	35.4	147,911	31.3
<i>Total</i> .....	<i>(b)299,258</i>	<i>69.3</i>	<i>327,475</i>	<i>69.3</i>
Rented:				
SA Housing Trust .....	41,487	9.6	52,299	11.1
Other government .....	7,599	1.8	6,874	1.5
Private and not stated .....	61,016	14.1	67,988	14.4
<i>Total</i> .....	<i>110,102</i>	<i>25.5</i>	<i>127,161</i>	<i>26.9</i>
Other (c) .....	22,780	5.3	18,189	3.8
<b>Total</b> .....	<b>432,140</b>	<b>100.0</b>	<b>472,825</b>	<b>100.0</b>

(a) Excluding caravans etc. in caravan parks. (b) Includes owner/purchaser undefined. (c) Includes nature of occupancy not stated.

While the proportion of dwellings owned or being purchased has remained similar over the last three Censuses there have been significant changes in the components of this total. In 1976 and 1981 there were more dwellings being purchased than were owned. In 1986 that situation has reversed.

For rented occupancies there has been a change in the number and proportion of dwellings being rented from different sources. The number and proportion of dwellings rented from the South Australian Housing Trust increased by 26.1 per cent over the 1981 level to reach 52,299 in 1986. This represents 41.1 per cent of all households renting accommodation.

**Occupied Private Dwellings : Number of Bedrooms by  
Structure of Dwelling, Census 1986**

<i>Number of bedrooms per dwelling</i>	<i>Separate house</i>	<i>Semi- detached house</i>	<i>Row or terrace house</i>	<i>Other medium density</i>	<i>Flats over three storeys</i>	<i>Total (including other)</i>
Nil .....	29	4	3	27	—	80
One .....	7,520	2,043	985	13,793	407	26,169
Two .....	72,770	8,665	1,552	35,428	1,455	122,283
Three .....	237,198	20,141	428	6,069	155	267,515
Four or more .....	46,775	1,403	56	297	11	49,453
Not stated .....	3,131	433	98	2,124	78	7,325
<i>Total .....</i>	<i>367,423</i>	<i>32,689</i>	<i>3,122</i>	<i>57,738</i>	<i>2,106</i>	<i>472,825</i>

During the five year period from 1981 to 1986 there was a greater rate of increase in the number of dwellings with 4 or more bedrooms (14.4 per cent) compared with the increase in the number of all dwellings (9.4 per cent).

At each Census since 1966 each householder was asked to state the number of motor vehicles (excluding motor cycles, scooters and tractors) used by members of that household which were garaged or parked at or near that dwelling on Census night. Data were obtained only for occupied private dwellings.

**Occupied Private Dwellings by Number of Motor Vehicles  
Censuses 1981 and 1986**

<i>Number of vehicles</i>	<i>1981</i>		<i>1986 (a)</i>	
	<i>Dwellings</i>	<i>Proportion of total per cent</i>	<i>Dwellings</i>	<i>Proportion of total per cent</i>
Nil .....	55,431	12.8	56,315	11.8
One .....	196,862	45.6	202,001	42.4
Two .....	125,806	29.1	151,848	31.9
Three or more vehicles .....	44,754	10.4	54,150	11.4
Not stated .....	9,283	2.1	11,673	2.5
<i>Total .....</i>	<i>432,136</i>	<i>100.0</i>	<i>475,987</i>	<i>100.0</i>

(a) Includes caravans etc. in caravan parks.

The trends apparent from these data are that fewer households lack a motor vehicle, and that multiple vehicle ownership is increasing.

## 9.2 BUILDING

### Building control

The *Building Act 1971* gives local government authorities power to control building operations within their municipality or district. Persons wishing to erect or alter buildings on land within an area to which the *Building Act* applies are required to submit to the local government authority technical details, plans, drawings and specifications of the

work proposed and to receive written approval before commencing operations. Authorities are concerned with such things as the materials used, the height of ceilings and the provision of ventilation and drainage. Following approval, 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 the requirements of the regulations are being complied with.

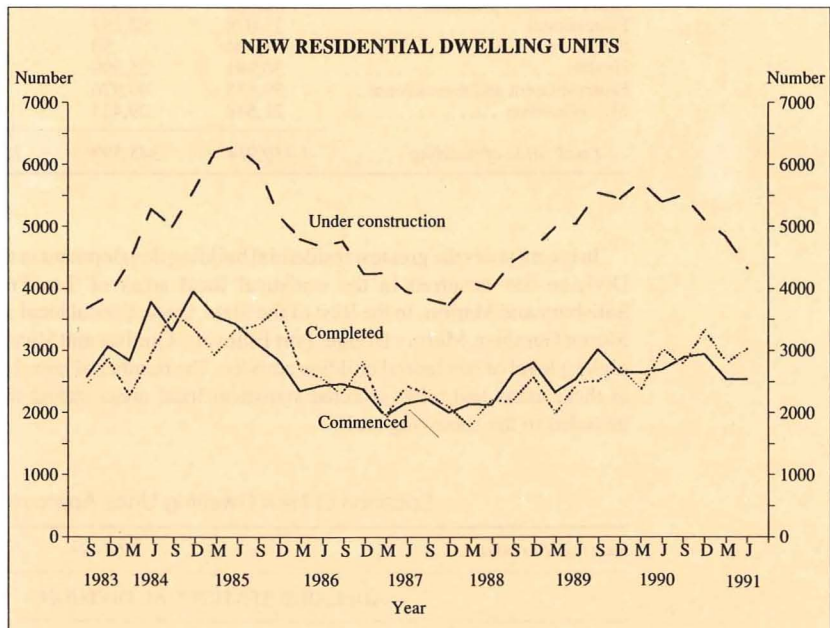
Builders are licensed and regulated by the Commercial Tribunal under the *Builders Licensing Act 1986*.

## Building statistics

These statistics relate to building activity which includes construction of new buildings and alterations and additions to existing buildings. Construction activity not defined as building (*e.g.* construction of roads, bridges, railways, earthworks etc.) is excluded.

In relation to work carried out on existing buildings, the statistics include details of non-structural renovation and refurbishment work and the installation of integral building fixtures for which building approval was obtained. The statistics were compiled from information supplied by local and other government authorities, builders and other individuals and organisations engaged in building activity.

The *ownership of a building* is classified as either *Public Sector or Private Sector* according to the sector of the intended owner of the completed building as evident at the time of approval.



## Building approvals

Statistics of building work approved were compiled from: (a) permits issued by local or other government authorities in areas subject to building control by those authorities; and (b) contracts let or day labour work authorised by Commonwealth, State, semi-government and local government authorities. Major building activity which takes place in areas not subject to the normal administrative approval processes (*e.g.* buildings on remote mine sites) is also included.

From July 1990, the statistics cover all approved new residential building jobs valued at \$10,000 or more, previously \$5,000; approved alterations and additions to residential buildings valued at \$10,000 or more (unchanged); all approved non-residential building jobs valued at \$50,000 or more, previously \$30,000. These changes mainly affect non-residential building data. In particular, care should be taken in interpreting data for specific classes of non-residential building.

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.

### Building Approvals (\$'000)

Type of building	1989-90		1990-91	
	Private	Public	Private	Public
New houses .....	497,207	24,980	583,779	16,024
New other residential buildings .	161,659	48,746	119,170	36,093
Alterations and additions to residential buildings .....	107,184	2,629	118,511	668
Hotels etc. ....	16,280	511	13,423	2,503
Shops .....	277,180	1,444	162,698	2,881
Factories .....	56,813	27,281	50,055	10,273
Offices .....	80,088	26,188	56,957	27,414
Other business premises .....	90,636	26,812	49,217	38,802
Educational .....	21,078	82,157	17,707	56,481
Religious .....	4,404	50	4,439	-
Health .....	36,981	25,399	24,281	7,626
Entertainment and recreational ..	39,855	49,976	18,222	10,619
Miscellaneous .....	21,548	29,425	10,547	26,430
<i>Total value of building .....</i>	<i>1,410,914</i>	<i>345,599</i>	<i>1,229,005</i>	<i>235,813</i>

In recent years the greatest residential building development in the Adelaide Statistical Division has occurred in the statistical local areas of Tea Tree Gully, Noarlunga, Salisbury and Marion. In the Rest of the State, the statistical local areas of Mount Barker, Mount Gambier, Murray Bridge, Port Elliot and Goolwa and Victor Harbor provided the highest level of residential building activity. The number of new dwelling units approved in these areas and other selected statistical local areas during the last three years are included in the following table.

### Location of New Dwelling Units Approved

Statistical local area	1988-89	1989-90	1990-91
ADELAIDE STATISTICAL DIVISION			
Adelaide (C) .....	122	279	149
Burnside (C) .....	210	240	206
Campbelltown (C) .....	352	331	329
Enfield(C) Pt A & Pt B .....	190	473	287
Gawler (M) .....	331	312	342
Happy Valley (C) .....	554	468	439
Hindmarsh (M) .....	100	115	124
Marion (C) .....	922	928	566
Mitcham (C) .....	238	191	212
Munno Para (C) .....	415	364	562

## Location of New Dwelling Units Approved (continued)

Statistical local area	1988-89	1989-90	1990-91
ADELAIDE STATISTICAL DIVISION (continued)			
Noarlunga (C) .....	1,001	1,345	1,676
Port Adelaide (C) .....	245	342	344
Salisbury (C) .....	1,008	1,181	926
Stirling (DC) .....	117	96	74
Tea Tree Gully (C) .....	1,340	1,240	1,107
Unley (C) .....	81	113	112
West Torrens (C) .....	194	193	176
Willunga (DC) .....	247	249	265
Woodville (C) .....	374	347	266
Other .....	569	607	674
<i>Total</i> .....	<i>8,610</i>	<i>9,414</i>	<i>8,836</i>
REST OF STATE			
Mallala (DC) .....	96	83	139
Mount Barker (DC) .....	218	242	286
Mount Gambier (C) .....	99	104	170
Murray Bridge (DC) .....	133	101	108
Northern Yorke Peninsula (DC) .....	46	37	49
Port Augusta (C) .....	62	57	47
Port Elliot and Goolwa (DC) .....	113	130	145
Port Lincoln (C) .....	64	39	39
Port Pirie (C) .....	43	22	41
Renmark (C) .....	85	55	51
Roxby Downs (M) .....	64	37	-
Strathalbyn (DC) .....	109	79	92
Victor Harbor (DC) .....	188	100	117
Other .....	1,232	1,146	1,286
<i>Total</i> .....	<i>2,552</i>	<i>2,232</i>	<i>2,570</i>
<b>South Australia</b> .....	<b>11,162</b>	<b>11,646</b>	<b>11,406</b>

(C) Municipality with city status      (DC) District Council      (M) Municipality

### Building Activity Survey

Building activity data is collected quarterly from builders and other individuals and organisations engaged in building activity. It consists of two components:

- (a) a sample survey of private sector house building activity involving new house construction or alterations and additions valued at \$10,000 or more to houses; and
- (b) a complete enumeration of jobs involving construction of new residential buildings other than private sector houses, all alterations and additions to residential buildings (other than private sector houses) with an approval value of \$10,000 or more, and all non-residential building jobs with an approval value of \$50,000 or more.

From the data collected in the survey, a considerable amount of information about the building industry in South Australia can be derived. This includes statistics about building work commenced, work done and completed in each period as outlined in the following paragraphs.

All values shown exclude the value of land and unless otherwise stated represent the anticipated or actual value of buildings upon completion.

A building is regarded as having been commenced when expenditure on building work is first reported. Commencement data for the last three years are shown in the following table.

Buildings Commenced<sup>(a)</sup>

<i>Type of building</i>	1987-88	1988-89	1989-90
New houses:			
Number (b) .....	6,390	7,580	7,170
Value (\$m) .....	378.3	504.4	499.3
New other residential buildings:			
Number of dwelling units .....	2,055	2,655	3,763
Value (\$m) .....	94.6	138.0	218.7
		\$ million	
Alterations and additions to residential buildings .	92.2	103.7	111.7
Hotels etc. ....	47.5	71.3	14.4
Shops .....	99.4	96.3	314.0
Factories .....	101.6	92.1	68.9
Offices .....	197.1	353.5	120.7
Other business premises .....	87.8	129.2	122.9
Educational .....	76.3	52.9	88.6
Religious .....	3.9	3.7	4.4
Health .....	35.0	77.5	64.6
Entertainment and recreational .....	41.0	54.9	81.4
Miscellaneous .....	29.3	32.7	54.5
<i>Total non-residential buildings</i> .....	<i>718.8</i>	<i>964.1</i>	<i>934.4</i>
<b>Total building</b> .....	<b>1,283.9</b>	<b>1,710.1</b>	<b>1,764.2</b>

(a) Anticipated completion value.

(b) Rounded to the nearest ten units.

Another measure of building activity is that of value of work done, *i.e.* of work actually carried out on buildings during the period. Details of value of work done for the last three years are given in the following table.

Buildings : Value of Work Done  
(\$ million)

<i>Type of building</i>	1987-88	1988-89	1989-90
New houses .....	381.1	469.2	518.7
New other residential buildings .....	86.7	127.7	205.9
Alterations and additions to residential buildings .	88.2	104.1	116.6
Hotels etc. ....	64.2	50.3	56.2
Shops .....	107.3	97.1	186.6
Factories .....	77.8	92.9	92.1
Offices .....	288.7	345.2	260.5
Other business premises .....	78.8	119.1	130.9
Educational .....	62.7	65.4	78.7
Religious .....	4.4	3.9	4.6
Health .....	60.4	57.8	70.1
Entertainment and recreational .....	40.5	38.7	72.3
Miscellaneous .....	26.3	31.7	37.2
<i>Total non-residential buildings</i> .....	<i>811.2</i>	<i>902.2</i>	<i>989.2</i>
<b>Total building</b> .....	<b>1,367.1</b>	<b>1,603.4</b>	<b>1,830.4</b>

Details of buildings completed in the last three years are given in the next table.



Buildings Completed			
Type of building	1987-88	1988-89	1989-90
New houses:			
Number (a) .....	6,300	6,710	7,400
Value (\$m) .....	375.7	425.2	513.5
New other residential buildings:			
Number .....	2,033	2,448	3,158
Value (\$m) .....	88.3	111.8	184.1
		\$ million	
Alterations and additions to residential buildings .	81.5	96.9	107.2
Hotels etc. ....	13.5	89.5	61.9
Shops .....	85.9	156.8	82.0
Factories .....	57.3	80.5	78.1
Offices .....	279.3	363.8	305.7
Other business premises .....	92.2	104.3	128.8
Educational .....	65.3	52.3	87.0
Religious .....	5.6	4.1	3.6
Health .....	48.1	80.5	53.4
Entertainment and recreational .....	47.5	34.0	66.2
Miscellaneous .....	48.8	29.3	25.9
<b>Total non-residential buildings</b> .....	<b>743.4</b>	<b>995.2</b>	<b>892.7</b>
<b>Total building</b> .....	<b>1,288.9</b>	<b>1,629.1</b>	<b>1,697.4</b>

(a) Rounded to the nearest ten units.

### The South Australian Housing Trust

The South Australian Housing Trust was established under the *South Australian Housing Trust Act 1936* as the public housing authority. Its charter is to provide housing and related services for those in need, and to do so in ways which contribute, as far as possible, to the social well-being and economic development of the State.

The Trust's sources of funds are loans and grants from the Commonwealth and South Australian Governments, rents and other payments by tenants, repayments under mortgage and the proceeds from the sale of its houses and other assets.

At 30 June 1991 the Trust had 62,675 dwellings in its rental stock. During 1990-91, 1,550 dwellings were added to the stock of which 1,450 were built by the Trust and 100 were existing dwellings purchased on the open market. During 1990-91, 14,133 applications for rental housing were received while 8,053 households were allocated a dwelling. At the end of June 1991 there were 43,520 households on the waiting list.

At 30 June 1991, 70.5 per cent of the Trust's tenants were paying reduced rent because of financial hardship or social disadvantage. As well as reducing rents to the disadvantaged among its own tenants, assistance is provided to other disadvantaged members of the community in the following ways;

- The Mortgage Relief Scheme, begun in 1982, provides assistance in weekly amounts in the form of a secured interest-free loan and is paid directly to the lender;
- The Rent Relief Scheme, commenced in 1982, with funds made available by both the Commonwealth and South Australian Governments, provides assistance to households on low incomes who face genuine hardship in meeting private rental commitments.
- The Emergency Housing Office provides information, bond assistance, advocacy and counselling for people in a housing crisis. The Office also has a pool of emergency dwellings for short-term lease.

- The *Housing Improvement Act 1940* establishes minimum standards by which a dwelling may be considered suitable for human habitation. The Act vests in the Trust, the power to control the rent of any house that it has declared to be sub-standard. During 1990–91, 320 notices of intention were issued for sub-standard housing. Rents were fixed or revised in respect of 215 houses and 336 houses were released from control of the Act as a result of repairs and renovations.

As well as its public housing role the Trust provides a substantial contribution to the Government's program for the establishment of new industry and the expansion of existing industry within South Australia. This support takes the form of developing and making available industrial land for sale and lease and the provision of resources for the establishment of factory premises through the Trust's Factory Construction Scheme, in collaboration with the Department of Industry, Trade and Technology.

#### Further references

Additional information may be found in the following ABS publications:

- 8731.0 *Building Approvals, Australia*
- 8731.4 *Building Approvals, South Australia*
- 8741.4 *Dwelling Unit Commencements Reported by Approving Authorities, South Australia*
- 8750.0 *Building Activity: Dwelling Unit Commencements, Australia, Preliminary*
- 8752.0 *Building Activity, Australia*
- 8752.4 *Building Activity, South Australia*

### 9.3 HOUSING FINANCE

Information on secured finance commitments to individuals for the construction or purchase of dwellings for owner occupation is provided by major lenders. These lenders include banks, permanent building societies, credit unions, insurance companies, finance companies, superannuation funds and general government enterprises.

In the following tables, values shown for 'construction of dwellings' represent commitments made to individuals to fund, by way of progress payments, the erection of dwellings which they will occupy. Values for 'purchase of newly erected dwellings' represent the purchase of dwellings which have been completed within a period of twelve months preceding lodgment of the loan application where the applicant is, or will be, the first occupant. 'Purchase of established dwellings' refers to those completed for a period greater than twelve months preceding the lodgment of the loan application or, if purchased within twelve months, the applicant is not the original occupant.

Number of Dwelling Units for which Loans were Approved to Individuals by Type of Lender

<i>Period</i>	<i>All banks</i>	<i>Permanent building societies</i>	<i>Other lenders</i>	<i>Total</i>
1988–89 .....	22,574	6,246	1,120	29,940
1989–90 .....	17,984	2,851	4,815	25,650
1990–91 .....	18,213	3,254	7,227	28,694

Value of Lending Commitments to Individuals for Construction or  
Purchase of Dwellings by Type of Lender<sup>(a)</sup>  
(\$ million)

<i>Period</i>	<i>All banks</i>	<i>Permanent building societies</i>	<i>Other lenders</i>	<i>Total</i>
1988-89 .....	1,232.8	339.2	50.6	1,622.8
1989-90 .....	1,051.0	166.5	266.2	1,483.8
1990-91 .....	1,128.0	214.0	448.0	1,790.0

(a) Includes alterations and additions.

Lending Commitments to Individuals for Construction or  
Purchase of Dwellings, All Lenders<sup>(a)</sup>

<i>Period</i>	<i>For construction of dwellings</i>		<i>For purchase of newly erected dwellings</i>		<i>For purchase of established dwellings</i>	
	<i>No.</i>	<i>\$m</i>	<i>No.</i>	<i>\$m</i>	<i>No.</i>	<i>\$m</i>
1988-89 ....	6,237	299.9	839	41.4	22,864	1,229.5
1989-90 ....	5,253	227.7	865	41.4	19,532	1,118.7
1990-91 ....	6,680	385.1	2,759	173.8	19,255	1,172.2

(a) Excludes alterations and additions.

### Home Start Loan Scheme

The State Government introduced the Home Start Loan Scheme in 1989 designed to provide housing finance to first home buyers. It is aimed primarily at low to moderate income earners and the main features of the scheme are the low deposit and affordable mortgage payments. Refinance loans are also available to assist people having difficulty meeting their mortgage repayments through a change in their level of income or family circumstances.

Payments are set at 25 per cent of the initial household income and increase every year in line with the increases in the Consumer Price Index. In the early years of the loan, mortgage payments do not cover all the interest due; unpaid interest is added to the outstanding loan balance and paid later as the borrowers income and payments increase.

The maximum amount of the loan depends on the borrowers assessed household income.

The maximum term of the loan is initially 27 years but this may be altered later to meet the changing needs of the borrower.

## Chapter 10

# AGRICULTURE, FORESTRY AND FISHERIES

## 10.1 RURAL INDUSTRIES

The principal source of statistics relating to the rural sector is the Integrated Agricultural Commodity Census, which is conducted throughout Australia at 31 March each year. Data are collected from those establishments engaged in significant agricultural activity, regardless of the main activity of the establishment. Where harvesting of some crops (mainly fruit and vegetables) has not been completed by 31 March, growers are asked to estimate production or provide details at a later date *via* supplementary collections (*e.g.* main crop potatoes and grapes). For the purpose of this Census, an establishment generally comprises the operations of a legal entity from a single physical location or from more than one location, provided that these locations are within the same local government area.

Those establishments which make only a small contribution to overall agricultural production are excluded from the Census. The Census includes all establishments which have an estimated value of agricultural operations (EVAO) of \$20,000 or more. For the 1989-90 season the Agricultural Census included 14,636 establishments operating on 57,479,639 hectares of land or 58 per cent of the total area of the State.

Agricultural Establishments: Industry and Estimated Value of Agricultural Operations, 1989-90

Industry of establishment Description	Estimated value of agricultural operations (\$'000)								Total
	Less than 20	20-39	40-59	60-79	80-99	100-149	150-199	200 and over	
Poultry for meat . . .	-	2	-	3	3	16	7	28	59
Poultry for eggs . . .	2	1	2	2	-	7	6	33	53
Grapes . . . . .	27	171	242	212	175	207	82	93	1,209
Orchard fruit . . . . .	99	193	204	140	99	151	82	151	1,119
Potatoes . . . . .	1	6	8	11	2	14	11	78	131
Vegetables . . . . .	50	87	54	43	21	30	18	139	442
Cereals . . . . .	28	81	104	95	102	265	241	755	1,671
Sheep-cereal grain . .	26	214	366	455	488	1,110	708	1,170	4,537
Meat cattle-cereal grain . . . . .	5	11	8	7	6	16	10	6	69
Sheep-meat cattle . .	28	88	86	74	83	143	105	219	826
Sheep . . . . .	105	281	275	265	233	421	287	487	2,354
Meat cattle . . . . .	93	109	49	28	20	28	21	70	418
Milk cattle . . . . .	16	89	114	137	124	238	97	91	906
Pigs . . . . .	6	23	26	14	19	39	33	74	234
Nurseries . . . . .	14	16	32	4	12	9	12	19	118
Agriculture n.e.c. . .	46	83	50	29	14	23	5	35	285
<i>Total agriculture . .</i>	<i>546</i>	<i>1,455</i>	<i>1,620</i>	<i>1,519</i>	<i>1,401</i>	<i>2,717</i>	<i>1,725</i>	<i>3,448</i>	<i>14,431</i>
Other industries . . . .	95	26	20	21	12	11	5	15	205
<b>Total all industries</b>	<b>641</b>	<b>1,481</b>	<b>1,640</b>	<b>1,540</b>	<b>1,413</b>	<b>2,728</b>	<b>1,730</b>	<b>3,463</b>	<b>14,636</b>

Rural Establishments : Statistical Divisions

Statistical Division	Establishments		Area of establishments	
	1988-89	1989-90	1988-89	1989-90
	number	number	'000 ha	'000 ha
Adelaide . . . . .	747	766	40	38
Outer Adelaide . . . . .	2,529	2,577	775	760
Yorke and Lower North . . . . .	2,190	2,174	1,667	1,669
Murray Lands . . . . .	3,552	3,593	3,650	3,620
South East . . . . .	2,442	2,446	1,713	1,711
Eyre . . . . .	1,731	1,713	5,234	4,933
Northern . . . . .	1,374	1,367	44,950	44,749
<i>Total</i> . . . . .	<i>14,565</i>	<i>14,636</i>	<i>58,029</i>	<i>57,480</i>

*Agricultural Finance Survey*

Statistics on the financial performance of the rural sector are obtained from the Agricultural Finance Survey, which has been conducted periodically by the ABS since 1976-77. This survey, which provides estimates of turnover, expenditure, cash operating surplus, capital expenditure and indebtedness has been conducted on an annual basis from 1986-87. Detailed definitions and explanatory notes relating to this Survey are published in *Agricultural Industries, Financial Statistics, Australia, 1988-89* (7507.0).

Financial Estimates of Agricultural Enterprises, 1988-89

Items	\$ million
Sale of crops . . . . .	725.5
Sales of livestock . . . . .	381.4
Sales of livestock products . . . . .	632.8
Turnover . . . . .	1,829.2
Purchases and selected expenses . . . . .	850.0
Value added . . . . .	982.5
Adjusted value added . . . . .	875.6
Gross operating surplus . . . . .	706.4
Cash operating surplus . . . . .	594.0
Total net capital expenditure . . . . .	163.5
Gross indebtedness . . . . .	1,173.4

**Land utilisation**

The pattern of land use attributed to agricultural establishments included in the annual Integrated Agricultural Commodity Census indicates that vast tracts of land have no attributed land use. These include areas of saltbush, scrub, native vegetation, non-arable land and land not utilised during the particular census period.

Crops were sown to 3.0 million hectares of land during the 1989-90 season, a 3 per cent increase from the previous year. Climatic conditions, particularly the relatively low winter rainfall and the hot dry summer, favour cereal growing: one advantage being the low incidence of stem rust, a serious disease in the moist areas of the Australian wheat belt.

Sown pastures and grasses accounted for 3.8 million hectares of land in 1989-90. The pattern of land use in South Australia over the past three years is shown in the following table.

Land Utilisation of Establishments with Agricultural Activity  
Year Ended 31 March

<i>Particulars</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
Total establishments . . . . .	14,768	14,565	14,636
Number of establishments:			
Growing crops . . . . .	11,765	11,597	11,558
With sown pastures and grasses . . . . .	7,921	7,836	8,052
Total area of establishments (hectares) . .	59,958,331	58,028,643	57,479,639
Total area (hectares):			
Used for crops (a)(b) . . . . .	2,989,961	2,960,917	3,042,304
Under sown pastures and grasses . . . . .	3,700,053	3,715,205	3,786,392

(a) Excludes pastures harvested for hay and seed which have been included in 'area under sown pastures and grasses'.

(b) Areas of land used for sowing more than one crop in a season have been counted for each crop.

The following table shows the area of all irrigated culture in South Australia for selected seasons from 1978-79 to 1989-90. Of the areas shown below, about 47 per cent of orchards and about 31 per cent of vineyards are in the River Murray irrigation areas.

Area Under Irrigation<sup>(a)</sup>  
(Hectares)

<i>Season</i>	<i>Vegetables (including potatoes)</i>	<i>Fruit</i>	<i>Vineyards</i>	<i>Other crops</i>	<i>Pastures</i>	<i>Total</i>
1978-79 . . . . .	6,409	12,338	18,892	4,571	36,176	78,386
1980-81 . . . . .	5,676	12,627	20,253	4,333	36,585	79,474
1983-84 . . . . .	6,413	12,807	16,512	4,644	46,578	86,953
1986-87 . . . . .	6,244	11,865	16,418	5,666	51,573	91,765
1989-90 . . . . .	7,395	13,410	18,151	6,760	53,191	98,907

(a) Irrigation details collected on an irregular basis.

In 1989-90 there were 3,840 establishments irrigated. 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 8.3.

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 phosphorus, 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, 1989-90

Type of crop	Area fertilised '000 ha	Fertiliser used			Per hectare kg
		Super- phosphate	Other	Total	
		tonnes	tonnes	tonnes	
Pasture .....	1,927	201,734	21,237	222,971	116
Wheat .....	1,433	74,651	61,566	136,217	95
All other crops .....	1,058	70,001	67,257	137,258	130
<i>Total</i> .....	<i>4,418</i>	<i>346,387</i>	<i>150,060</i>	<i>496,446</i>	<i>112</i>

**Wheat**

The area sown to wheat for grain in South Australia during the 1989-90 season was 1,556,643 hectares which yielded 2,607,195 tonnes. This represented 17.3 per cent and 18.3 per cent of the Australian total respectively.

In the past twenty years a feature of the industry has been that average yields have fluctuated around a higher level mainly because of improved farming practices, including the adoption of nitrogen-building legumes in the rotation. The average yield for the 1989-90 season was 1.67 tonnes per hectare, up from 0.90 tonnes per hectare in 1988-89.

*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 Statistical Divisions. These districts accounted for about 97 per cent of the area sown in 1989-90.

Wheat Grown by Statistical Division

Use and geographical area	Area		Production	
	1988-89	1989-90	1988-89	1989-90
	'000 ha	'000 ha	'000 tonnes	'000 tonnes
For grain:				
Statistical Division;				
Adelaide .....	1	1	3	3
Outer Adelaide .....	36	35	63	82
Yorke and Lower North .....	256	259	384	590
Murray Lands .....	244	217	254	244
South East .....	21	24	43	66
Eyre .....	783	836	383	1,242
Northern .....	179	184	231	380
<i>Total for grain</i> .....	<i>1,520</i>	<i>1,557</i>	<i>1,361</i>	<i>2,607</i>
For hay .....	13	11	22	34
Fed off or cut for green feed or silage .....	3	1	..	..
<b>Total all wheat</b> .....	<b>1,536</b>	<b>1,569</b>	<b>..</b>	<b>..</b>

*Varieties*

In each of the Australian States a committee examines and recommends the wheat varieties which should be grown by farmers. The South Australian Advisory Committee on Wheat Quality was established in 1962. Dividing the State into seven zones, recommendations of wheat varieties are decided each year by bringing together relevant

available information on breeding, testing, commercial production, handling and end use of wheat and more particularly of specific varieties. Protein content and potential yield are key factors in these recommendations.

The South Australian Department of Agriculture 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 better varieties are grown by farmers.

### Marketing

#### Australian Wheat Board

The Australian Wheat Board was formed on 21 September 1939 and given powers to run the domestic and export marketing of Australia's wheat crop.

Under the *Wheat Marketing Act 1989* (Cwlth), all sales of wheat within Australia were deregulated from 1 July 1989. The Australian Wheat Board has retained full control of wheat sold for export from Australia. The Board will continue to buy on the domestic market along with other buyers who can now engage in such operations. The new legislation also permits the Board to trade in other grains and legumes on both the domestic and export markets.

#### Deliveries to the Australian Wheat Board ('000 tonnes)

Season	South Australia	Australia
1980-81	1,533	10,059
1981-82	1,581	15,545
1982-83	588	7,887
1983-84	2,715	21,067
1984-85	1,921	17,546
1985-86	1,773	15,099
1986-87	2,377	15,310
1987-88	1,823	10,740
1988-89	1,318	12,953
1989-90	2,701	12,969

Source: Australian Wheat Board.

#### Bulk Handling

South Australian Co-operative Bulk Handling Ltd is the sole bulk grain handling authority in this State, and is owned, financed and controlled by the growers.

#### Bulk Handling Capacity, 30 September 1990

Division	Number of sites	Total permanent storage  tonnes
Ardrossan	1	283,400
Port Adelaide	54	1,308,200
Port Giles	1	239,100
Port Lincoln	25	1,107,300
Port Pirie	14	527,500
Thevenard	11	483,600
Walleroo	10	429,600
<b>Total</b>	<b>116</b>	<b>4,378,700</b>

Source: South Australian Co-operative Bulk Handling Ltd.



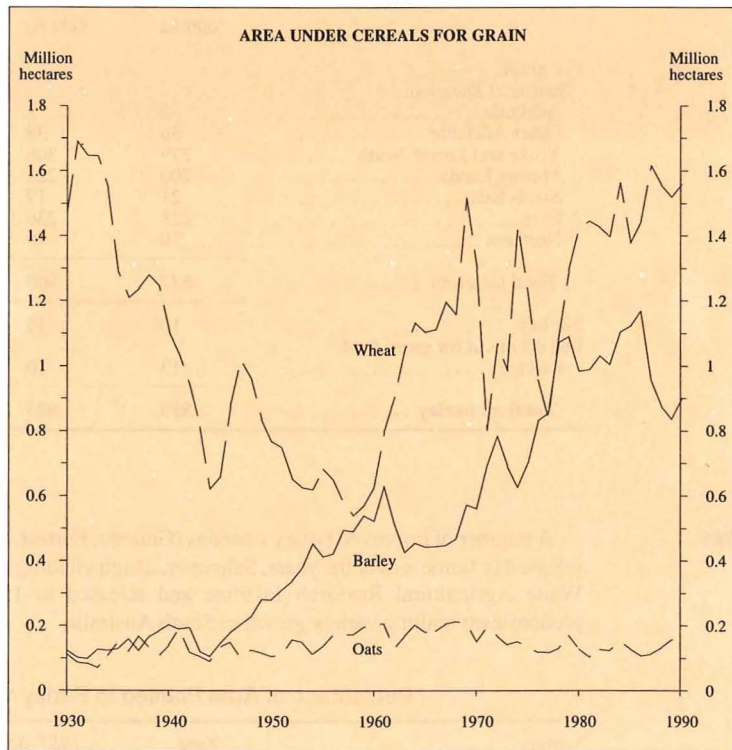
Prices

The following table shows the trend in export and domestic prices of Australian wheat for the years 1985-86 to 1989-90. The export prices shown in the table are the basic selling prices for ASW bulk wheat f.o.b. terminal ports. The average quoted price for export has been in US Dollars from 12 December 1983 but are shown in \$A values.

Export and Domestic Prices of Australian Wheat (Dollars)

Year	Export price per tonne (a)	Home price per tonne
1985-86 .....	187.19	213.89
1986-87 .....	161.78	188.92
1987-88 .....	174.75	193.46
1988-89 .....	217.45	221.07
1989-90 .....	202.32	202.32

(a) Based on the average daily quoted price for each year ended September 30.  
 Source: Australian Wheat Board.



Barley

Production

Barley is grown in all States of Australia, with the major producing area being South Australia. It is grown principally as a grain crop, although in some areas it is used as a fodder crop for grazing with grain being subsequently harvested if conditions are suitable. During the 1989-90 season 923,170 hectares of land were sown to barley in South Australia, 38.1 per cent of the Australian total. Barley is used for stockfeed purposes and, on a small scale, for human consumption. A relatively large quantity is used to produce malt.

The area sown to barley for grain in South Australia during the 1989-90 season was 899,501 hectares which yielded a production of 1,724,472 tonnes. This represented 38.9 per cent and 42.6 per cent of the Australian total respectively. The Yorke and Lower North Statistical Division, which includes the Yorke Peninsula, accounted for 756,000 tonnes or 43.8 per cent of the State's production during this period.

The ideal malting barley has a dry, plump, undamaged grain with a low protein content. Production of malting barley requires an area of dependable rainfall and a ripening period somewhat prolonged by cool conditions without high temperatures and drying winds.

Yorke Peninsula is the major barley producing district in South Australia, accounting for approximately 35 per cent of the total South Australian crop. This area generally has an ideal climate for barley production as the moisture laden breezes off the Gulfs retard ripening.

#### Barley Grown by Statistical Division

Use and geographical area	Area		Production	
	1988-89	1989-90	1988-89	1989-90
	'000 ha	'000 ha	'000 tonnes	'000 tonnes
For grain:				
Statistical Division;				
Adelaide .....	2	2	3	4
Outer Adelaide .....	36	38	61	91
Yorke and Lower North .....	279	306	443	756
Murray Lands .....	200	222	233	288
South East .....	21	19	31	34
Eyre .....	228	236	165	392
Northern .....	70	76	100	160
<i>Total for grain</i> .....	<i>837</i>	<i>900</i>	<i>1,036</i>	<i>1,724</i>
For hay .....	10	13	21	35
Fed off or cut for green feed or silage .....	13	10	..	..
<b>Total all barley</b> .....	<b>859</b>	<b>923</b>	<b>..</b>	<b>..</b>

#### Varieties

A number of improved barley varieties (Galleon, Forrest, Schooner, Skiff) have been released to farmers over the years. Schooner, a high yielding malting variety, bred by the Waite Agricultural Research Institute and released in 1983 has now become the predominant malting variety grown in South Australia.

#### Percentage of Area Planted to Barley Varieties

Variety	Type	1987-88	1988-89	1989-90
Schooner .....	Malting	33.9	38.5	32.1
Clipper .....	Malting	2.6	1.9	1.0
Weeah .....	Malting	1.7	0.9	0.8
Galleon .....	Feed	46.1	47.6	56.0
Forrest .....	Feed	13.9	9.4	8.3
Other .....	Feed	1.1	1.1	1.8

Source: Australian Barley Board.

**Marketing**

The Australian Barley Board, which commenced operations in 1939, is the statutory marketing authority for barley, oats and peas grown in South Australia and for barley grown in Victoria. The Board classifies barley on sample at the time of delivery for grower payment purposes. Classification is firstly by variety and secondly by physical characteristics. The Board normally receives three grades of barley; malting and feed grades, No. 3 and No. 4. The classification system used by the Board segregates low protein barley for use by the malting and brewing industries, while the higher protein barley is included in the No. 3 and No. 4 grades.

**Australian Barley Board Receivals  
(Tonnes)**

<i>Season</i>	<i>Malting</i>	<i>No. 3</i>	<i>No. 4</i>	<i>Total</i>
1987-88 .....	218,009	877,059	23,317	1,118,385
1988-89 .....	126,914	726,092	17,532	870,538
1989-90 .....	419,547	1,238,762	17,163	1,675,472

Source: Australian Barley Board.

**Oats**

Oats is an extremely versatile crop, providing not only valuable winter grazing when pastures are dormant but also a grain which is a valuable cereal food for both livestock and human consumption. The majority of the crop is used locally for animal fodder with only a small proportion being exported. As is the case with barley, some of the area sown for grain and hay is grazed until June or July, then allowed to re-grow to produce a crop which is subsequently cut for hay or harvested.

The Australian Barley Board is the marketing authority for oats grown in South Australia.

The main oat growing regions in South Australia are the Eyre Peninsula, the Mid-North, and the Upper South East regions. During the 1989-90 season 251,116 hectares of land were sown to oats in South Australia; 13.0 per cent of the Australian total.

**Oats Grown by Statistical Division**

<i>Use and geographical area</i>	<i>Area</i>		<i>Production</i>	
	<i>1988-89</i>	<i>1989-90</i>	<i>1988-89</i>	<i>1989-90</i>
	<i>'000 ha</i>	<i>'000 ha</i>	<i>'000 tonnes</i>	<i>'000 tonnes</i>
For grain:				
Statistical Division;				
Adelaide .....	0.1	0.5	0.4	0.9
Outer Adelaide .....	15.1	14.9	24.2	27.8
Yorke and Lower North .....	21.4	25.1	28.2	47.8
Murray Lands .....	19.4	20.9	18.2	25.0
South East .....	15.6	17.6	26.4	37.5
Eyre .....	73.6	81.9	23.2	93.0
Northern .....	10.2	11.1	10.8	17.8
<i>Total for grain</i> .....	<i>155.5</i>	<i>172.0</i>	<i>131.4</i>	<i>249.9</i>
For hay .....	48.6	55.7	112.4	181.3
Fed off or cut for green feed or silage .....	28.4	23.4	..	..
<b>Total all oats</b> .....	<b>232.6</b>	<b>251.1</b>	..	..

**Rye**

Rye is a minor crop, but it is 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 stockfeed, 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 1989-90, 23,314 hectares of rye for grain yielded 8,218 tonnes.

**Pastures**

The area reported as being under various types of pasture for the past three years, is shown in the following table.

Area Under Pasture at 31 March  
(Hectares)

Type of pasture	1988	1989	1990
Pure lucerne .....	106,162	110,913	119,468
Clovers and/or medics .....	1,001,710	940,817	921,654
Sown grasses only .....	120,058	154,146	155,909
Mixtures of grasses, legumes etc. ....	2,472,124	2,509,330	2,589,361
Native pasture .....	8,814,094	9,173,606	10,833,584
<i>Total</i> .....	<i>12,514,148</i>	<i>12,888,812</i>	<i>14,619,976</i>

The Murray Mallee and Eyre Peninsula have been transformed from unstable farming districts to productive areas through the sowing of improved pastures. The South East Statistical Division has more improved pastures than any other statistical division within the State.

Pastures Other Than Native Pasture at 31 March  
('000 hectares)

Statistical Division	1987	1988	1989
Adelaide .....	12	10	12
Outer Adelaide .....	365	365	377
Yorke and Lower North .....	303	311	306
Murray Lands .....	819	861	855
South East .....	1,281	1,314	1,359
Eyre .....	698	729	668
Northern .....	109	110	138
<i>Total</i> .....	<i>3,586</i>	<i>3,700</i>	<i>3,715</i>

The following table shows the area and production of pastures cut for hay, as well as the area cut for green feed or silage, for the past two years.

Production of Hay and Green Feed from Pastures

Use and geographical area	Area		Production	
	1988-89	1989-90	1988-89	1989-90
	hectares	hectares	tonnes	tonnes
Pure lucerne:				
Cut for hay .....	17,465	19,106	75,585	89,262
Cut for green feed or silage .....	1,202	819	..	..
Other than pure lucerne (whether sown or volunteer):				
Cut for hay .....	102,922	146,348	294,835	464,018
Cut for green feed or silage .....	3,146	4,551	..	..
<i>Total</i> .....	<i>124,735</i>	<i>170,824</i>	<i>..</i>	<i>..</i>

**Pasture seeds**

Sown pastures form the basis for efficient farming in the cereal and high rainfall zones of the State. Legumes (clovers and medics) maintain or increase soil fertility by harbouring rhizobial bacteria which convert nitrogen from the atmosphere. Legumes generally have high nutritive value as livestock feed, and by decaying or being returned as manure, increase soil nitrogen which can be utilised by cereals or other pasture grasses.

Pasture and Grass Harvested for Seed : Area and Production

Crop	Area		Production	
	1988-89	1989-90	1988-89	1989-90
	hectares	hectares	tonnes	tonnes
Lucerne .....	12,242	13,841	3,813	4,326
Subterranean clover .....	4,505	5,541	2,526	3,055
White clover .....	1,064	1,121	268	261
Barrel medic .....	3,244	5,151	659	1,659
<i>Phalaris tuberosa</i> .....	1,381	1,278	380	373
Other .....	3,552	4,739	739	1,291
<i>Total</i> .....	<i>25,988</i>	<i>31,671</i>	<i>8,386</i>	<i>10,965</i>

The seed industry has pioneered many overseas markets for legumes. While many crops are grown each year the industry quickly adapts to fill special demands. Lucerne is the most important perennial legume in South Australia and growers in this State supplied approximately 90 per cent of national production in 1989-90.

**Oilseeds**

In recent years there has been a significant variation in the area sown to oilseeds. These prove an alternative to wheat, wool and meat production and are mainly grown under contract to processors and stockfeed manufacturers. The seed is crushed to yield oils which have domestic and industrial applications and the high protein meal by-product is used for the manufacture of stockfeeds. Details of area and production of selected oilseeds are shown in the following table.

## Selected Oilseed Crops : Area and Production

<i>Season</i>	<i>Linseed</i>	<i>Rapeseed</i>	<i>Safflower</i>	<i>Sunflower</i>
AREA (hectares)				
1987-88 .....	1,290	4,789	3,201	789
1988-89 .....	248	4,271	3,319	551
1989-90 .....	86	3,525	2,868	359
PRODUCTION (tonnes)				
1987-88 .....	1,073	7,412	2,979	1,194
1988-89 .....	145	7,277	2,797	808
1989-90 .....	82	5,372	2,489	413

## 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 9,887 hectares devoted to market gardens, districts adjacent to Adelaide account for 4,356 hectares producing all types of vegetables, including large quantities of celery and early tomatoes for export.

## Principal Vegetables Grown for Human Consumption

<i>Vegetable</i>	<i>Area</i>		<i>Production</i>	
	<i>1988-89</i>	<i>1989-90</i>	<i>1988-89</i>	<i>1989-90</i>
	<i>hectares</i>	<i>hectares</i>	<i>tonnes</i>	<i>tonnes</i>
Broccoli .....	188	400	1,347	1,550
Brussels sprouts .....	109	129	2,129	2,411
Cabbages .....	222	236	7,750	8,240
Carrots .....	429	454	13,223	13,422
Cauliflowers .....	278	340	11,723	15,322
Celery .....	105	65	3,829	5,128
Cucumbers .....	55	57	2,320	3,104
Lettuces .....	348	369	6,101	6,803
Onions, white and brown .....	1,114	1,107	48,207	48,616
Potatoes:				
Early crop .....	2,417	2,328	76,362	77,183
Main crop .....	1,444	2,754	42,785	84,074
Pumpkins .....	344	404	6,041	7,274
Sweetcorn .....	84	57	1,370	811
Tomatoes:				
Field .....	140	158	4,416	5,876
Glasshouse .....	47	43	1,932	2,012
<i>Total (incl. other) .....</i>	<i>8,007</i>	<i>9,887</i>	<i>..</i>	<i>..</i>

About 2,506 hectares are cultivated in the South East Division, with approximately 1,904 hectares being potatoes. An area of some 25 hectares in the Northern Division (mainly on the coastal plains near Port Pirie) is used for the production of peas, potatoes and early tomatoes for Adelaide and Melbourne markets. A substantial area along the River Murray is devoted to production of potatoes, pumpkin 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 1989-90 average yield was 32 tonnes per hectare.

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.

**Grapes**

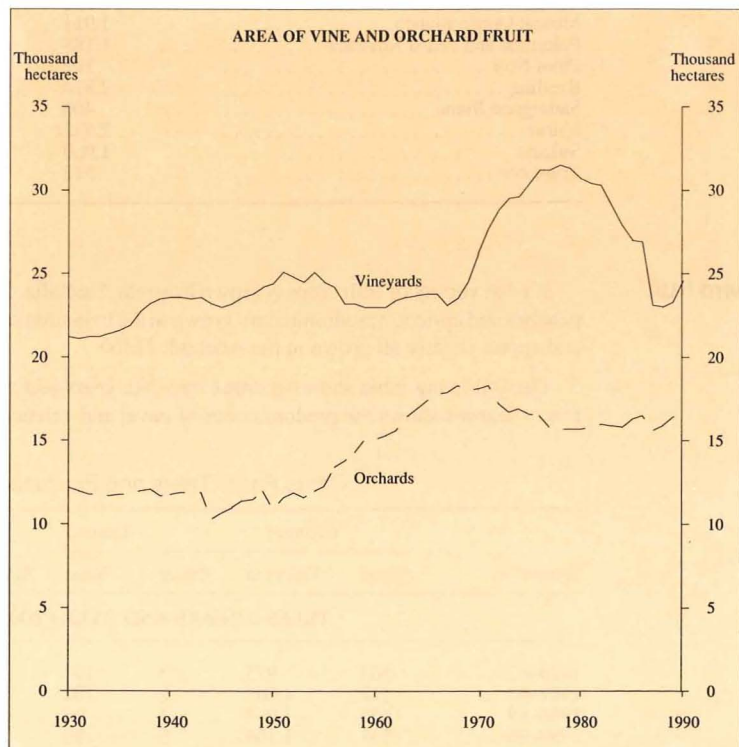
Approximately 42 per cent of Australia's vineyard area is located in South Australia where in 1989-90, 93 per cent of the grapes were used for winemaking. South Australia, in 1989-90, produced 316,423 tonnes of grapes for winemaking, 21,562 tonnes for the production of dried fruit, and 2,799 tonnes for other purposes.

Area and Production of Vineyards

Season	Vines		Production of grapes for		
	Bearing	Not yet bearing	Wine	Table	Drying
	hectares	hectares	tonnes	tonnes	tonnes
1986-87 .....	22,024	1,079	283,721	2,860	24,901
1987-88 .....	21,903	1,130	247,413	2,531	22,077
1988-89 .....	21,791	1,482	310,427	2,572	14,546
1989-90 .....	22,295	2,352	316,423	2,799	21,562

The area planted to vines at harvest 1990 was 24,647 hectares and total production 340,783 tonnes.

A steady decline in the area of vineyards over the past ten years has now been reversed with the South East substantially increasing its area. The decline was greatest in 1985-86, when the Vine Pull Scheme was in operation.



**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 seven easily recognisable regions 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 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 vines 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.

**Grape varieties**

Premium varieties, including Chardonnay, Pinot Noir, Sauvignon Blanc and have recorded increases in area, whilst areas of other varieties such as Grenache, Mataro and Doradillo declined.

**Area of Principal Varieties of Vine  
(Hectares)**

<i>Variety</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Cabernet Sauvignon .....	2,210	2,437	3,014
Chardonnay .....	1,283	1,588	1,939
Crouchen .....	491	426	369
Doradillo .....	765	731	659
Grenache .....	1,956	1,927	1,881
Mataro .....	516	506	478
Muscat Gordo Blanco .....	1,911	1,805	1,781
Palomino and Pedro Ximenez .....	1,183	1,150	1,047
Pinot Noir .....	392	458	555
Riesling .....	2,874	2,796	2,876
Sauvignon Blanc .....	406	419	489
Shiraz .....	2,852	2,855	3,084
Sultana .....	1,960	1,878	1,868
Traminer .....	312	302	303

**Orchard fruit**

A wide 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 Riverland) and apples (nearly all grown in the Adelaide Hills).

The following table showing citrus trees six years and over and production during recent seasons shows the predominance of navel and valencia oranges.

**Citrus Fruit : Trees and Production**

<i>Season</i>	<i>Oranges</i>			<i>Lemons and limes</i>	<i>Mandarins</i>	<i>Grape- fruit</i>	<i>Total(a)</i>
	<i>Navel</i>	<i>Valencia</i>	<i>Other</i>				
TREES 6 YEARS AND OVER ('000)							
1986-87 .....	504	975	3	101	66	72	1,723
1987-88 .....	513	1,006	2	102	69	71	1,764
1988-89 .....	526	1,065	3	95	71	72	1,835
1989-90 .....	537	1,106	3	90	85	69	1,895



## Citrus Fruit : Trees and Production (continued)

Season	Oranges			Lemons and limes	Mandarins	Grape- fruit	Total(a)
	Navel	Valencia	Other				
PRODUCTION (tonnes)							
1986-87	68,158	133,390	307	16,241	6,529	11,180	235,934
1987-88	63,207	121,398	272	12,044	5,720	12,127	214,860
1988-89	47,321	97,415	260	12,018	6,551	10,311	173,969
1989-90	53,569	120,483	299	13,879	7,111	10,498	206,266

(a) Includes other citrus.

Citrus growing is concentrated in the irrigation settlements of the Riverland. Approximately 68 per cent of the total orange crop is produced in the River Murray irrigation areas. The industry has shown great expansion in the last decade.

Apple growing is the principal non-citrus fruit industry and is concentrated in the Adelaide Hills where approximately 16,900 tonnes were produced in 1989-90.

The stone fruits industry became important following development of the irrigation schemes. South Australia is the major apricot-producing State, with the greater part of the crop being dried.

A large proportion of Australia's almonds are produced in South Australia, mainly in the Willunga and Riverland areas. In 1989-90, 1,361 tonnes were produced from 450,001 trees of bearing age.

Cherries, pears, plums and prunes, and strawberries are the most important of the remaining crops.

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.

## Non-citrus Orchard Fruit : Trees and Production

Season	Apples	Apricots	Cherries	Peaches	Pears	Plums and prunes
TREES 6 YEARS AND OVER ('000)						
1986-87	344	255	29	116	75	46
1987-88	339	266	32	115	76	43
1988-89	321	293	31	114	71	50
1989-90	325	319	30	127	73	59
PRODUCTION (tonnes)						
1986-87	21,045	17,402	375	8,607	6,398	1,981
1987-88	19,592	16,173	330	8,056	6,628	864
1988-89	18,317	17,054	330	6,850	6,312	975
1989-90	21,709	17,960	399	8,800	5,097	1,531

**Other crops**

Of the other crops cultivated in South Australia such as field peas, canary seed, triticale, lupins, vegetable seeds and coriander, the field peas and lupins are the most important.

In 1989-90, 117,374 hectares of field peas were grown for grain, yielding 142,965 tonnes; virtually all of this area is located in the cereal growing districts north of Adelaide. Field peas are grown mainly as livestock fodder or for processing into split peas.

Lupin grain is used mainly in stockfeed, as a protein source for poultry and pigs and also to some extent as a protein supplement for ruminants. In 1989-90, 45,391 tonnes of lupins were grown for grain from 42,275 hectares - approximately 70 per cent being produced in the Murray Lands and South East.

A considerable portion of the area devoted to nurseries is found in the vicinity of Adelaide and there are several fruit tree nurseries in the horticultural districts of the River Murray.

### Value of agricultural production

The value of agricultural production may be expressed in terms of gross value and local value. Gross value is defined as the value placed on recorded production at wholesale prices realised in principal markets. Where products are absorbed at a local point or become raw material for a secondary industry the value in each case is presumed to be the value of the principal market. Local value equals the gross value of production less marketing costs.

### Value and prices of crops

The gross value of crops (including pastures) for South Australia in the 1989-90 season was estimated at \$1,442.4 million.

#### Gross Value of Principal Crops (\$'000)

Commodity	1987-88	1988-89	1989-90
<b>Cereals:</b>			
Wheat .....	301,342	289,677	516,195
Barley .....	151,162	167,437	281,752
Oats .....	18,591	20,903	28,332
Rye .....	952	1,006	1,476
Crops for hay .....	15,214	17,166	23,822
Lupins for grain .....	6,039	8,189	9,075
Rapeseed .....	1,816	2,320	1,676
Sunflower .....	333	248	138
Field peas .....	37,122	33,502	33,471
Field beans .....	14,210	7,473	7,019
<b>Fruit (excluding grapes):</b>			
Citrus .....	52,594	62,455	64,509
Apples .....	18,612	21,248	23,906
Apricots .....	20,540	20,124	20,693
Peaches .....	3,786	3,493	4,535
Other .....	17,544	19,810	24,135
<b>Vine fruit:</b>			
Wine grapes .....	89,930	153,575	134,625
Table grapes .....	2,519	2,980	2,781
Dried currants, raisins, etc. ....	9,528	6,157	9,396
<b>Vegetables:</b>			
Potatoes .....	28,558	42,655	60,562
Tomatoes .....	4,886	5,152	6,782
Onions .....	16,477	39,693	28,878
Other .....	49,609	59,064	68,753
Other crops .....	31,143	38,944	31,016
<i>Total crops (excluding pastures) .....</i>	<i>892,507</i>	<i>1,023,271</i>	<i>1,383,527</i>
<b>Pastures:</b>			
Pasture seed .....	14,957	13,386	17,663
Pastures cut for hay .....	29,579	27,970	41,230
<i>Total pastures .....</i>	<i>44,536</i>	<i>41,356</i>	<i>58,894</i>
<b>Gross value of crops .....</b>	<b>937,043</b>	<b>1,064,627</b>	<b>1,442,421</b>

Market prices of principal crops grown in South Australia for the years 1987-88 to 1989-90 are set out in the following table.

Prices of Principal Crops  
(Dollars per tonne)

Commodity	1987-88	1988-89	1989-90
Cereals:			
Wheat (a) .....	169.07	215.62	199.39
Barley (a) .....	123.36	168.15	167.63
Oats .....	147.34	187.96	123.67
Rye .....	149.53	157.98	179.63
Fruit:			
Apples .....	1,008.67	1,240.00	1,150.00
Apricots .....	1,431.00	1,870.00	1,350.00
Peaches .....	1,150.00	1,530.00	1,140.00
Pears .....	929.57	994.00	1,482.00
Oranges:			
Navel (a) .....	291.30	390.00	380.00
Other (a) .....	234.15	380.00	291.00
Grapes:			
Table .....	1,153.00	1,183.00	1,221.00
Wine (b) .....	363.48	494.72	425.46
Vegetables:			
Potatoes (a) .....	232.47	358.00	375.56
Onions .....	381.93	722.13	446.59
Tomatoes:			
Glasshouse .....	1,460.00	1,690.50	1,979.50
Other .....	1,123.00	1,344.50	1,250.00

(a) Average price realised. (b) Weighted average price at winery.

### 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.

South Australia has approximately 11 per cent of the nation's sheep and 4 per cent of cattle.

#### The dog fence

This fence is an unbroken barrier of wire netting about two 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 dingoes.

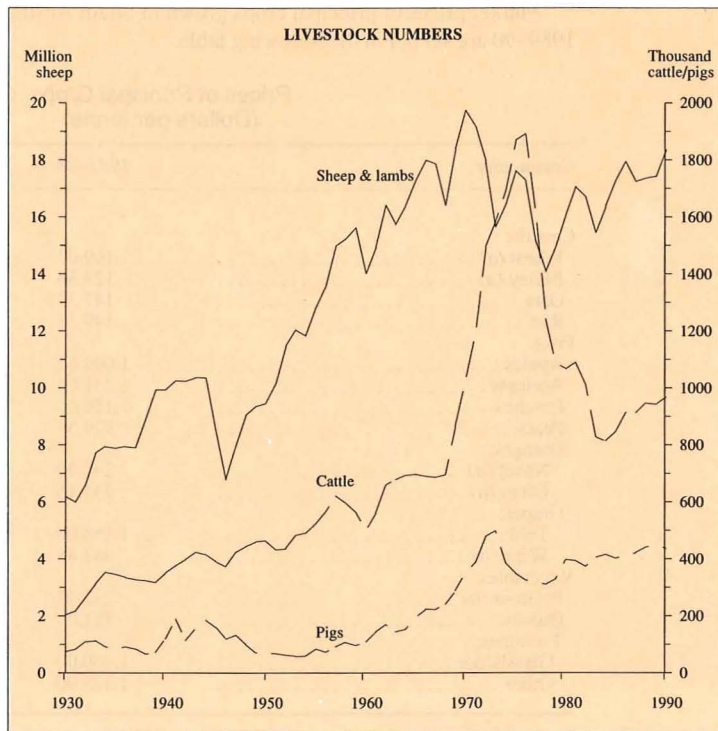
### Sheep

#### Numbers and distribution

At 31 March 1990 sheep in South Australia numbered 18,363,417. The next table shows the total number of sheep in statistical divisions at 31 March for the years 1988 to 1990.

Sheep Numbers : Statistical Divisions, at 31 March  
( '000)

Statistical Division	1988	1989	1990
Adelaide .....	39	37	43
Outer Adelaide .....	2,099	2,166	2,250
Yorke and Lower North .....	2,206	2,145	2,282
Murray Lands .....	2,484	2,488	2,506
South East .....	5,018	5,216	5,237
Eyre .....	2,518	2,294	2,631
Northern .....	2,989	3,068	3,415
<i>Total</i> .....	<i>17,352</i>	<i>17,414</i>	<i>18,363</i>



**Breeds of sheep**

The predominant breed in South Australia is the Merino which accounts for 90 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.

Of the remaining recognised breeds, the Australasian breeds, Corriedale and Polwarth, are most important, with Poll Dorset numbers having shown an increase over the past six years. The Corriedale and Polwarth are dual purpose sheep breeds used for meat but 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.

**Breeds of Sheep at 31 March ('000)**

Breed	1983	1986	1989
Merino	12,873.4	15,089.0	15,713.2
Corriedale	560.3	438.8	281.9
Dorset Horn	40.7	30.2	34.7
Poll Dorset	95.0	100.5	110.2
Border Leicester	115.0	128.5	113.9
Polwarth	103.8	111.0	73.7
Romney Marsh	28.8	21.4	17.3
Ryeland	6.0	5.3	5.6
Southdown	4.6	3.8	3.3
Suffolk	37.1	33.0	38.4
Other	12.9	28.1	25.2
Merino-Comeback	285.2	813.5	215.7
Crossbred	1,285.2	1,135.3	780.8
<b>Total</b>	<b>15,448.0</b>	<b>17,938.4</b>	<b>17,413.9</b>

British longwools (Border Leicester, Cheviot and Romney Marsh) are used for mating with the Merino or crossbred ewes 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.

The following table shows the composition of the sheep flock in South Australia at 31 March from 1986 to 1990.

Composition of Sheep Flock, at 31 March ('000)

Year	Rams	Breeding ewes	Other ewes	Wethers	Lambs and hoggets (under one year)	Total sheep
1986	232	8,168	857	4,002	4,248	17,506
1987	228	8,666	417	4,095	3,829	17,234
1988	226	8,478	433	4,083	4,132	17,352
1989	223	8,542	465	4,259	3,925	17,414
1990	225	8,565	505	4,778	4,290	18,363

**Lambing**

During the year ended 31 March 1990, 7,575,889 ewes were mated and the number of lambs marked totalled 6,455,939. The following table provides details of lambing activity during the years 1987-88 to 1989-90.

Ewes Mated and Lambing During Season

Description	Unit	1987-88	1988-89	1989-90
Breeding ewes at start of year	number	8,665,718	8,478,490	8,541,680
Intended matings for lambing during season	number	8,005,687	7,823,241	7,874,570
Actual matings during season	number	7,627,058	7,428,271	7,575,889
Actual matings to intended matings	per cent	95.3	95.0	96.2
Lambs marked	number	6,454,489	6,151,201	6,455,939
Lambs marked to:				
Actual matings	per cent	84.6	82.8	85.2
Breeding ewes	per cent	74.5	72.6	75.6

**Shearing and wool-clip**

In the agricultural areas of the State most shearing takes place during the late winter and spring months, August to November. Shearing in the South East Division occurs somewhat later, with most of the wool-clip being obtained in the periods October-November, February-March and August-September.

Approximately 92 per cent of the total wool is obtained from adult sheep. The average fleeceweight in South Australia for 1989-90 was 6.1 kg a head for adult sheep, with a record 6.6 kg a head being achieved in 1983-84. 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.

The next table gives details of sheep and lambs shorn, wool-clip and average fleeceweight in South Australia for the years 1987-88 to 1989-90.

**Sheep and Lambs Shorn : Wool-clip and Average Fleeceweight**

<i>Classification</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
NUMBER SHORN ('000)			
Sheep .....	15,732	16,019	16,281
Lambs .....	4,737	4,483	4,587
<i>Total</i> .....	<i>20,469</i>	<i>20,503</i>	<i>20,868</i>
WOOL-CLIP ('000 kg)			
Sheep .....	87,873	88,293	94,059
Lambs .....	8,645	8,358	8,865
Crutchings .....	4,335	4,354	4,623
<i>Total</i> .....	<i>100,854</i>	<i>101,005</i>	<i>107,547</i>
AVERAGE FLEECEWEIGHT (kg)(a)			
Sheep .....	5.9	5.8	6.1
Sheep and lambs .....	4.9	4.9	5.2

(a) Includes crutchings.

A breakdown of the figures for 1989-90 by statistical division 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, but more importantly by the lighter wool quality of the smaller framed sheep in this area.

**Sheep and Lambs Shorn : Wool-clip  
Statistical Divisions, 1989-90**

<i>Statistical Division</i>	<i>Number shorn</i>			<i>Wool-clip</i>		
	<i>Sheep</i>	<i>Lambs</i>	<i>Total</i>	<i>Sheep (a)</i>	<i>Lambs</i>	<i>Total (a)</i>
	<i>'000</i>	<i>'000</i>	<i>'000</i>	<i>'000 kg</i>	<i>'000 kg</i>	<i>'000 kg</i>
Adelaide .....	36	4	39	190	8	198
Outer Adelaide .....	2,066	457	2,523	11,686	823	12,509
Yorke and Lower North ...	2,034	580	2,613	13,021	1,102	14,123
Murray Lands .....	2,269	735	3,004	14,098	1,320	15,418
South East .....	4,832	1,309	6,141	27,112	2,423	29,535
Eyre .....	2,206	545	2,751	13,354	918	14,272
Northern .....	2,840	957	3,797	19,221	2,271	21,491
<i>Total</i> .....	<i>16,281</i>	<i>4,587</i>	<i>20,868</i>	<i>98,682</i>	<i>8,865</i>	<i>107,547</i>

(a) Includes crutchings.

## Wool industry

### Production

Total wool production consists of shorn wool (including crutchings) plus dead wool and wool exported on skins. The next table shows wool production and value from 1987-88 to 1989-90. The gross value of production has fallen to \$597.3 million with the commencement of the collapse in wool prices.

Wool Production and Value

Year	Production			Value of wool production \$'000
	Receivals of shorn wool (a)	Other(b)	Total	
	'000 kg	'000 kg	'000 kg	
1987-88 .....	114,169	8,251	122,420	575,348
1988-89 .....	113,316	6,980	120,298	612,190
1989-90 .....	126,515	9,780	136,294	597,296

(a) Source: The National Council of Wool Selling Brokers of Australia and ABS Dealers Collection.  
 (b) Includes fellmongered wool, dead wool, and wool exported on skins.

Quality and marketing

Most of the wool grown in South Australia is sold through the auction system. 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 East 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.

Adelaide Wool Sales

Year	Wool sold (scoured and greasy)		Amount realised \$'000	Average price per kg (greasy) cents	In store at 30 June bales
	Bales	Weight			
	number	'000 kg			
1987-88 .....	545,260	95,004	468,397	493.03	17,022
1988-89 .....	526,877	92,064	497,709	540.61	29,394
1989-90 .....	609,105	107,672	505,630	469.60	14,641

Source: The National Council of Wool Selling Brokers of Australia.

Prices

Prices paid for wool sold in South Australia tend to be on average less than prices realised in other States, this being attributable partly to the large proportion of medium to broad quality wools grown in South Australia and in western New South Wales.

Cattle

In comparison with other States, cattle grazing is not a major industry in South Australia. Of the cattle in Australia at 31 March 1990, 4 per cent of those used mainly for meat production and about 6 per cent of those for milk production were in South Australia. At 31 March 1990 the total number of cattle was 969,087.

Cattle Numbers : Statistical Divisions, at 31 March 1990 ('000)

Description	Adelaide	Yorke and			South East	Eyre	Northern
		Outer Adelaide	Lower North	Murray Lands			
Cattle:							
For meat production ...	4.9	70.1	28.2	75.1	401.2	19.0	231.8
For milk production ...	5.8	60.0	4.3	39.6	27.4	0.6	1.2
Total .....	10.7	130.0	32.4	114.7	428.6	19.6	233.1

(a) Used or intended for service.

## Cattle Numbers at 31 March

Description	1988	1989	1990
<b>Cattle for meat production:</b>			
Cows and heifers .....	420,887	429,342	440,919
Bulls (a) .....	19,695	20,613	20,716
Calves, under 1 year;			
Bull (a) .....	6,275	6,028	6,357
All other .....	209,879	203,389	222,018
Other cattle .....	137,536	138,716	140,211
<i>Total</i> .....	<i>794,272</i>	<i>798,088</i>	<i>830,221</i>
<b>Cattle for milk production:</b>			
Cows .....	97,236	91,747	88,705
Heifers, 1 year and over .....	28,979	27,865	27,153
Bulls (a) .....	1,616	1,540	1,366
Calves, under 1 year;			
Bull (a) .....	514	466	392
Heifer .....	22,961	21,526	20,199
House cows .....	1,660	1,272	1,051
<i>Total</i> .....	<i>152,966</i>	<i>144,416</i>	<i>138,866</i>
<b>Total cattle</b> .....	<b>947,238</b>	<b>942,504</b>	<b>969,087</b>

(a) Used or intended for service.

### Cattle for meat production

The number of cattle for meat production at 31 March 1990 was 830,221. This was a 4 per cent increase on the previous year and continues the steady rate of increase.

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.

### Cattle for milk production

There has been a steady decline in the total number of cattle for milk production over the last decade or so. The total number at 31 March 1990 was 138,866. This was a 4 per cent decrease on the previous year.

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.

## 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, an 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 1988-89 and earlier seasons.



Production and Utilisation of Milk  
(’000 litres)

Year	Total milk produced	Milk used for		
		Factory cheese (a)	Home consumption	
			Milk Board area	Outside Milk Board area
1987-88 .....	377,062	197,025	119,614	24,368
1988-89 .....	369,528	190,075	121,327	26,407
1989-90 .....	355,979	212,630	126,530	23,630

(a) Factory production accounts for virtually all cheese produced. Source: Australian Dairy Corporation.

**Pigs**

In past years pigs were kept in South Australia as a sideline on mixed farms or in conjunction with dairy cattle, but now there is a trend towards specialising in pigs. At 31 March 1990 there were 437,249 pigs, of which approximately 47 per cent were in Outer Adelaide and the Yorke and Lower North Divisions. The principal breeds in South Australia are Large White, Berkshire, Landrace and Tamworth.

Pig Numbers, at 31 March

Description	1988	1989	1990
Boars .....	3,573	3,470	3,461
Breeding sows .....	47,954	47,460	45,965
Gilts .....	5,317	6,060	4,860
Other pigs .....	384,172	392,903	382,963
<i>Total</i> .....	<i>441,016</i>	<i>449,893</i>	<i>437,249</i>

**Meat production and marketing**

South Australia is a relatively small meat producer, providing approximately eight per cent of total Australian production. The following table shows the number of livestock slaughtered for human consumption (including exports) and the production of meat during the last six years. Slaughtering and meat production on rural establishments are included in these figures.

Livestock Slaughtered and Meat Produced

Year	Livestock slaughtered for human consumption			Meat production (carcass weight)			
	Cattle and calves	Sheep and lambs	Pigs	Beef and veal	Mutton and lamb	Pigmeat	Total
1984-85 ....	434	3,428	589	80,672	65,936	36,508	183,116
1985-86 ....	429	3,856	588	79,313	72,992	37,432	189,736
1986-87 ....	461	4,009	643	91,478	76,527	40,761	208,766
1987-88 ....	453	4,154	602	92,818	79,896	36,671	209,386
1988-89 ....	408	3,961	659	88,143	78,362	40,364	206,869
1989-90 ....	456	4,588	621	100,457	88,991	40,815	230,263

Livestock, Average Prices at Adelaide Market  
(Dollars)

<i>Class of stock</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
<b>Fat cattle:</b>			
Bullocks and steers;			
Young, 120–160 kg medium .....	315.04	350.63	347.77
Steers, 250–300 kg medium .....	550.98	567.33	575.77
Bullocks, 300–350 kg medium .....	621.78	619.92	657.74
Cows;			
160–250 kg medium .....	410.84	408.65	421.75
Calves;			
Prime vealers .....	265.73	329.10	328.94
Good .....	153.21	198.44	180.67
<b>Fat sheep:</b>			
Wethers;			
Over 22 kg medium .....	22.93	18.92	8.01
Ewes;			
Under 22 kg medium .....	17.05	16.76	5.86
Lambs;			
16–19 kg medium .....	28.19	24.90	25.88
Young, 16–19 kg medium .....	30.86	31.61	27.80
<b>Pigs:</b>			
Choppers .....	206.12	225.94	234.87
Baconers .....	133.89	146.84	135.82
Porkers .....	79.07	89.13	87.25

**Gross value**

Gross value is the value placed on recorded production at the wholesale prices realised in principal markets. The following table shows for the past four years the gross value of livestock products, and livestock slaughterings and disposals.

Gross Value of Livestock Products and Livestock Slaughterings  
and Disposals

<i>Particulars</i>	<i>1987–88</i>	<i>1988–89</i>	<i>1989–90</i>
<b>LIVESTOCK PRODUCTS (\$'000)</b>			
Wool .....	575,348	612,190	597,296
Whole milk intake by factories:			
Manufactured .....	38,998	39,767	39,576
Market sales (a) .....	48,498	53,775	59,283
Eggs .....	22,873	22,840	23,909
Honey and beeswax .....	3,545	2,391	3,283
<i>Total livestock products</i> .....	<i>689,261</i>	<i>730,963</i>	<i>723,348</i>
<b>LIVESTOCK SLAUGHTERINGS AND DISPOSALS (\$'000)</b>			
Cattle and calves .....	133,704	137,610	177,270
Sheep and lambs .....	138,854	155,042	97,280
Pigs .....	62,301	80,395	73,121
Poultry .....	55,871	52,017	53,487
<i>Total livestock slaughterings and disposals</i> .....	<i>390,730</i>	<i>425,063</i>	<i>401,159</i>

(a) Market sales include white, flavoured, high and low fat milk, and UHT milk.

**Other rural industries**

*Poultry farming*

Poultry farming is a specialised and distinct industry and it is from the specialised hatcheries and chicken-raising establishments 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 97 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.

The trend in the egg industry in South Australia is towards a reduction in the total number of poultry farms, but an increase in average flock size. Housing of birds for commercial purposes is largely planned on the intensive principle, with deep litter pens or single and multiple bird cage units. Laying stock consists mainly of a specially produced crossbreed between the White Leghorn and Australian breeds.

Poultry Numbers at 31 March ('000)

<i>Particulars</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
Hens and pullets for egg production . . . . .	1,023	1,043	869
Other fowls and chickens . . . . .	3,437	3,764	4,054
Other poultry (a) . . . . .	40	33	27
<i>Total</i> . . . . .	<i>4,500</i>	<i>4,840</i>	<i>4,950</i>

(a) Includes ducks, turkeys, quail, pheasants etc.

Egg production in 1988-89, as reported by the South Australian Egg Board, totalled approximately 12.5 million dozen. However, these figures do not take into account small producers and the movement of eggs interstate independent of the Egg Board, which may represent a significant proportion of total egg production.

*Broiler industry*

The following table shows details of poultry slaughtered for human consumption for the last five years.

Poultry Slaughtered for Human Consumption<sup>(a)</sup>

<i>Year</i>	<i>Chickens (broilers, fryers or roasters)</i>	<i>Hens and stags</i>	<i>Other</i>	<i>Total</i>
NUMBER SLAUGHTERED ('000)				
1986-87 . . . . .	28,524	242	104	28,870
1987-88 . . . . .	28,641	294	95	29,029
1988-89 . . . . .	25,548	359	99	26,008
1989-90 . . . . .	27,198	457	105	27,760
1990-91 . . . . .	23,730	269	139	24,139

Poultry Slaughtered for Human Consumption<sup>(a)</sup> (continued)

Year	Chickens (broilers, fryers or roasters)	Hens and stags	Other	Total
DRESSED WEIGHT OF POULTRY SLAUGHTERED (tonnes)(b)				
1986-87	33,776	396	526	34,699
1987-88	34,907	561	505	35,973
1988-89	32,946	570	553	34,069
1989-90	35,248	929	573	36,750
1990-91	31,945	463	799	33,207

(a) Excludes geese slaughtered.

(b) Dressed weight of whole birds, pieces and giblets as reported by producers.

The broiler industry in South Australia has grown rapidly during the past 25 years. Broilers are specially bred meat strain birds of either sex, that are slaughtered between eight and ten weeks of age at a live weight of approximately 1.5 kg. This rapid growth and efficient conversion of feed to meat has been achieved by extensive breeding programs; the use of specially prepared high protein and energy value poultry feeds; growth promotion and disease control drugs; and broiler houses, with controlled temperature, ventilation and light, conducive to fast growth.

### Beekeeping

Beekeeping in South Australia is a small industry – in 1989-90 there were 120 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.

## 10.2 FORESTRY

There are an estimated six 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 environmental protection. 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 and conservation of indigenous plants and animals.

The plantation forest estate is of particular economic significance in South Australia, which because of climatic factors is very deficient in natural timber resources.

Of the State's forest reserve totalling 124,939 hectares, 73,489 hectares is currently under pine plantation (mainly *Pinus radiata*). It is estimated an additional 26,600 hectares are under plantation by private forestry organisations and individuals.

### 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 very limited extent for the production of poles, posts, rails and sleepers.

Since the 1983 bushfire damage of forest plantations in the South East and Central regions, an extensive replanting program has been undertaken. So far, a total of 16,740 hectares, 82 per cent of the affected area, has been re-established and it is planned that the remaining 18 per cent be planted by 1993. Only a small percentage of the salvaged logs remain under water storage and tests have shown that retrieved logs suffered no significant deterioration in strength or durability.

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.

### State forests

State forests are administered by the Woods and Forests Department which is responsible for the establishment, maintenance and utilisation 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 professional foresters. The Department is also the major timber producer in South Australia and operates three sawmills, a wood preservation plant and a timber engineering plant through its Timber Products Group.

State Forests (Hectares)						
Location	Planted during 1990			Plantations at 30 June 1991		
	Softwoods		Hard- woods	Softwoods		
	Pinus radiata	Other Pinus		Pinus radiata	Other Pinus	Hard- woods
<b>Northern Region:</b>						
Bundaleer .....	3.7	-	-	1,340.9	19.9	353.0
Wirrabara .....	-	-	-	1,917.1	52.4	44.0
Other forests .....	-	-	-	-	-	146.6
<i>Total Northern</i> .....	<i>3.7</i>	<i>-</i>	<i>-</i>	<i>3,258.0</i>	<i>72.3</i>	<i>543.6</i>
<b>Central Region:</b>						
Mount Crawford .....	117.1	-	38.4	3,863.4	240.4	35.2
Kuitpo .....	125.8	-	-	1,901.5	243.1	145.6
Second Valley .....	39.0	-	0.7	2,248.0	160.6	13.5
Other forests .....	-	-	-	701.5	21.3	79.5
<i>Total Central</i> .....	<i>281.9</i>	<i>-</i>	<i>39.1</i>	<i>8,714.4</i>	<i>665.4</i>	<i>273.8</i>
<b>South Eastern Region:</b>						
Penola .....	972.8	-	15.2	11,351.8	504.5	48.9
Comaum .....	14.0	-	5.0	2,958.4	282.3	11.4
Cave Range .....	-	-	-	206.9	105.2	-
Mount Burr .....	968.8	-	0.4	15,326.1	829.6	125.7
Noolook .....	84.1	-	-	4,673.8	4.0	-
Mount Gambier .....	241.8	-	18.1	9,527.8	382.6	55.5
Myora .....	66.4	-	-	13,150.0	433.2	19.6
<i>Total South Eastern</i> ....	<i>2,347.9</i>	<i>-</i>	<i>38.7</i>	<i>57,194.8</i>	<i>2,541.4</i>	<i>261.1</i>
Waterworks reserves .....	-	-	-	920.5	122.1	3.5
<b>Total State forests</b> ....	<b>2,633.5</b>	<b>-</b>	<b>77.8</b>	<b>70,087.7</b>	<b>3,401.2</b>	<b>1,082.0</b>

Source: South Australian Woods and Forests Department.

**Production**

Log production is met from final felling and thinning operations, and planned forest management ensures that the amount of timber cut each year does not exceed new growth.

The logging system used is from stump direct to mill. The Woods and Forests Department also supplies logs to private processing plants in South Australia.

CSR Softwoods and SEAS Sapfor Ltd are major wood processors based in the south east of the State. CSR Softwoods operates the only particle board plants in South Australia and its three sawmills at Kuitpo, Mount Gambier and Jamestown have been progressively updated. SEAS Sapfor operates mills at Tarpeena and Kalangadoo.

**Forest Log Production<sup>(a)</sup>**  
(Cubic metres)

Year	Softwood
1986-87 .....	521,854
1987-88 .....	709,268
1988-89 .....	763,173
1989-90 .....	710,487
1990-91 .....	685,348

(a) Source: South Australian Woods and Forests Department. Does not include production by the larger private forest growers.

**Production of Sawn Wood<sup>(a)</sup>**

Year	Cubic metres	Proportion of Australian total (per cent)
1986-87 .....	202,769	6.9
1987-88 .....	254,453	8.1
1988-89 .....	292,686	8.8
1989-90 .....	228,156	7.3
1990-91 .....	240,193	8.0

(a) Source: Australian Bureau of Agricultural and Resource Economics. Includes sawn equivalent of plywood and veneer, but excludes railway sleepers.

Total log production from State forests for Departmental sawmills and private industry deliveries includes logs for sawlog, preservation, peeler log and pulpwood.

**Employment**

The number of employees directly employed by the Woods and Forests Department was 1,267 at 30 June 1991, and included 493 people employed directly in milling activities.

**Research**

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 Organisation (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.

Joint research is being carried out into tree breeding through the Southern Tree Breeding Association whose South Australian members include the Woods and Forests Department, CSR Softwoods and SEAS Sapfor Ltd.

The Association is producing seed of improved quality to grow seedlings for planting in radiata pine forest areas.

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 outlets at Murray Bridge, Belair, Cavan, Berri and Bundaleer, a wide variety of Australian trees and shrubs suitable for planting in various climatic and soil conditions.

### Forest protection

The Woods and Forests Department has developed an extensive forest protection network, including the development of specialised off-road 4-wheel drive fire fighting and support vehicles. The Department's forest fire fighting units are registered as 12 Country Fire Service brigades and form part of local groups.

The clearing of undergrowth, the maintenance of fire-breaks, the staffing of observation towers and the constant readiness of fire fighting units are all an integral part of forestry practice.

Other protective measures include herbicide application to prevent plant disorders, measures to control insect pests in the forest, and the eradication of the various weeds and pests which threaten young plants.

A large outbreak of the *Sirex* wood wasp occurred in forest regions throughout the South East following the summer of 1986-87, however, this is currently under control after the Woods and Forests Department undertook the world's largest inoculation program to combat the destructive *Sirex*. More than 120,000 trees were inoculated with a nematode which sterilises *Sirex* eggs.

## 10.3 FISHERIES

Commercial fishing is undertaken along the entire South Australian coastline. In the sheltered waters of the Gulfs and the West Coast bays, operators take prawns or various marine scale fish species, while in offshore waters southern bluefin tuna and shark are sought.

Rock lobster is taken along the more exposed parts of the coast, while abalone is dived for in most areas. A small quantity of freshwater fish is caught in the River Murray and associated lakes.

The most commercially valuable species are rock lobster and prawns, with tuna, abalone, shark and whiting also making significant contributions. The general marine scale fishery supports the greatest number of fishermen, both amateur and professional.

The total value of fisheries produce landed commercially in South Australia in 1989-90 was \$125.6 million.

There were 1,189 licensed fishermen operating in South Australian waters at 30 June 1990. The number of licence holders in each of the fisheries was; general marine 665, rock lobster 280, prawn 53, Lakes and Coorong 41, Reach (River Murray) 42, abalone 35, and miscellaneous 41. There are approximately 15 Commonwealth licensed fishermen fishing for tuna in South Australia. In addition, there is an average of one employee fisherman engaged in the industry for each licensed fishing operation, although the number of employees on each vessel varies according to the fishing operation.

### Administration

The exploitation of fish resources adjacent to South Australia is controlled by three Acts, the South Australian *Fisheries Act 1982*, the Commonwealth *Fisheries Act 1952* and the *Continental Shelf (Living and Natural Resources) Act 1968* (Cwlth). The *Fisheries Act 1982* was proclaimed and regulations gazetted in June 1984.

Under the State Act, which is administered by the Department of Fisheries, provision is made for the licensing of fishermen and the registration of boats and gear. Control of fishing activity is maintained by licensing, zoning and seasonal closures, the establishment of size limits, bag limits and closed areas, 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 reserves. Controls of this nature are considered necessary for the orderly and efficient use of fish resources, which are in effect 'common property' resources.

### Finfish

The major marine species of finfish taken in South Australian waters are tuna, shark, Australian salmon, whiting, garfish and snapper.

Finfish : Production by Major Species<sup>(a)</sup>  
(<sup>000</sup> kg)

Species	1987-88	1988-89	1989-90
<b>Marine:</b>			
Australian salmon .....	669	422	411
Garfish .....	381	463	516
Leatherjacket .....	(b)664	90	77
Mullet .....	239	283	522
Mulloway .....	26	33	49
Oceanjacket .....	-	(c)887	(c)917
Orange roughy .....	-	(d)3,001	(d)2,888
Tommy ruff .....	499	489	340
Shark .....	2,494	2,564	2,258
Snook .....	72	99	104
Snapper .....	333	447	423
Tuna .....	9,785	4,872	4,228
Whiting (King George) .....	589	620	634
<i>Total (incl. other) .....</i>	<i>19,123</i>	<i>16,584</i>	<i>15,214</i>
<b>Freshwater:</b>			
Golden perch (Callop) .....	63	96	139
Murray cod .....	8	8	4
Bony bream .....	998	985	1,172
European carp .....	485	437	502
<i>Total (incl. other) .....</i>	<i>1,701</i>	<i>1,706</i>	<i>1,877</i>
<b>Total finfish production .....</b>	<b>20,824</b>	<b>18,289</b>	<b>17,091</b>

(a) Includes catches made in the new Great Australian Bight and South East Trawl Fisheries (b) Includes Oceanjacket. (c) Previously included in Leatherjacket. (d) Not available before 1988-89.  
Source: South Australian Department of Fisheries.



Tuna are taken in the waters west and south of Eyre Peninsula and Kangaroo Island. Occasional catches are taken beyond the continental shelf. The use of spotting aircraft has increased the efficiency of fishing operations. Traditionally most tuna have been landed at Port Lincoln or Streaky Bay although in recent years a significant proportion of the catch has been off-loaded onto Japanese 'carrier' freezer vessels for direct shipment to the Japanese markets. For 1989-90 the tuna fishery operated with an Australian quota of 5,265 tonnes.

Shark fishing extends along the entire coastline. The main ports of landing are Port Lincoln, Robe, Thevenard/Ceduna, Victor Harbor, Port Adelaide and the south-east rock lobster ports. The two most important species, namely school and gummy sharks, are mainly taken with large mesh gill nets and, to a lesser extent, with long-lines. The Commonwealth Government has prepared a management plan for the southern shark fishery to control the total effort in the fishery.

Operators using purse-seine nets take Australian salmon in waters adjacent to the moderately exposed coastline of southern Yorke and Eyre Peninsulas, Kangaroo Island and the West Coast. A total catch quota of 1,100 tonnes for South Australia has been imposed as emigrants from the South Australian stock are an important component of the Western Australian fishery. The main species of whiting taken is King George whiting which is captured commercially in Spencer and St Vincent Gulfs, Investigator Strait and the West Coast bays. Of the other species garfish, mulloway, black bream and snapper are regarded highly as table fish. Mulloway and black bream are netted mainly in the Coorong and waters adjacent to the River Murray Mouth area.

Snapper are mainly taken by hand-line throughout State waters. In recent years the catches being made by long-lines have increased.

Finfish : Gross Value of Production by Major Species<sup>(a)</sup>  
(\$'000)

Species	1987-88	1988-89	1989-90
Orange roughy .....	(b)	7,777	6,844
Tuna .....	15,749	10,053	(c)17,584
Whiting .....	3,679	4,793	4,173
Snapper .....	1,205	1,715	1,648
Garfish .....	1,376	1,543	1,402
Australian salmon .....	662	411	488
Shark .....	6,780	6,272	5,350
<i>Total (incl. other) .....</i>	<i>38,717</i>	<i>41,137</i>	<i>45,621</i>

(a) Includes catches made in the new Great Australian Bight and South East Trawl Fisheries. (b) Not available before 1988-89. (c) Price includes a component for value added.  
Source: South Australian Department of Fisheries.

The River Murray, Lakes area and Coorong are the only commercial sources of fresh water fish in the State because of the general lack of permanent streams and lakes. The River Murray has been sectioned into 'reaches' and 'reserves' for fishing purposes and each commercial river fisherman is issued with a permit to fish a separate reach.

**Crustaceans**

Prawn trawling is undertaken in Spencer and St Vincent Gulfs, Investigator Strait and on the West Coast of the State. Management of the prawn fisheries has been greatly enhanced by the adoption of permanent and seasonal closures designed to protect small and reproducing prawns. This in turn, maximises the value of the catch by directing fishing to periods when prawns are larger and of higher quality.

## Prawn Production

<i>Particulars</i>		1987-88	1988-89	1989-90
Estimated gross weight . . . . .	'000 kg	1,862	1,984	1,970
Value . . . . .	\$'000	20,778	23,026	22,747

*Source:* South Australian Department of Fisheries.

Pots by which southern rock lobster are taken are positioned 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 Althorpe Islands and Port Lincoln, and along the West Coast.

## Rock Lobster Production

<i>Particulars</i>		1987-88	1988-89	1989-90
Estimated gross weight . . . . .	'000 kg	2,468	2,275	2,525
Value . . . . .	\$'000	37,979	26,891	36,488

*Source:* South Australian Department of Fisheries.

To prevent over exploitation, almost all South Australian fisheries are 'limited entry' fisheries with constraints being placed on the number and size of vessels that may fish and the type or number of units of gear that may be used.

Although prawns and rock lobsters are the principal species of crustaceans fished in South Australia, there has been a recent increase in commercial fishing for blue crabs and sand crabs.

*Molluscs*

Abalone is by far the most important mollusc taken in South Australia and is found in greatest numbers at depths of 12 to 30 metres on the extensive reef substrata off the shores of western Eyre Peninsula. Smaller numbers are taken in Spencer Gulf, around Kangaroo Island and off the south-east coast. The two species exploited are greenlip and blacklip.

The abalone fishery is also subject to licence limitation with each diver required to have an authority to take abalone on his commercial fishing licence.

## Abalone Production

<i>Particulars</i>		1987-88	1988-89	1989-90
Gross (in shell) weight . . . . .	'000 kg	1,037	973	959
Value . . . . .	\$'000	13,219	14,542	16,693

*Source:* South Australian Department of Fisheries.

Other molluscs taken in South Australian waters include squid (valued at \$883,875 in 1989-90), octopus (\$380,633), and scallops (\$243,627).

**Marketing and processing**

Marketing and processing arrangements vary according to the species. Traditionally, most of the tuna landed in South Australia is canned (not necessarily in South Australia) for domestic consumption. With the introduction of Individual Transferable Quotas and subsequent restructuring of the industry, the higher valued *sashimi* (raw fish) market in Japan is being examined. 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. Sharks 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. A proportion of the prime species landed in South Australia are sold for Australian east coast markets.

**Research**

Continuing research is important for effective fisheries management. The State Fisheries Department conducts rock lobster, prawn, yabbie, blue crab, Australian salmon, abalone, freshwater fish, squid, whiting, snapper and oyster research programs including tagging, stock sampling, and market measuring. The Department also undertakes research into aspects of its fisheries management programs.

**Conservation**

The State Department of Fisheries has pioneered, in Australia, the concept of marine national parks and has created thirteen aquatic reserves with a total area of 14,971 hectares. Seal colonies, mangrove communities and areas of scientific and educational interest have been protected. Mangrove communities and allied samphire flats have received particular attention because of their recognised contribution to the productivity of the near-shore marine environment. All mangroves in South Australia are fully protected.

## Chapter 11

# MANUFACTURING

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### 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. As well as this change in the method of obtaining information on economic activities, different criteria were used to define manufacturing and this resulted in a significant fall in the number of establishments. In particular, service establishments such as dry cleaners and motor repair workshops were 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 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 1988-89 there were 913 establishments employing fewer than four persons.

Prior to the 1987-88 Census, full-scale Manufacturing Censuses were conducted for each year with the exception of 1970-71 and 1985-86. In future, these full-scale censuses will be conducted on a triennial basis, with small-scale censuses being conducted in each of the intervening years. For these small-scale censuses, businesses provide details relating to employment at end of June, wages and salaries paid and turnover.

### Structure and location

To a considerable extent, industrialisation since the 1939-45 War, 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. The following tables show this concentration of manufacturing activity in the Adelaide Statistical Division (ASD).

#### Manufacturing Establishments : Summary of Operations, 1988-89

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Item	Unit	Adelaide Statistical Division	South Australia	ASD as percentage of SA
Establishments at 30 June . .	Number	2,034	2,542	80
Employment at 30 June:				
Males . . . . .	Number	61,237	77,289	79
Females . . . . .	Number	21,196	25,666	83
Wages and salaries . . . . .	\$'000	1,824,474	2,312,392	79
Turnover . . . . .	\$'000	9,975,063	13,066,741	76

**Manufacturing Establishments : Summary of Manufacturing Operations  
by Statistical Division, 1988-89**

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

<i>Statistical Division</i>	<i>Establish- ments at 30 June</i>	<i>Employ- ment at 30 June</i>	<i>Wages and salaries</i>	<i>Turnover</i>
	<i>number</i>	<i>number</i>	<i>\$'000</i>	<i>\$'000</i>
Adelaide .....	2,034	82,433	1,824,474	9,975,063
Outer Adelaide .....	155	4,202	90,596	654,910
Yorke and Lower North .....	49	635	9,200	61,043
Murray Lands .....	102	2,982	61,189	515,769
South East .....	95	5,225	117,927	591,108
Eyre .....	39	692	13,922	105,719
Northern .....	68	6,786	195,084	1,163,128
<i>Total State</i> .....	<i>2,542</i>	<i>102,955</i>	<i>2,312,392</i>	<i>13,066,741</i>

Generally, industrial plants outside the Adelaide Statistical Division are located near the sources of supply of raw materials. 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, meat slaughtering, fish processing and cement manufacturing plants. The two most important manufacturing undertakings beyond the vicinity of Adelaide are the iron and steel complex at Whyalla and the silver-lead-zinc smelters at Port Pirie. The sites of these undertakings together with the power station at Port Augusta are related to the location of mineral resources.

A summary of manufacturing operations by industry subdivision within the Adelaide Statistical Division is detailed below and the distribution of activity between this Division and the Rest of the State can be seen by comparing this and the subsequent table.

**Manufacturing Establishments : Summary of Operations  
by Industry Subdivision, Adelaide Statistical Division, 1988-89**

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

<i>Industry Subdivision</i>	<i>Establish- ments at 30 June</i>	<i>Employ- ment at 30 June</i>	<i>Wages and salaries</i>	<i>Turnover</i>
	<i>number</i>	<i>number</i>	<i>\$'000</i>	<i>\$'000</i>
Food, beverages and tobacco .....	189	9,751	212,458	1,301,628
Textiles .....	41	1,988	47,682	345,057
Clothing and footwear .....	103	3,901	68,674	266,028
Wood, wood products and furniture ...	335	5,271	93,231	409,265
Paper, paper products, printing and publishing .....	192	6,133	149,429	631,602
Chemical, petroleum and coal products ..	41	2,084	57,142	459,843
Non-metallic mineral products .....	91	3,388	83,604	475,938
Basic metal products .....	42	2,372	53,701	399,009
Fabricated metal products .....	346	7,883	161,357	767,512
Transport equipment .....	126	18,003	428,384	2,849,903
Other machinery and equipment .....	329	14,497	317,300	1,342,663
Miscellaneous manufacturing .....	199	7,162	151,513	726,616
<i>Total manufacturing</i> .....	<i>2,034</i>	<i>82,433</i>	<i>1,824,474</i>	<i>9,975,063</i>

The number of manufacturing establishments in South Australia employing four or more persons increased from 2,505 in 1987-88 to 2,542 in 1988-89, an increase of 1.5 per cent. Employment at 30 June 1989 was 102,955, an increase of 8.2 per cent from the 30 June 1988 figure of 95,168. The industry groups transport equipment, basic metal products, and other machinery and equipment recorded the largest percentage increases in employment.

### Manufacturing Establishments : Summary of Operations by Industry Subdivision, 1988-89

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Industry Subdivision	Establish- ments at 30 June	Employ- ment at 30 June	Wages and salaries	Turnover
	number	number	\$'000	\$'000
Food, beverages and tobacco .....	381	16,307	348,175	2,471,218
Textiles .....	48	2,493	54,975	377,636
Clothing and footwear .....	106	4,152	73,258	272,722
Wood, wood products and furniture ...	394	7,977	152,224	725,457
Paper, paper products, printing and publishing .....	239	7,841	197,294	830,921
Chemical, petroleum and coal products .	50	2,333	62,447	514,416
Non-metallic mineral products .....	126	3,890	95,758	548,566
Basic metal products .....	48	7,675	218,263	1,439,724
Fabricated metal products .....	419	8,883	180,592	852,643
Transport equipment .....	148	18,752	443,629	2,883,852
Other machinery and equipment .....	372	15,344	331,416	1,409,167
Miscellaneous manufacturing .....	211	7,308	154,362	740,418
<i>Total manufacturing .....</i>	<i>2,542</i>	<i>102,955</i>	<i>2,312,392</i>	<i>13,066,741</i>

The importance of the 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, 1988-89

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Item	Unit	South Australia as a percentage of Australia		
		South Australia	Australia	
Establishments at 30 June ..	Number	2,542	31,249	8.1
Employment at 30 June:				
Males .....	Number	77,289	781,372	9.9
Females .....	Number	25,666	291,262	8.8
Wages and salaries .....	\$m	2,312.4	25,599.1	9.0
Turnover .....	\$m	13,066.7	151,856.6	8.6

Although there were 2,542 establishments operating at 30 June 1989 only 193 or 7.6 per cent had an employment of 100 persons or more while 1,762 establishments, or 69.3 per cent of the total, employed less than 20 persons. The 26 largest establishments employed 30,468 persons or 29.6 per cent of the total.

In the following table manufacturing establishments are grouped according to the number of persons employed.

### Manufacturing Establishments : Selected Variables by Size of Establishment, 30 June 1989

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Size of establishment (average employment)	Establish- ments	Persons employed	Wages and salaries	Turnover
	number	number	\$'000	\$'000
Fewer than 20 .....	1,762	14,574	241,034	1,230,947
20 but fewer than 50 .....	437	13,474	269,943	1,587,856
50 but fewer than 100 .....	150	10,361	220,988	1,225,675
100 but fewer than 200 .....	105	14,609	326,444	1,834,792
200 but fewer than 500 .....	62	19,469	477,292	3,014,458
500 or more .....	26	30,468	764,508	4,105,145

Details of persons employed and distribution of employment in manufacturing establishments for 1988-89 are given in the following tables. Females constituted 24.9 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 high proportion of females.

### Manufacturing Establishments : Employment 30 June 1989

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Industry Subdivision	Males	Females	Persons	Percentage of total employment
Food, beverages and tobacco .....	11,127	5,180	16,307	15.8
Textiles .....	1,345	1,148	2,493	2.4
Clothing and footwear .....	1,149	3,003	4,152	4.0
Wood, wood products and furniture ...	6,828	1,149	7,977	7.7
Paper, paper products, printing and publishing .....	5,424	2,417	7,841	7.6
Chemical, petroleum and coal products	1,870	463	2,333	2.3
Non-metallic mineral products .....	3,473	417	3,890	3.8
Basic metal products .....	7,113	562	7,675	7.5
Fabricated metal products .....	7,262	1,621	8,883	8.6
Transport equipment .....	15,762	2,990	18,752	18.2
Other machinery and equipment .....	11,307	4,037	15,344	14.9
Miscellaneous manufacturing .....	4,629	2,679	7,308	7.1
<i>Total manufacturing</i> .....	<i>77,289</i>	<i>25,666</i>	<i>102,955</i>	<i>100.0</i>

### Manufacturing Establishments : Employment 30 June 1989 by Type of Employment

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Industry Subdivision	Working proprietors	Employees	Total
Food, beverages and tobacco .....	205	16,102	16,307
Textiles .....	19	2,474	2,493
Clothing and footwear .....	34	4,118	4,152
Wood, wood products and furniture .....	249	7,728	7,977
Paper, paper products, printing and publishing ...	55	7,786	7,841
Chemical, petroleum and coal products .....	5	2,328	2,333
Non-metallic mineral products .....	32	3,858	3,890
Basic metal products .....	17	7,658	7,675
Fabricated metal products .....	180	8,703	8,883
Transport equipment .....	26	18,726	18,752
Other machinery and equipment .....	96	15,248	15,344
Miscellaneous manufacturing .....	64	7,244	7,308
<i>Total manufacturing</i> .....	<i>982</i>	<i>101,973</i>	<i>102,955</i>

**Individual industries**

In this section details are given of major South Australian secondary industries. However, in order to maintain confidentiality of details for individual businesses, statistics relating to a number of important industries are not published. The classification used is based on the 1983 edition of the Australian Standard Industrial Classification (ASIC).

**Meat and abattoir by-products**

Most of the abattoirs in South Australia are located in country areas. 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**

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Year	Establishments		Employment at 30 June	Wages and salaries \$'000	Purchases, etc. \$'000	Turnover \$'000	Value added \$'000
	Adelaide Statistical Division	Other					
	number	number					
1984-85	13	29	2,584	42,156	238,178	302,776	64,998
1986-87	9	27	2,764	51,328	224,777	300,384	78,999
1987-88	13	25	2,565	53,397	n.a.	331,768	n.a.
1988-89		40	2,759	55,443	n.a.	382,581	n.a.

**Wine and brandy**

South Australia is the leading State in wine and brandy production. For 1988-89, 40 per cent of Australian establishments classified to this industry were located in this State and their contribution to national totals was 48 per cent of employment, 54 per cent of wages and salaries and 54 per cent of turnover.

**Wine and Brandy**

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Year	Establishments		Employment at 30 June	Wages and salaries \$'000	Purchases, etc. \$'000	Turnover \$'000	Value added \$'000
	Adelaide Statistical Division	Other					
	number	number					
1984-85	24	43	2,475	39,306	195,026	281,129	119,491
1986-87	25	50	2,659	50,857	257,853	371,499	135,372
1987-88	25	51	2,575	54,213	n.a.	425,476	n.a.
1988-89		83	2,696	60,663	n.a.	508,628	n.a.

**Wood and wood products**

The major activities in this sector of manufacturing are log sawmilling, resawn and dressed timber and joinery and wooden structural fittings industries.

**Wood and Wood Products**

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Year	Establishments		Employment at 30 June	Wages and salaries \$'000	Purchases, etc. \$'000	Turnover \$'000	Value added \$'000
	Adelaide Statistical Division	Other					
	number	number					
1984-85	126	39	4,694	79,586	221,720	373,266	154,460
1986-87	137	36	4,411	80,451	233,959	382,079	159,515
1987-88	144	36	4,068	79,830	n.a.	396,300	n.a.
1988-89	166	42	4,863	100,607	n.a.	504,477	n.a.



**Printing and allied industries**

There are two large establishments producing daily 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 Stateprint Division of the Department of State Services, are also incorporated in the following table.

**Printing and Allied Industries**

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Year	Establishments		Employment at 30 June	Wages and salaries	Purchases, etc.	Turnover	Value added
	Adelaide Statistical Division	Other					
	number	number					
1984-85 .....	161	37	5,856	94,099	142,885	356,291	219,276
1986-87 .....	157	40	5,692	120,950	181,066	421,005	243,509
1987-88 .....	168	40	5,547	118,643	n.a.	481,110	n.a.
1988-89 .....	178	45	5,893	138,697	n.a.	538,752	n.a.

**Cement and concrete products**

Only one firm produces cement in South Australia, its two manufacturing plants being at Birkenhead and Angaston. The Angaston plant, based on the limestone deposits, is an example of a manufacturing location being established near the source of the raw material.

**Cement and Concrete Products**

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Year	Establishments		Employment at 30 June	Wages and salaries	Purchases, etc.	Turnover	Value added
	Adelaide Statistical Division	Other					
	number	number					
1984-85 .....	54	40	1,830	35,724	156,286	251,917	96,966
1986-87 .....	59	35	1,990	50,157	158,439	285,129	129,319
1987-88 .....	61	40	2,033	50,486	n.a.	302,834	n.a.
1988-89 .....	48	24	2,153	53,522	n.a.	342,656	n.a.

**Basic iron and steel**

In 1941 a blast furnace was installed at Whyalla to utilise iron ore from the Middleback Ranges. This ore is transported by rail a distance of fifty-five 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 plant began producing steel. The main items of production are structural steel sections (such as girders and beams) and rails. In 1988-89, the 30 establishments in South Australia, classified to this industry group, reported total employment at 30 June 1989 of 5,289; wages and salaries \$151,022,000 and turnover \$781,313,000.

**Transport equipment (motor vehicles and parts)**

The largest single industry in South Australia and a major contributor to industrial growth since 1945 is the motor vehicle industry. However, as there are only a few firms engaged in motor vehicle production, confidentiality reasons prevent publication of detailed figures.

In 1988–89 establishments mainly engaged in the manufacture of motor vehicles and parts contributed 16.0 per cent of South Australia's total manufacturing employment. It should be noted that this figure understates the importance of the motor vehicle industry to South Australia as some firms involved in the manufacture of components and accessories are classified to other industries. (For example, firms making rubber components for the motor industry are considered to be in the rubber industry.)

### Transport Equipment (Motor Vehicles and Parts)

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Year	Establishments		Employment at 30 June	Wages and salaries	Purchases, etc.	Turnover	Value added
	Adelaide Statistical Division	Other					
	number	number					
1984–85 .....	86	6	14,129	272,341	894,531	1,321,531	439,513
1986–87 .....	93	3	13,275	296,463	1,092,242	1,653,310	549,164
1987–88 .....	95	7	13,627	322,621	n.a.	1,807,932	n.a.
1988–89 .....	100	7	16,540	391,900	n.a.	2,371,118	n.a.

### 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, cooking stoves and ranges. These items constitute a significant part of the total activity shown in the next table. Also represented are manufacturers of radio and television components, water-heating systems, batteries and other electrical machinery and equipment.

This group of industries is the second most important in the State and in 1988–89 accounted for 8.9 per cent of total manufacturing employment in South Australia.

### Appliances and Electrical Equipment

(Note: Excludes single establishment enterprises with fewer than four persons employed.)

Year	Establishments		Employment at 30 June	Wages and salaries	Purchases, etc.	Turnover	Value added
	Adelaide Statistical Division	Other					
	number	number					
1984–85 .....	83	3	7,358	126,305	253,604	486,571	231,223
1986–87 .....	85	3	7,687	143,082	340,254	639,024	305,488
1987–88 .....	94	2	8,269	163,014	n.a.	742,325	n.a.
1988–89 .....	109	4	9,215	195,277	n.a.	897,868	n.a.

### Further references

Additional information may be found in the following ABS publications:

- 8202.0 *Manufacturing Establishments: Summary of Operations by Industry Class, Australia*
- 8203.0 *Manufacturing Establishments: Details of Operations by Industry Class, Australia*
- 8204.0 *Manufacturing Establishments: Selected Items of Data Classified by Industry and Employment Size, Australia*
- 8209.4 *Manufacturing Establishments: Summary of Operations by Industry, South Australia*
- 8303.0 *Manufacturing Commodities: Principal Articles Produced, Australia*

## Chapter 12

# MINING AND ENERGY

## 12.1 MINING

South Australia has a well developed mineral industry and in recent years crude oil and natural gas have surpassed coal and iron ore as the major products. The State also has important resources of industrial minerals which make up a significant proportion of the total annual value of mineral production.

The *Mining Act 1971* 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*. The *Petroleum Act 1940*, *Petroleum (Submerged Lands) Act 1982*, *Cooper Basin (Ratification) Act 1975*, *Stony Point (Liquids Project) Ratification Act 1981* and the *Petroleum Shortages Act 1980* 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-General, Department of Mines and Energy.

### Mining claims leases and licences

The granting of leases and licences and the pegging of new claims is governed by the *Mining Act 1971*. A total of 280 private mines was current at 30 June 1991. Mineral royalties received by the Department of Mines and Energy during 1990-91 amounted to \$79,532,000.

The following table shows tenements held under the *Mining Act 1971* and the *Petroleum Act 1940* for the last three years.

Tenements Held Under Mining and Petroleum Acts

Particulars	At 30 June		
	1989	1990	1991
Mineral claims .....	133	175	113
Precious stones claims .....	2,285	2,556	2,517
Leases .....	1,665	1,568	1,620
Exploration licences .....	138	133	130
Petroleum exploration and production licences and permits .....	52	61	86

### Minerals resumed

The mineral rights on private land were resumed by the Crown in July 1972 so that all minerals are the property of the Crown.

A royalty of 2.5 per cent (5 per cent for extractive minerals) of the value of the minerals, realised upon their sale, 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.

**Extractive minerals**

Extractive minerals are defined as sand, gravel, stone, shell, shale or clay but this does not include any such minerals that are mined for a prescribed purpose, nor fire-clay, bentonite or kaolin.

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 mining operations. The Fund may also be used for research into methods of mining engineering and practice with a view to reducing environmental damage or impairment.

**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 landholder if the land is freehold or held on perpetual lease. Three weeks notice must also be given to any landholder before 'declared equipment' can be used on his land. In either case the landholder 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.

Exploration licences have a maximum term of five 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.

**Mineral industry**

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.

Statistics on the operations of establishments in Division B have been collected each year in the mining census, which since 1968-69 has been conducted on an integrated basis with other economic censuses. However, the 1988-89 Census of Mining was restricted to the metallic minerals, coal, oil and gas industries. A full census including statistics on construction materials and other non-metallic industries was conducted for the 1989-90 financial year.

#### Mining Establishments : Summary of Operations by Industry Subdivision, 1988-89

Industry Subdivision	Number of establishments operating at 30 June 1989	Persons employed (a)	Wages and salaries	Turnover	Purchases, transfers in and selected expenses	Value added
			\$ million	\$ million	\$ million	\$ million
Metallic minerals .....	3 )					
Coal .....	1 )					
Crude petroleum including natural gas ...	1 )	2,437	87.8	952.1	167.4	801.2

(a) At 30 June 1989; includes working proprietors.

**Mineral commodities**

Mineral commodity statistics published in the *South Australian Year Book* are those recorded by the Director-General of Mines and Energy.

Mining and Quarrying Production<sup>(a)</sup>

Mineral	Unit of quantity	Quantity		Value (b)	
		1988-89	1989-90 (c)	1988-89	1989-90 (c)
				\$'000	\$'000
<b>Metallic:</b>					
Copper	'000 tonnes	17	49	57,683	147,495
Iron ore (c)	'000 tonnes	2,346	2,439	21,117	21,953
Uranium oxide	tonnes	645	642	50,533	40,312
Other	..	..	..	1,630	12,026
<b>Non-metallic:</b>					
Barite	'000 tonnes	10	12	438	671
Coal (d)	'000 tonnes	2,675	2,922	66,847	66,746
Dolomite	'000 tonnes	944	991	4,447	5,711
Gypsum	'000 tonnes	1,399	1,400	3,970	3,992
Kaolin	'000 tonnes	7	6	579	533
Limestone	'000 tonnes	1,921	1,889	9,497	12,582
Opal (e)	..	..	..	61,700	51,996
Salt	'000 tonnes	857	1,006	3,910	4,821
Talc	'000 tonnes	14	14	986	1,031
Other	..	..	..	1,808	1,878
Construction material, quarrying	'000 tonnes	12,108	10,498	68,715	68,938
Natural sand products	'000 tonnes	3,192	3,225	18,893	20,724
Natural clay products	'000 tonnes	721	895	2,255	2,455
Natural gas (f)	Millions of m <sup>3</sup>	4,827	4,891	321,312	349,241
Condensates	Kilolitres	752,287	647,789	92,449	95,783
Crude oil	Kilolitres	1,650,657	1,492,009	206,411	224,318
Liquefied petroleum gas	'000 tonnes	563	518	71,576	81,894
<b>Total</b>		..	..	<b>1,066,756</b>	<b>1,215,101</b>

(a) Quantities disposed of as recorded by the Department of Mines and Energy. (b) Ex-mine site. (c) Preliminary figures. (d) Up to December 1988, value of coal production was provided by ETSA. (e) Estimated. (f) Value of gas ex-Moomba plant includes value of CO<sub>2</sub> from Caroline No. 1 well and also value of ethane.

**Iron ore**

Iron ore is mined in the Middleback Ranges on upper Eyre Peninsula. These ranges lie to the west of Whyalla, a coastal port with a steelworks, and extend discontinuously from Iron Knob in the north to Iron Duke nearly 65 kilometres to the south. In excess of 186 million tonnes of ore have been mined since 1900. Production for 1990 was 2.5 million tonnes. Following development of the South Middleback Ranges, the Iron Duke mine will replace the Iron Baron operation 30 kilometres to the north. Production commenced at Iron Duke early in 1990.

**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.

Copper production fluctuated over the years but renewed interest in copper during the 1960s led to the discovery of new, but lower grade, ore bodies at the old copper fields of Kanmantoo and Mount Gunson, and to the working of remnant low-grade ore at Burra. Poona Mine near Moonta produced 2,745 tonnes of copper during 1990 and a second open cut mine, the Wheal Hughes, is being developed nearby. Cupric oxide is produced at Burra for the manufacture of timber preservatives, catalysts, friction materials for brakes and clutches, copper chemicals and as a trace element in agriculture. Raw materials are now being derived from Mount Gunson by heap leaching and cementation of remnant oxidised copper ores and 1,896 tonnes of copper (as copper cement) were produced during 1990.

The Olympic Dam deposit at Roxby Downs, which has an area of twenty square kilometres, has indicated ore reserves of at least 2,000 million tonnes averaging 1.6 per cent copper, 0.6 kg/tonne uranium oxide, 0.6 gm/tonne gold and 4gm/tonne silver. Detailed infill drilling has indicated a higher grade zone of ore reserves. The joint venture partners (Western Mining Corporation Ltd and the BP Group) commenced production of this \$850 million project in mid-1988. During 1990, 41,850 tonnes of copper, 1,722 tonnes of uranium oxide and 22,585 ounces of gold were produced. Expansion beyond initial project levels is dependent on future market requirements for copper and uranium.

### *Gypsum*

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. Other deposits are found at Streaky Bay, Lake Fowler, Cooke Plains and the Morgan-Blanchetown area.

These 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. Approximately 1.2 million tonnes were produced in 1990.

### *Salt*

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. Production for 1990 was approximately 944,000 tonnes.

### *Opal*

The opal fields at Coober Pedy, Mintabie and Andamooka supply most of the world's precious opal. The estimated value of raw opal production in South Australia was \$47.1 million in 1990. Most of this is exported to Hong Kong, Japan, USA and Germany.

### *Coal*

Several large coalfields have been discovered in South Australia but only the Leigh Creek coalfield operated by the Electricity Trust of South Australia is being mined. To date more than 46 million tonnes of coal has been delivered to the power stations at Port Augusta. Production was approximately 2.6 million tonnes during 1990.

### *Oil and natural gas*

The \$1.5 billion Cooper Basin Liquids Project, completed in September 1984, is the largest onshore petroleum development in Australia.

Production during 1990 amounted to 1.4 million kilolitres of crude oil, 672,000 kilolitres of condensate, 536,000 tonnes of liquefied petroleum gas and approximately 4,600 million cubic metres of natural gas. Thus, the South Australian portion of the Cooper Basin contributed a significant proportion of the nation's crude oil and condensate production, LPG output and natural gas requirements.

### *Limestone and dolomite*

Principal deposits include dolomite at Ardrossan for the steel industry; limestone at Penrice, near Angaston, for the chemical and cement industries; and limestone at Klein Point and Rapid Bay for the cement industry. During 1990 approximate production of limestone was 1.9 million tonnes and of dolomite 1.0 million tonnes.

### **Mineral developments**

In the South Australian portion of the Cooper/Eromanga basins petroleum province, located in the far north-east of the State, numerous oil and gas fields were on production at the beginning of 1991, in the area where petroleum was first found at Gidgealpa Field in 1962. Most fields now onstream have preliminary fluid treatment facilities plus a network of separate gas and oil flowlines and trunklines laid to bring all production in to the central Moomba treatment plant for final processing.

At Moomba, the incoming raw gas stream initially has water and carbon dioxide removed. Next, the liquids recovery plant extracts the valuable condensate and LPG from the gas stream. The resultant sales gas is then pipelined to Sydney and Adelaide markets. The separated gas liquids plus the stabilised crude oil from oil fields are finally put into the liquids pipeline leading to the fractionation plant at Port Bonython on Spencers Gulf.

SANTOS Ltd is the operator and principal partner in the production of Cooper Basin oil and gas, and acts as marketing agent for all Port Bonython crude oil. The other producers are Delhi Petroleum Pty Ltd, Bridge Oil Ltd, SAGASCO Resources Ltd, Crusader Ltd, Basin Oil NL, Comada Energy Ltd, Hartogen Energy Ltd and Vamgas Ltd (a subsidiary of SANTOS Ltd).

By the beginning of 1990 more than \$5.2 billion in petroleum sales revenue had been paid to the Cooper Basin producers since gas production commenced in 1969. Royalty payments to the South Australian Government from petroleum sales over the same period exceeded \$238 million.

Natural gas was discovered at Katnook in late 1987, approximately 10 kilometres south of Penola in the Otway Basin. A gas contract between the Pipelines Authority of South Australia (PASA) and the Petroleum Production Licence No. 62 licensees was signed in August 1990 to supply 1.5 petajoules of gas per year for 15 years. Gas production commenced on 15 February 1991.

Developments continued at the Olympic Dam mine with the announcement by the Joint Venturers that the mining project will be expanded at a cost of \$66 million. This second phase expansion is expected to be completed by the end of 1992 and will increase the production by 6,600 tonnes of copper, 1,400 tonnes of uranium oxide, 25,000 ounces of gold and 460,000 ounces of silver annually.

Mining of the newly developed Iron Duke deposit in the Middleback Ranges by BHP has commenced with a scheduled production of 1.5 million tonnes annually.

As future power generation in South Australia will require an increase in the use of coal, deposits at Lochiel, Sedan, Weedina, Kingston and Wintinna continue to be evaluated.

Private Mineral Exploration (Other than Petroleum)  
Expenditure by Type of Mineral Sought  
(\$ million)

<i>Type of mineral</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90(a)</i>
Copper, lead, zinc, silver, nickel, cobalt . . . . .	7.9	4.6	5.9
Gold . . . . .	5.0	5.4	1.2
Iron ore . . . . .	n.p.	0.2	0.2
Mineral sands . . . . .	0.5	n.p.	1.3
Tin, tungsten, scheelite, wolfram . . . . .	n.p.	n.p.	n.p.
Uranium . . . . .	2.0	1.2	n.p.
Other metallic (b) . . . . .	n.p.	0.1	0.3
Coal . . . . .	1.2	0.7	0.1
Construction materials (c) . . . . .	n.p.	-	-
Diamonds . . . . .	0.9	2.4	2.4
Other non-metallic (d) . . . . .	0.6	0.8	0.6
<i>Total</i> . . . . .	<i>18.9</i>	<i>16.6</i>	<i>13.0</i>

(a) Excludes details of mineral explorers reporting less than \$5,000 per quarter. (b) Includes precious metals other than gold and silver. (c) Comprises aggregate, sand, gravel and all stone used for construction purposes. (d) Includes gemstones other than diamonds.

The Department of Mines and Energy spent approximately \$21.4 million in 1990-91 on geological and other investigations, drilling and mineral research work to assist the State's mineral industry.

Details of private petroleum exploration and development for South Australia are shown in the following table for the years 1988 to 1990.

#### Private Petroleum Exploration and Development

<i>Particulars</i>	<i>Unit</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
<b>Wells drilled (a):</b>				
Exploration .....	No.	71	49	42
Development .....	No.	10	13	24
<b>Depth drilled:</b>				
Exploration .....	'000m	170.8	114.2	101.0
Development .....	'000m	27.1	27.5	47.5
<b>Expenditure:</b>				
Private sources;				
Exploration .....	\$'000	80,386	63,700	58,000
Development .....	\$'000	178,875	198,200	212,800

(a) Number of wells reaching total depth during year.

Source: Bureau of Mineral Resources, Geology and Geophysics.

## 12.2 ENERGY

### Energy resources

Although South Australia has a reasonably varied energy resource base, the State depends almost entirely on non-renewable fossil fuels for its energy needs. Details of these resources, namely coal, natural gas, liquid petroleum gas (LPG), crude oil and condensate and some others, are given below.

### Coal

South Australia has one operating coal mine, located 550 kilometres north of Adelaide at Leigh Creek. It is expected that coal mining will continue at Leigh Creek until the year 2025, supplying coal to both the present 240 megawatts (MW) Thomas Playford B Power Station and the adjoining new 2 x 250 MW Northern Power Station, as well as a planned third 250 MW unit.

During 1990-91 the Electricity Trust of South Australia used 2.6 million tonnes of Leigh Creek coal to meet 48 per cent of its total generation commitments. The bulk of the remaining requirements were met by natural gas with a small quantity of oil also used.

A significant quantity of high rank bituminous coal is imported into South Australia from the eastern States for the production of coke in the iron and steel industry at Whyalla, and also for use in the lead-zinc smelters at Port Pirie.

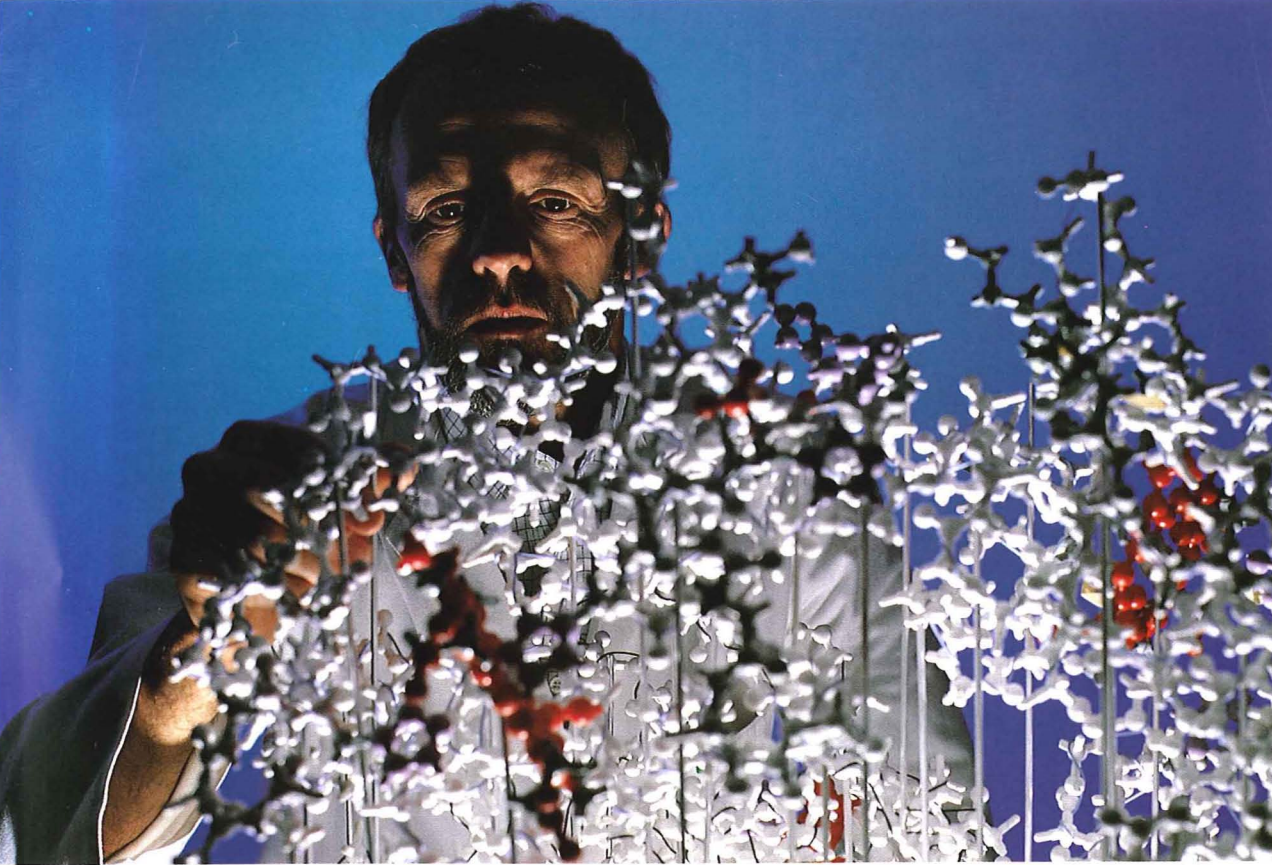
A number of longer term energy scenarios for the State have indicated that the proportion of electricity generated from coal may increase during the next century. To plan for this event the State has been examining the feasibility of using local low grade coals which are in abundant supply.

### Natural Gas

Over the last twenty years natural gas (largely methane) has become a vital part of South Australia's energy consumption pattern.

The State was one of the earliest users of natural gas in Australia with first supplies arriving in Adelaide from the Cooper Basin in November 1969. More than half this gas is presently consumed in electric power generation at the Electricity Trust of South Australia power stations at Torrens Island, Dry Creek and Mintaro. The Trust's use of natural gas provided the economic justification for the construction of the 790 kilometre pipeline needed to deliver the gas to Adelaide, Peterborough, Port Pirie, Mintaro and Angaston. The remainder is reticulated to homes, industry and commercial premises for





Analysing the structure of a protein molecule at the University of Adelaide.

*Department of Industry, Trade and Technology*

Sola International makes lenses and scientific optical instruments. The first American astronauts on the moon wore Sola CR39 sunglasses.







Technology Park at The Levels, north of Adelaide.

*Department of Industry, Trade and Technology*

Manufacture of electronic components for F/A 18 aircraft at the British Aerospace Australia facility at Salisbury.





Mineral testing at the Amdel Limited laboratory.

*Department of Industry, Trade and Technology*



Extensions to the container terminal at Outer Harbor, completed in May 1991, allows simultaneous work on two vessels.

*Department of Marine and Harbors*







Construction of submarine No. 1 at the Australian Submarine Corporation facility at Port Adelaide.

*Australian Submarine Corporation Pty Ltd*

Engine assembly at the Mitsubishi Motors Australia plant at Lonsdale, south of Adelaide.

*Mitsubishi Motors Australia Ltd*



use directly in heating and drying applications. In early 1989 the existing gas pipeline spur to Port Pirie township and smelters was extended across Spencer Gulf to supply Whyalla's blast furnace and the Port Bonython plant, plus local domestic users.

At the end of 1987, natural gas was discovered at Katnook No. 1, approximately 10 kilometres south-west of Penola in the Otway Basin. Although the initial proven gas discovery was small, further exploration and appraisal drilling carried out nearby at Ladbroke Grove No. 1 and Katnook No. 2 and No. 3 during 1989 and 1990, has indicated a gas reserve of sufficient size to supply the State's South East commercial and domestic users presently relying on electricity or fuel oil for their primary heating requirements.

In 1990 a 4.5 kilometre pipeline was built from Katnook eastwards to the Safries potato chip factory, and in early 1991 a 67 kilometre pipeline to the Apcel paper mill at Snuggery, with a spur line to Mount Gambier, was completed.

#### *Liquid petroleum gas (LPG)*

Recoverable LPG reserves in the Cooper Basin as of January 1991 are about 7.0 million tonnes. LPG (propane and butane) is recognised as an important substitute for petrol in South Australia. LPG is used in the production of synthetic natural gas, which is reticulated as town gas in Renmark and Roxby Downs.

The Cooper Basin producers have constructed an LPG storage and loading terminal at Port Bonython, near Whyalla, which is connected to the Moomba processing facilities by a liquids pipeline. The bulk of South Australia's LPG requirements are now supplied from this facility, although the Port Stanvac refinery will continue to supply small amounts to the local market. Sales of commercial LPG commenced in June 1984 with the first overseas exports taking place in August 1984.

#### *Crude oil and condensate*

Crude oil and condensate in this State currently satisfies about 43 per cent of energy demand. While Australia is better situated than many other countries in terms of having a local source of oil, in 1988-89 this State imported 68.0 per cent of its feedstock requirements from overseas.

Information provided by the South Australian Department of Mines and Energy indicates that discovered fields in the South Australian segment of the Cooper and Eromanga Basins contain 8.2 million kilolitres of recoverable crude oil and 7.6 million kilolitres of condensate (liquids recoverable from gas wells) at January 1991.

#### *Wood*

Approximately 2 per cent of this State's annual energy demand is met by wood. Its main use is in the domestic sector as a heating fuel, although some (largely wood waste) is used in industry, particularly in the forestry industry and for generating some electricity in the south-east of the State. Currently, most wood supplies come from the State's forestry areas in the South East and from the Riverland mallee scrub.

#### **Energy authorities and organisations**

In South Australia, there are several authorities and organisations concerned with the extraction, processing, distribution and monitoring of the State's energy resources *e.g.* the Pipelines Authority of South Australia and the South Australian Energy Council. Information about these bodies is contained in pages 384-6 of the *South Australian Year Book 1983*.

#### *Electricity*

The Electricity Trust of South Australia (ETSA), a public corporation, is responsible for electricity generation and distribution throughout most of the State. The Trust is an autonomous body, which reports to Parliament through the Minister of Mines and Energy. It is responsible for its own finances (including loan raising) and pays all normal State taxes such as payroll tax, land tax and local government rates.

There are seven power stations in South Australia controlled by ETSA. Torrens Island Power Station, with a generating capacity of 1,280 MW, is the largest, while the Northern Power Station, commissioned in 1985, has a generating capacity of 500 MW. The Electricity Trust's total capacity at 30 June 1991 was 2,350 MW.

To meet future demands, a third 250 MW unit at the Northern Power Station or its base load plant equivalent will be required some time after 1998.

The three-State interconnection linking South Australia to the Victoria/New South Wales power grid was first connected on 30 November 1989 and commenced commercial operation on 1 March 1990. The interconnection project provided the equivalent of 250 MW of peaking capacity through the sharing of reserves with Victoria and New South Wales. This allowed the retirement in March 1990 of the remaining plant at Osborne Power Station and will defer the need for extra capacity.

The Trust relies on natural gas as its main fuel with near 50 per cent of its total generation in 1990-91 coming from this source. Gas has been used at the Torrens Island Power Station since 1969, at the Dry Creek Power Station since 1973, and at Mintaro since 1984.

Leigh Creek coal is used exclusively in the Thomas Playford Power Station and the Northern Power Station at Port Augusta.

About 90 per cent of new housing subdivisions are underground mains areas. In these subdivisions 11 KV and low voltage lines are installed underground and developers pay a contribution towards ETSA's costs. The Electricity Trust and local government authorities share the costs of conversion schemes from overhead to underground reticulation in areas where aesthetic benefits to the general public are possible.

Electricity Trust of South Australia, Sales of Electricity  
(MWh)

<i>Particulars</i>	<i>1989</i>	<i>1990</i>	<i>1991</i>
Residential .....	2,961,526	3,110,809	3,131,080
Industrial .....	2,514,526	2,626,011	2,593,140
General purpose .....	1,752,535	1,867,065	1,937,601
Bulk supply .....	167,363	220,641	246,297
Public lighting .....	60,602	61,873	63,079
Pumping for major water pipelines .....	150,543	143,593	214,362
<i>Total</i> .....	<i>7,607,095</i>	<i>8,029,992</i>	<i>8,185,559</i>

At 30 June 1991 the Trust supplied 670,021 customers accounting for almost 99 per cent of all electricity customers in the State. The Trust supplies indirectly 1,550 customers through special tariffs. A further 1,500 customers are supplied by diesel plant operated by the District Council of Coober Pedy and 1,300 customers by diesel and gas plant operated by the District Council of Peterborough. There are a further 17 small towns and isolated outback communities equipped with diesel generating plant and supplying 850 customers.

### Gas

The South Australian Gas Company, was a privately owned company incorporated and regulated by an 1861 Act of Parliament 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. Gas was first produced at Port Pirie in 1892.

In June 1988 the Gas Company merged with the Government owned South Australian Oil and Gas Corporation (SAOG) to form a new company, SAGASCO Holdings Ltd. The utility is now known as South Australian Gas Company Limited and SAOG has been renamed SAGASCO Resources Ltd. A new company, SAGASCO LPG Pty Ltd was formed to control the LPG portion of the business.

Since the 1950s a considerable expansion of the distribution system has taken place. This is evident from the following table which gives details of number of consumers and length of mains at 30 June in selected years.

South Australian Gas Company Limited, Consumers and Mains

<i>Particulars</i>	<i>At 30 June</i>				
	<i>1950</i>	<i>1960</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>
Number of consumers (a) . . . .	84,629	121,720	186,670	250,545	317,123
Length of mains (km) . . . . .	1,677	2,525	3,603	4,967	5,890

(a) Includes 38,000 consumers of bottled gas.

Natural gas from the Cooper Basin became available in 1969. By 1971, all appliances in the Adelaide metropolitan area had been converted to natural gas, and all coal carbonising and carburetted water gas making plants were shut down.

Natural gas is reticulated through most of the Adelaide metropolitan area, as well as Port Pirie (since 1976), Angaston (since 1983), Peterborough (since 1987), Whyalla (since 1988) and Mount Gambier (since 1991). Liquefied petroleum gas (LPG) is reticulated to consumers in Roxby Downs and Renmark.

The Gas Company places great emphasis on promoting natural gas with both the domestic and commercial/industrial markets as a cheap and non-polluting fuel.

## Chapter 13

# COMMERCE

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### 13.1 INTERNAL TRADE

#### Retail trade

One of the prime sources of statistics on the retail industry is the Retail Census. The latest Retail Census was conducted for the year ended 30 June 1986. Details from that Census were included on pages 223–4 of the *South Australian Year Book 1991*. The next Retail Census is expected to be conducted for the year ended 30 June 1992.

#### Surveys of retail establishments

Estimates of the value of turnover of retail establishments are calculated from monthly returns received from a sample of retail and selected service establishments.

This survey uses as its sampling frame the ABS register of businesses which is regularly updated to take account of new businesses and businesses ceasing operation. Following the review of updating procedures and the analysis of previously omitted businesses the series has been revised back to April 1982.

The following table shows the estimates of the value of turnover of retail and selected service establishments at current prices by industry for the years 1988–89 to 1990–91.

Turnover of Retail Establishments at Current Prices by Industry  
(\$ million)

Industry	1988–89	1989–90	1990–91
Grocers, confectioners, tobacconists . . . .	1,896.9	1,985.8	2,191.2
Butchers . . . . .	155.7	169.7	182.0
Other food stores . . . . .	446.1	480.1	539.9
Hotels, liquor stores, licensed clubs . . . . .	770.5	775.0	768.4
Cafes and restaurants . . . . .	295.6	298.9	313.4
Clothing and fabric stores . . . . .	406.7	453.3	461.2
Department and general stores . . . . .	963.6	1,032.2	1,060.0
Footwear stores . . . . .	82.2	90.9	101.8
Domestic hardware stores, jewellers . . . . .	147.2	182.7	173.2
Electrical goods stores . . . . .	432.1	419.9	432.6
Furniture stores . . . . .	176.4	181.1	173.2
Floor coverings stores . . . . .	54.5	66.6	63.4
Pharmacies . . . . .	206.8	238.7	305.3
Newsagents . . . . .	143.8	157.6	166.8
Other stores (a) . . . . .	280.1	297.2	344.4
<i>Total</i> . . . . .	<i>6,458.4</i>	<i>6,829.4</i>	<i>7,276.3</i>

(a) Includes photographic stores, sports and toy stores, secondhand goods dealers, nurserymen and florists, retailers n.e.c. and hairdressers and beauty salons.



**Service industries**

The 1986-87 Service Industries Survey covered ten personal and travel related industries. Seven of these were also part of the 1979-80 Census of Retail and Selected Services Industries, therefore allowing some comparisons between the two periods. (These industries are motion picture theatres, cafes and restaurants, hotels (mainly drinking places), accommodation, licensed clubs, laundries and dry cleaners, and hairdressers and beauty salons.) Data for motor vehicle hire, travel agency services and photography services have been collected for the first time.

The 1987-88 Service Industries Survey covered twelve professional and business related industries. The industries included had not previously been surveyed in this detail by ABS so there are no earlier statistics available to which they can be compared.

A brief summary of details of the 1986-87 and 1987-88 Surveys was included on pages 225-6 of the *South Australian Year Book 1991*.

**Interstate trade**

Although a wide range of statistics of production, domestic sales and overseas trade in goods has been prepared for many years, knowledge of trading patterns in the South Australian economy was deficient because of the absence of statistics of the interstate trade in this State. Surveys of interstate trade in merchandise were undertaken for the years ended 30 June 1979, 1982, 1985 and 1988.

A brief summary of results from the 1987-88 survey was included on page 226 of the *South Australian Year Book 1991*.

**Tourism**

The ABS introduced a series of tourist accommodation surveys in September quarter 1975 to provide an indication of the utilisation of accommodation available by measuring occupancy rates. The surveys calculate occupancy rates as the proportion of guest rooms, sites or units occupied to the number of rooms, sites or units available for accommodating paying guests.

Establishments in the surveys are grouped into four 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; caravan parks with powered sites for caravans, and toilet, shower and laundry facilities available for guests; and self-contained holiday flats, units and houses. Caravan parks were included in the surveys from the September quarter 1977. Excluded at that time were licensed hotels, private hotels and guest-houses without facilities.

Up to the June quarter 1986 the surveys included establishments providing accommodation predominantly to short-term guests (*i.e.* guests staying for periods of less than 2 months).

Commencing with the September quarter 1986 the surveys also included caravan parks which are predominantly occupied by long-term guests.

A new survey was introduced in the September quarter 1987 when holiday flats and serviced apartments providing self-catering facilities were included. Establishments comprising at least 5 units providing short-term accommodation are surveyed.

The number of establishments identified in the survey is determined by the nature of the services and facilities provided, and 128 licensed hotels with facilities, 248 motels, 171 short-term caravan parks, 34 long-term caravan parks and 82 letting entities (with letting rights to at least 5 flats, units or houses) were included in the March quarter 1991.

## Tourist Accommodation Survey

Particulars	Unit	Quarter			
		June 1990	Sept. 1990	Dec. 1990	Mar. 1991
<b>LICENSED HOTELS WITH FACILITIES</b>					
Establishments at end of quarter . . . . .	Number	129	129	129	128
Guest rooms . . . . .	Number	4,235	4,238	4,413	4,376
Room occupancy rate . . . . .	Per cent	43.4	43.7	45.9	44.2
Takings . . . . .	\$'000	13,111	12,724	16,363	14,379
<b>MOTELS ETC. WITH FACILITIES</b>					
Establishments at end of quarter . . . . .	Number	243	241	249	248
Guest rooms . . . . .	Number	6,081	6,085	6,130	6,115
Room occupancy rate . . . . .	Per cent	52.6	50.3	51.6	52.4
Takings . . . . .	\$'000	17,556	17,422	19,014	18,313
<b>SHORT-TERM CARAVAN PARKS</b>					
Establishments at end of quarter . . . . .	Number	175	172	172	171
Sites (a) . . . . .	Number	19,847	19,315	19,872	19,925
Site occupancy rate . . . . .	Per cent	17.6	13.4	17.1	24.5
Takings . . . . .	\$'000	4,257	3,487	4,542	6,055
<b>LONG-TERM CARAVAN PARKS</b>					
Establishments at end of quarter . . . . .	Number	35	34	34	34
Sites (a) . . . . .	Number	3,495	3,997	4,005	3,968
Site occupancy rate . . . . .	Per cent	44.6	40.0	43.3	44.4
Takings . . . . .	\$'000	1,168	1,207	1,333	1,439
<b>HOLIDAY FLATS, UNITS AND HOUSES</b>					
Letting entities . . . . .	Number	79	79	81	82
Flats, units etc. . . . .	Number	1,113	1,125	1,178	1,233
Unit occupancy rate . . . . .	Per cent	45.4	39.7	44.3	55.2
Takings . . . . .	\$'000	2,301	2,245	2,771	3,312

(a) Includes on-site vans, other powered sites, unpowered sites and cabins, flats etc.

## Tourist Accommodation by Statistical Division and Subdivision, 1989-90

Statistical Division and Subdivision	Licensed hotels, motels etc. with facilities			Short-term caravan parks		
	Establishments at 30 June 1990	Guest rooms at 30 June 1990	Average room occupancy rate 1989-90	Establishments at 30 June 1990	Sites at 30 June 1990	Average site occupancy rate 1989-90
	number	number	per cent	number	number	per cent
Northern . . . . .	23	431	45.8 )			
Western . . . . .	17	342	53.5 )	5	1,090	48.2
Eastern . . . . .	58	3,646	60.0 )			
Southern . . . . .	28	727	53.5 )	8	756	37.1
<i>Adelaide</i> . . . . .	<i>126</i>	<i>5,146</i>	<i>57.4</i>	<i>13</i>	<i>1,846</i>	<i>43.8</i>
Barossa . . . . .	21	290	46.8 )			
Kangaroo Island . . . . .	12	241	41.9 )	10	1,190	16.5
Onkaparinga . . . . .	4	109	48.3 )			
Fleurieu . . . . .	19	395	45.6 )	15	2,417	14.5
<i>Outer Adelaide</i> . . . . .	<i>56</i>	<i>1,035</i>	<i>45.4</i>	<i>25</i>	<i>3,607</i>	<i>15.2</i>
Yorke . . . . .	16	232	39.4	23	2,417	18.9
Lower North . . . . .	11	128	52.0	8	458	21.5
<i>Yorke and Lower North</i>	<i>27</i>	<i>360</i>	<i>43.9</i>	<i>31</i>	<i>2,875</i>	<i>19.2</i>

**Tourist Accommodation by Statistical Division and  
Subdivision, 1989-90 (continued)**

Statistical Division and Subdivision	Licensed hotels, motels etc. with facilities			Short-term caravan parks		
	Establish- ments at 30 June 1990	Guest rooms at 30 June 1990	Average room occu- pancy rate 1989-90	Establish- ments at 30 June 1990	Sites at 30 June 1990	Average site occupancy rate for 1989-90
	number	number	per cent	number	number	per cent
Riverland .....	20	590	45.1	12	1,792	20.7
Murray Mallee .....	16	226	40.2	15	1,276	9.2
<i>Murray Lands</i> .....	36	816	43.7	27	3,068	16.2
Upper South East ...	21	392	47.4	9	1,016	13.4
Lower South East ...	32	716	50.0	12	1,561	11.1
<i>South East</i> .....	53	1,108	49.1	21	2,577	12.1
Lincoln .....	22	351	42.9	13	1,506	14.1
West Coast .....	8	246	48.8	9	1,056	17.0
<i>Eyre</i> .....	30	597	45.4	22	2,562	15.3
Whyalla .....	12	306	48.1 )	11	1,167	15.2
Far North .....	9	349	44.0 )			
Pirie .....	7	133	62.0	10	633	13.3
Flinders Ranges ....	16	466	51.7	15	1,512	17.4
<i>Northern</i> .....	44	1,254	49.8	36	3,312	16.0
<b>South Australia ...</b>	<b>372</b>	<b>10,316</b>	<b>52.0</b>	<b>175</b>	<b>19,847</b>	<b>18.4</b>

**Tourist Accommodation: Details by Size of Establishment  
March Quarter 1991**

Particulars	Unit	Size of establishment (number of rooms)					Total
		1-9	10-15	16-25	26-50	51 & over	
<b>LICENSED HOTELS WITH FACILITIES</b>							
Establishments .....	Number	35	33	18	26	16	128
Guest rooms .....	Number	235	389	353	864	2,535	4,376
Room occupancy rate ..	Per cent	30.7	39.5	35.2	42.4	48.0	44.2
Takings .....	\$'000	239	475	384	1,990	11,291	14,379
<b>MOTELS ETC. WITH FACILITIES</b>							
Establishments .....	Number	52	52	52	73	19	248
Guest rooms .....	Number	294	645	1,075	2,677	1,424	6,115
Room occupancy rate ..	Per cent	36.3	47.3	51.7	53.7	56.2	52.4
Takings .....	\$'000	575	1,389	2,723	8,115	5,511	18,313
Particulars	Unit	Size of establishment (number of sites)					Total
		1-50	51-100	101-200	201-300	301 and over	
<b>SHORT-TERM CARAVAN PARKS</b>							
Establishments .....	Number	38	56	55	13	9	171
Sites .....	Number	1,387	4,167	7,449	3,203	3,719	19,925
Site occupancy rate ..	Per cent	12.1	21.9	26.1	28.7	25.1	24.5
Takings .....	\$'000	188	1,088	2,616	1,057	1,106	6,055
<b>LONG-TERM CARAVAN PARKS</b>							
Establishments .....	Number	9	8	13		4	34
Sites .....	Number	312	685	1,799		1,172	3,968
Site occupancy rate ..	Per cent	36.8	46.0	55.3		28.9	44.4
Takings .....	\$'000	116	272	736		315	1,439

**Further references**

Additional information may be found in the following ABS publications:

- 8501.0 *Retail Trade, Australia* (Monthly)
- 8502.4 *Interstate Trade, South Australia*
- 8622.4 *Retail Census, Details of Operations, South Australia, 1985-86*
- 8623.4 *Retail Census, Small Area Statistics, South Australia, 1985-86*
- 8626.4 *Retail Census, Establishment Size Statistics, South Australia, 1985-86*
- 8635.0 *Tourist Accommodation, Australia* (Quarterly)
- 8635.4 *Tourist Accommodation, South Australia* (Quarterly)
- 3401.0 *Overseas Arrivals and Departures, Australia* (Monthly)
- 3402.0 *Overseas Arrivals and Departures, Australia* (Quarterly)

**13.2 FOREIGN TRADE****Administration**

Under the Constitution of Australia, the Commonwealth Parliament is responsible for legislation relating to trade and commerce with other countries. Matters relating to trade and commerce are dealt with by these Commonwealth Government Departments.

The Department of Foreign Affairs and Trade is responsible for developing and maintaining Australia's position as a world trading nation through international trade and commodity commitments and agreements, developing export markets, and formulating proposals for the Government on Australia's international trade policy and trading objectives. It is also responsible for matters related to the commercial development, marketing, and export of minerals and fuels. It has Trade Commissioners at various overseas centres.

The Department of Industry, Technology and Commerce cooperates with the Department of Foreign Affairs and Trade in international tariff negotiations and the Australian system of tariff preferences for developing countries. The Department is also responsible for the collection of customs and excise duties and for the detailed administration of various controls over the import and export of goods through the Australian Customs Service.

The Department of Primary Industry and Energy administers Commonwealth policy relating to production and marketing arrangements for primary products. It cooperates with the Department of Foreign Affairs and Trade in the negotiation of international trade and commodity agreements, in participation in international conferences, and in the administration of provisions relating to primary products in existing international agreements. The Department is responsible for the inspection, grading, and labelling of primary produce submitted for export.

The State Government is represented overseas by South Australia's Agent-General in London whose functions are to foster Australian trade, investment and tourism from the United Kingdom and Western Europe. Other agencies with similar responsibilities are in Hong Kong, Singapore and Tokyo.

**Recording method**

Foreign trade statistics are compiled by the Australian Bureau of Statistics from documentation submitted by exporters and importers, or their agents, to the Australian Customs Service as required by the Customs Act.

**Exports**

From 1 July 1978 the ABS changed the basis of recording State details in Australian export statistics from 'State of Lodgment' (of export documents) to 'State of Origin' (of exported goods). State of origin is defined as the State in which the final stage of production or manufacture occurs. Statistics in the following export tables are on a 'State of Origin' basis, and caution should be exercised when making comparisons with earlier periods.

A 'State of Loading' recording base has simultaneously been developed by ABS. The table on pages 228-9 shows for comparative purposes, South Australian exports (principal commodity groups) by both 'State of Loading' and by 'State of Origin'.

### *Imports*

Imports continue to be collected and published on a 'State of Lodgment of Import Documents' basis and there is no break in the series. 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, more commonly, some goods imported through other States pass into South Australia.

### **Valuation**

#### *Exports*

Goods actually sold to overseas buyers before shipment are valued at the free-on-board (f.o.b.) (*i.e.* the charges and expenses involved in delivering the goods are excluded) Australian port of shipment equivalent of the actual price at which the goods were sold. Goods shipped on consignment are valued at the f.o.b. Australian port of shipment equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods are dispatched for sale. The recorded value of exports includes the value of the outside package, other than international containers used for containerised cargo. Exporters who do not know the value of the goods at shipment and enter an appropriate value must subsequently submit an entry either confirming or revising the estimated return.

#### *Imports*

The recorded value of imports is the Customs value (formerly referred to as the value for duty). On 30 November 1981, Australia changed its system of valuation from the Brussels Definition of Value (BDV) to the GATT Agreement on Customs Valuation. The Agreement reflects one of a number of trade related codes of conduct established during the round of Multilateral Trade Negotiations (MTN) concluded in 1979.

Under the Agreement the primary basis for establishing the Customs value is the price actually paid or payable, provided a number of conditions are met. The most important condition is that the buyer and seller must be independent of each other. If the conditions are not met the GATT Agreement offers a set of practical rules to determine the Customs value.

The recording of the value of imports remains on a free-on-board (f.o.b.) basis. The recorded value also continues to include the value of the outside package, other than international containers used for containerised cargo.

#### **Exports**

The total value of exports of South Australian origin during 1989-90 was \$2,841.2 million.

This value is 16.1 per cent higher than 1988-89. The increase over the value of exports ten years ago was 165 per cent, while the increase in the Australian Export Price Index over the same period was 97 per cent, thus there has been an appreciable increase in South Australian foreign exports in real terms over this period.

Wheat and wool remained South Australia's most valuable export commodities during 1989-90. The income from exports of wine, petroleum products and road vehicles continues to improve, as illustrated in the following table.

## Overseas Exports from South Australia, Principal Commodities

<i>Commodity</i>	1987-88	1988-89	1989-90
QUANTITY			
Beef, veal, lamb and mutton (tonnes) . . . . .	62,931	56,799	80,463
Crustaceans, molluscs and aquatic invertebrates (tonnes) . .	5,880	4,622	4,590
Wheat (tonnes) . . . . .	1,877,100	1,358,751	2,822,554
Barley (tonnes) . . . . .	868,678	934,153	1,447,445
Malt for brewing (tonnes) . . . . .	94,028	124,650	126,429
Wine of fresh grapes (incl. fortified) ('000 litres) . . . . .	28,562	28,656	25,493
Wool (a): Greasy (tonnes) . . . . .	67,642	55,884	43,433
Other (tonnes) . . . . .	4,769	4,918	5,955
Crude petroleum (incl. condensate) ('000 litres) . . . . .	48,678	241,648	743,693
Fuel oil ('000 litres) . . . . .	253,790	340,805	170,862
Lubricating petroleum oils ('000 litres) . . . . .	134,788	182,606	168,492
Iron and steel blooms, billets etc. (tonnes) . . . . .	271,598	176,891	266,641
Refined copper and copper alloys, unwrought (tonnes) . . . . .	—	10,764	35,161
Lead and lead alloys, unworked (tonnes) . . . . .	102,307	142,066	95,134
VALUE (\$'000)			
Beef, veal, lamb and mutton . . . . .	170,590	155,890	214,673
Crustaceans, molluscs and aquatic invertebrates . . . . .	134,670	91,043	96,584
Wheat . . . . .	280,582	273,765	431,973
Barley . . . . .	102,454	132,080	243,458
Malt for brewing . . . . .	26,260	37,814	48,475
Wine of fresh grapes (incl. fortified) . . . . .	56,180	70,362	70,486
Wool (a): Greasy . . . . .	339,621	353,466	228,611
Other . . . . .	37,993	41,391	42,676
Crude petroleum (incl. condensate) . . . . .	7,870	40,066	117,926
Fuel oil . . . . .	42,634	63,185	31,745
Lubricating petroleum oils . . . . .	63,866	70,976	52,684
Iron and steel blooms, billets, slabs etc. . . . .	63,660	44,141	86,985
Refined copper and copper alloys, unwrought . . . . .	2	42,012	117,756
Lead and lead alloys, unworked . . . . .	94,222	115,793	92,749
Road vehicles, parts and accessories . . . . .	92,901	120,659	162,528

(a) Wool of sheep and lambs, excluding wool tops.

Overseas Exports from South Australia, Principal  
Commodity Groups  
(\$'000)

<i>Commodity group</i>	1987-88	1988-89	1989-90
Food and live animals:			
Live animals other than fish . . . . .	64,933	74,814	24,883
Meat and meat preparations . . . . .	195,919	179,653	241,118
Fish and fish preparations . . . . .	138,107	93,752	108,053
Cereals and cereal preparations . . . . .	418,564	466,503	742,999
Vegetables and fruit . . . . .	75,222	63,626	76,293
Other . . . . .	39,413	39,638	36,011
Beverages and tobacco . . . . .	57,577	72,184	72,889
Crude materials, inedible (except fuels):			
Textile fibres and their wastes . . . . .	378,093	395,126	271,312
Metalliferous ores and metal scrap . . . . .	24,876	56,641	42,865
Other . . . . .	42,233	38,554	49,490
Mineral fuels, lubricants and related materials . . . . .	130,149	194,145	215,688
Animal and vegetable oils, fats and waxes . . . . .	3,997	6,415	5,504
Chemicals and related products n.e.c.:			
Medicinal and pharmaceutical products . . . . .	12,583	10,704	12,688
Other . . . . .	9,825	12,081	19,454

Overseas Exports from South Australia, Principal  
Commodity Groups (*continued*)  
(\$'000)

<i>Commodity group</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Manufactured goods classified chiefly by material:			
Iron and steel .....	88,295	58,811	94,026
Non-ferrous metals .....	164,944	185,906	243,564
Other .....	47,713	64,741	78,535
Machinery and transport equipment:			
Power generating machinery and equipment ...	10,434	25,059	28,927
Machinery specialised for particular industries .	22,909	28,643	21,958
Electrical machinery, appliances and parts .....	31,029	31,022	39,126
Transport equipment .....	99,577	124,955	167,217
Other .....	20,338	16,627	24,742
Miscellaneous manufactured articles:			
Professional and scientific instruments; photographic and optical goods; clocks .....	19,315	33,946	31,340
Other .....	19,409	25,610	28,499
Commodities and transactions n.e.c. (a) .....	147,906	147,676	164,110
<i>Total</i> .....	<i>2,263,360</i>	<i>2,446,832</i>	<i>2,841,290</i>

(a) Includes items deemed confidential.

Liquefied petroleum gas (LPG) is a principal export commodity, but because of confidentiality restrictions, no details are available at the State level.

Although exports of manufactured goods have generally been increasing, the bulk of exports is still of goods usually classified as primary products. In 1989-90 the 'Food and live animals' group accounted for \$1,302.2 million or 45.8 per cent, and the 'Crude materials, inedible' group accounted for \$363.7 million or 12.8 per cent of exports (including wool \$271.2 million, 9.5 per cent).

Overseas Exports from South Australia, Principal Countries  
(\$'000)

<i>Country of consignment</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Canada .....	26,299	48,943	34,329
China .....	83,074	50,558	84,724
France .....	55,889	51,279	38,342
Germany, Federal Republic of .....	35,337	52,594	95,716
Hong Kong .....	33,832	65,877	52,885
India .....	75,345	58,846	50,819
Indonesia .....	27,813	24,808	82,081
Iran .....	95,774	110,576	197,351
Iraq .....	16,472	5,898	51,629
Italy .....	46,886	52,162	47,014
Japan .....	393,189	384,165	353,148
Korea, Republic of .....	41,759	59,220	55,495
Malaysia .....	31,738	48,399	51,770
Netherlands .....	16,944	19,222	34,252
New Zealand .....	165,197	228,377	293,885
Oman .....	24,626	31,553	38,582
Philippines .....	20,977	25,509	30,908
Saudi Arabia .....	75,167	92,681	136,236
Singapore .....	89,344	109,472	85,634
Taiwan .....	64,774	77,848	99,353
United Arab Emirates .....	43,732	79,734	67,785
United Kingdom .....	94,039	108,013	118,295
United States of America .....	215,572	171,774	238,843
USSR .....	83,946	136,926	72,361
Other .....	405,635	352,398	429,853
<i>Total</i> .....	<i>2,263,360</i>	<i>2,446,832</i>	<i>2,841,290</i>

Overseas Exports : South Australia to Principal Countries  
Commodity Groups, 1989-90  
(\$'000)

Commodity group	Japan	New Zealand	USA	Iran	Total (a)
<b>Food and live animals:</b>					
Live animals other than fish .....	-	89	31	-	24,883
Meat and meat preparations .....	46,021	759	90,855	-	241,118
Fish and fish preparations .....	56,606	313	25,308	-	108,053
Cereals and cereal preparations .....	35,038	36,630	-	113,067	742,999
Vegetables and fruit .....	3,601	8,705	1,680	584	76,293
Other .....	8,022	2,904	3,319	-	36,011
Beverages and tobacco .....	3,916	10,230	8,980	-	72,889
<b>Crude materials, inedible (except fuels):</b>					
Textile fibres and their wastes .....	28,480	32	3,029	226	271,312
Metalliferous ores and metal scrap .....	12,168	720	8,094	-	42,865
Other .....	6,092	2,335	1,555	-	49,490
Mineral fuels, lubricants and related materials .....	21,386	38,995	26,234	-	215,688
Animal and vegetable oils, fats and waxes .....	113	-	-	-	5,504
<b>Chemicals and related products n.e.c.:</b>					
Medicinal and pharmaceutical products .....	9	709	3,029	-	12,688
Other .....	71	5,002	801	-	19,454
<b>Manufactured goods classified by material:</b>					
Iron and steel .....	1,302	1,271	291	74,224	94,026
Non-ferrous metals .....	20,511	2,474	2	8,516	243,564
Other .....	11,699	20,559	15,373	-	78,535
<b>Machinery and transport equipment:</b>					
Power generating machinery and equipment .....	18,812	2,005	258	-	28,927
Machinery specialised for particular industries ..	129	1,987	3,864	-	21,958
Electrical machinery, apparatus, appliances and parts .....	153	11,907	2,999	-	39,126
Transport equipment .....	4,719	123,608	21,573	-	167,217
Other .....	872	3,233	2,351	-	24,742
<b>Miscellaneous manufactured articles:</b>					
Professional and scientific instruments; photographic and optical goods; clocks .....	1,075	2,130	7,091	179	31,340
Other .....	1,063	14,800	3,544	-	28,499
Commodities and transactions n.e.c. (b) .....	71,288	2,487	8,580	555	164,110
<i>Total</i> .....	<i>353,148</i>	<i>293,885</i>	<i>238,843</i>	<i>197,351</i>	<i>2,841,290</i>

(a) To all countries. (b) Includes items deemed confidential.

These tables show the value of exports to principal countries. Japan replaced the United Kingdom as South Australia's principal export market in 1966-67 and retained that position until 1978-79. For the next three years USSR was the principal export market, but from 1982-83 Japan is once again the country of consignment with the highest value of exports. In 1989-90 exports to Japan comprised 12.4 per cent of the total.

### Exports of wheat

In 1989-90, 2.82 million tonnes of South Australian wheat was exported overseas. The unit price of \$153 per tonne was an improvement on the extremely low price of \$149 per tonne in the years 1986-87 and 1987-88, however it is low compared with the 1985-86 unit price of \$193 per tonne.

The value of wheat exported in 1989-90 was \$432.0 million, the main countries of consignment being Iran, Iraq, Egypt and New Zealand.



Overseas Exports of Wheat from South Australia  
(\$'000)

<i>Country of consignment</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Bangladesh .....	4,665	2,025	11,700
China .....	28,524	22,051	32,138
Egypt .....	27,947	12,603	45,013
Iran .....	63,171	64,714	113,067
Iraq .....	15,329	-	51,525
Malaysia .....	-	17,359	4,555
New Zealand .....	9,733	14,923	33,627
Oman .....	13,005	25,213	30,909
Pakistan .....	3,582	-	7,660
Qatar .....	6,794	6,682	5,771
Saudi Arabia .....	-	-	5,576
Singapore .....	-	-	8,136
United Arab Emirates .....	20,133	57,013	43,112
Yemen, Arab Republic of .....	18,014	11,065	9,629
Yemen, People's Democratic Republic of .....	33,373	21,580	17,774
Other .....	36,312	18,538	11,781
<i>Total</i> .....	<i>280,582</i>	<i>273,765</i>	<i>431,973</i>

*Exports of wool*

In 1989-90 the major export markets for South Australian wool were USSR (\$58.6 million, 21.6 per cent), the Federal Republic of Germany (\$31.9 million, 11.8 per cent), Japan (\$28.4 million, 10.5 per cent) and Italy (\$22.9 million, 8.4 per cent).

Overseas Exports of Wool <sup>(a)</sup> from South Australia  
(\$'000)

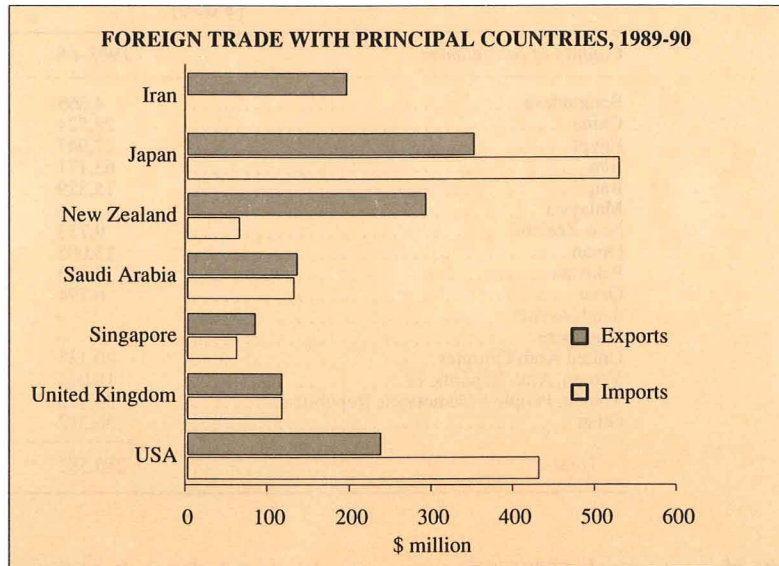
<i>Country of consignment</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
China .....	36,366	7,521	10,523
France .....	28,501	31,330	18,242
Germany, Federal Republic of .....	16,284	18,377	31,969
India .....	22,431	9,911	6,887
Italy .....	20,524	30,111	22,923
Japan .....	66,598	53,990	28,480
Korea, Republic of .....	9,325	15,017	12,820
Malaysia .....	9,788	7,143	8,019
Netherlands .....	1,193	1,986	8,754
Taiwan .....	8,693	6,248	7,333
United Kingdom .....	9,890	8,820	6,768
USSR .....	74,443	129,970	58,681
Other .....	74,029	74,701	49,888
<i>Total</i> .....	<i>378,065</i>	<i>395,125</i>	<i>271,287</i>

(a) SITC 268. Wool and other animal hair (includes wool tops from 1 January 1988).

*Value of exports*

The following table shows a comparison between the two methods of compiling State export statistics (refer to explanatory notes on pages 222-3). The net increases, within certain limitations, represent the excess of the value of South Australian produced commodities which are shipped for overseas export through ports in other States (principally the Port of Melbourne), over commodities produced in other States which are shipped through South Australian ports.

The value of commodities of South Australian origin loaded for export in ports in other States is as follows - New South Wales, \$66.4 million; Victoria, \$889.0 million; Queensland, \$18.0 million; Western Australia, \$16.3 million; Northern Territory \$73.0 million; total \$1,062.7 million.



**Overseas Exports from South Australia : Principal  
Commodity Groups, 1989-90  
(\$'000)**

<i>Commodity group</i>	<i>State of origin - SA</i>	<i>State of loading - SA</i>	<i>Net difference</i>
<b>Food and live animals:</b>			
Live animals other than fish .....	24,883	23,494	1,389
Meat and meat preparations .....	241,118	69,718	171,400
Fish and fish preparations .....	108,053	49,481	58,572
Cereals and cereal preparations .....	742,999	686,385	56,614
Vegetables and fruit .....	76,293	49,933	26,360
Other .....	36,011	21,148	14,863
Beverages and tobacco .....	72,889	20,540	52,349
<b>Crude materials, inedible (except fuels):</b>			
Textile fibres and their wastes .....	271,312	149,173	122,139
Metalliferous ores and metal scrap .....	42,865	190,277	-147,412
Other .....	49,490	18,820	30,670
Mineral fuels, lubricants and related materials ...	215,688	139,162	76,526
Animal and vegetable oils, fats and waxes .....	5,504	4,787	717
<b>Chemicals and related products n.e.c.:</b>			
Medicinal and pharmaceutical products .....	12,688	6,433	6,255
Other .....	19,454	10,354	9,100
<b>Manufactured goods classified chiefly by material:</b>			
Iron and steel .....	94,026	92,430	1,596
Non-ferrous metals .....	243,564	203,754	39,810
Other .....	78,535	35,337	43,198
<b>Machinery and transport equipment:</b>			
Power generating machinery and equipment ...	28,927	19,275	9,652
Machinery specialised for particular industries .	21,958	7,503	14,455
Electrical machinery, apparatus, appliances and parts .....	39,126	13,469	25,657
Transport equipment .....	167,217	57,704	109,513
Other .....	24,742	8,132	16,610

Overseas Exports from South Australia : Principal  
Commodity Groups, 1989-90 (continued)  
(\$'000)

Commodity group	State of origin - SA	State of loading - SA	Net difference
Miscellaneous manufactured articles:			
Professional and scientific instruments;			
photographic and optical goods; clocks . . . . .	31,340	10,150	21,190
Other . . . . .	28,499	11,425	17,074
Commodities and transactions n.e.c. (a) . . . . .	164,110	126,508	37,602
Re-exports . . . . .	-	7,014	-7,014
<i>Total</i> . . . . .	<i>2,841,290</i>	<i>2,032,406</i>	<i>808,884</i>

(a) Includes items deemed confidential.

## Imports

The total value of overseas imports passing through Customs recording points in South Australia during 1989-90 was \$2,050.0 million, \$188.6 million more than in 1988-89.

The proportions of imports obtained from the major sources have changed considerably in the years since the 1939-45 War *e.g.* in 1953-54 Japan supplied only 0.5 per cent of the total value of imports into South Australia but in 1989-90 accounted for 25.9 per cent; the United Kingdom which supplied over half the imports in 1953-54 accounted for only 5.8 per cent in 1989-90. Japan was the major source of imports into South Australia in 1989-90 with \$530.2 million, the USA (\$423.3 million) and Saudi Arabia (\$132.4 million) were the second and third largest sources of imports.

The following table shows the overseas imports to South Australia by principal commodity groups.

Overseas Imports to South Australia, Principal Commodity Groups  
(\$'000)

Commodity group	1987-88	1988-89	1989-90
Food and live animals:			
Fish and fish preparations . . . . .	15,518	15,149	17,176
Other . . . . .	26,505	34,244	37,804
Beverages and tobacco . . . . .	10,922	11,058	16,816
Crude materials, inedible (except fuels):			
Cork and wood . . . . .	26,825	35,533	37,972
Crude fertilisers and crude minerals . . . . .	18,720	31,546	21,359
Other . . . . .	43,271	33,130	30,785
Mineral fuels, lubricants and related materials . . . . .	157,523	173,189	205,115
Animal and vegetable oils, fats and waxes . . . . .	1,075	1,964	2,387
Chemicals and related products n.e.c.			
Organic chemicals . . . . .	17,861	21,428	23,871
Fertilisers (excl. crude) . . . . .	31,634	40,531	44,516
Plastics in non-primary forms . . . . .	19,931	16,780	19,520
Other . . . . .	52,215	61,494	75,734
Manufactured goods classified chiefly by material:			
Rubber manufactures n.e.c. . . . .	35,720	40,848	44,645
Cork and wood manufactures (excl. furniture) . . . . .	36,748	33,271	30,618
Paper, paperboard and manufactures thereof . . . . .	45,544	49,582	54,984
Textile yarn, fabrics and made-up articles . . . . .	54,802	47,603	49,241
Non-metallic mineral manufactures n.e.c. . . . .	34,267	39,843	46,084
Iron and steel . . . . .	78,650	82,472	80,296
Manufactures of metal n.e.c. . . . .	72,352	43,076	52,350
Other . . . . .	11,267	11,660	11,305

Overseas Imports to South Australia, Principal Commodity Groups (*continued*)  
(\$'000)

<i>Commodity group</i>	1987-88	1988-89	1989-90
<b>Machinery and transport equipment:</b>			
Power generating machinery and equipment . . .	213,389	44,403	45,185
Machinery specialised for particular industries . .	140,717	82,431	107,906
Metalworking machinery . . . . .	21,286	19,278	16,511
General industrial machinery and equipment, and machine parts n.e.c. . . . .	76,884	121,005	134,356
Office machines and ADP machines . . . . .	16,438	22,175	28,982
Telecommunications and sound recording and reproducing apparatus and equipment . . . . .	21,299	25,980	18,099
Electrical machinery, apparatus, appliances and parts . . . . .	71,701	89,406	103,756
Road vehicles . . . . .	233,667	415,117	414,780
Other transport equipment . . . . .	7,207	14,825	27,226
<b>Miscellaneous manufactured articles:</b>			
Professional, scientific and controlling instruments; photographic and optical goods; clocks and watches . . . . .	38,427	55,012	73,402
Other . . . . .	90,331	105,473	117,065
Commodities and transactions n.e.c. (a) . . . . .	81,915	41,893	60,106
<i>Total</i> . . . . .	<i>1,804,614</i>	<i>1,861,399</i>	<i>2,049,952</i>

(a) Includes items deemed confidential.

Overseas Imports to South Australia, Principal Countries  
(\$'000)

<i>Country of origin</i>	1987-88	1988-89	1989-90
Austria . . . . .	12,114	17,564	22,761
Belgium-Luxembourg . . . . .	13,884	10,010	11,980
Canada . . . . .	42,059	33,661	30,471
China . . . . .	21,655	20,944	23,035
Denmark . . . . .	11,813	18,734	20,429
France . . . . .	33,529	36,638	44,237
Germany, Federal Republic of . . . . .	84,704	92,447	114,169
Hong Kong . . . . .	27,233	28,526	31,314
India . . . . .	19,231	9,518	10,757
Indonesia . . . . .	22,105	35,779	22,008
Italy . . . . .	64,684	54,484	64,122
Japan . . . . .	649,490	570,007	530,275
Korea, Republic of . . . . .	23,327	30,578	31,015
Malaysia . . . . .	20,311	28,276	32,148
Netherlands . . . . .	13,814	14,159	18,632
New Zealand . . . . .	45,325	60,028	66,443
Portugal . . . . .	13,302	14,168	11,664
Saudi Arabia . . . . .	104,368	101,223	132,424
Singapore . . . . .	26,087	53,406	62,567
Sweden . . . . .	17,660	10,691	17,072
Switzerland . . . . .	9,447	7,118	19,088
Taiwan . . . . .	55,686	52,682	59,573
Thailand . . . . .	21,755	20,160	23,811
United Kingdom . . . . .	120,248	90,357	118,028
United States of America . . . . .	223,277	320,951	432,329
Other . . . . .	107,506	129,290	99,600
<i>Total</i> . . . . .	<i>1,804,614</i>	<i>1,861,399</i>	<i>2,049,952</i>

The following table shows for 1989-90 the imports from principal countries by commodity group

Overseas Imports : South Australia from Principal Countries  
Commodity Groups, 1989-90  
(\$'000)

<i>Commodity group</i>	<i>Japan</i>	<i>USA</i>	<i>UK</i>	<i>Federal Republic of Germany</i>	<i>Total (a)</i>
<b>Food and live animals:</b>					
Fish and fish preparations .....	212	137	220	298	17,176
Other .....	129	4,189	2,728	1,989	37,804
Beverages and tobacco .....	-	1,423	4,932	26	16,816
<b>Crude materials, inedible (except fuels):</b>					
Cork and wood .....	-	12,321	18	77	37,972
Crude fertilisers and crude minerals .....	2,437	2,446	173	21	21,359
Other .....	444	3,897	133	438	30,785
Mineral fuels, lubricants and related materials .....	26	42,024	149	166	205,115
Animal and vegetable oils, fats and waxes .....	-	171	10	6	2,387
<b>Chemicals and related products n.e.c.:</b>					
Organic chemicals .....	6,311	3,658	2,349	741	23,871
Fertilisers (excl. crude) .....	-	31,038	56	60	44,516
Plastics in non-primary forms .....	2,161	7,824	935	421	19,520
Other .....	3,738	22,236	13,356	10,769	75,734
<b>Manufactured goods classified chiefly by material:</b>					
Rubber manufactures n.e.c. ....	18,926	4,931	2,047	3,197	44,645
Cork and wood manufactures (excl. furniture) ...	90	2,019	14	1,335	30,618
Paper, paperboard and manufactures thereof ...	7,145	6,510	3,340	2,864	54,984
Textile yarn, fabrics and made-up articles .....	3,001	6,191	2,232	843	49,241
Non-metallic mineral manufactures n.e.c. ....	7,466	3,760	1,882	3,833	46,084
Iron and steel .....	56,075	2,804	1,464	2,151	80,296
Manufactures of metal n.e.c. ....	5,642	7,397	3,999	14,553	52,350
Other .....	506	435	1,130	872	11,305
<b>Machinery and transport equipment:</b>					
Power generating machinery and equipment ....	9,738	17,784	2,935	1,934	45,185
Machinery specialised for particular industries ...	18,950	25,062	3,302	17,175	107,906
Metalworking machinery .....	7,319	1,783	916	2,763	16,511
General industrial machinery and equipment and machine parts n.e.c. ....	28,897	25,912	5,326	20,194	134,356
Office machines and ADP machines .....	1,020	13,126	506	154	28,982
Telecommunications and sound recording, and reproducing apparatus and equipment .....	7,231	2,430	326	290	18,099
Electrical machinery, apparatus, appliances and parts .....	22,351	18,574	5,364	9,336	103,756
Road vehicles .....	295,862	90,496	3,852	7,067	414,780
Other transport equipment .....	148	6,239	18,860	231	27,226
<b>Miscellaneous manufactured articles:</b>					
Professional, scientific and controlling instruments; photographic and optical goods; clocks and watches .	6,941	27,448	8,027	2,879	73,402
Other .....	6,795	17,659	22,896	5,618	117,065
Commodities and transactions n.e.c. (b) .....	10,715	20,406	4,552	1,869	60,106
<i>Total</i> .....	<i>530,275</i>	<i>432,329</i>	<i>118,028</i>	<i>114,169</i>	<i>2,049,952</i>

(a) From all sources. (b) Includes items deemed confidential.

### 13.3 PRICES

The prices of a wide range of commodities and services are recorded at regular intervals by the Australian Bureau of Statistics for the purpose of compiling various price indexes.

Price indexes aim to measure the degree of change in price levels of specified quantities and qualities of a list of selected items. It is traditional to select a certain year, known as the base year, and to equate the average aggregate price (of the list of items) in that year to 100. Index numbers then represent the change in prices from that period.

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. The actual levels of prices may differ substantially.

## Retail price indexes

### Consumer Price Index

The Consumer Price Index (CPI) measures price changes relating to the spending pattern of a large proportion of metropolitan employee households, where employee households have been defined as those households which obtain at least three-quarters of their total income from wages and salaries, excluding the top 10 per cent (in terms of income) of such households.

The CPI is a chain of linked indexes with significant changes in composition and weighting effected at regular intervals. 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.

The eleventh series of the index was introduced in the March quarter 1987 with a weighting pattern derived from the Household Expenditure Survey 1984 and a reference base 1980-81 = 100.

There are 107 expenditure classes or groupings of like items within the index and each class has its own weight or measure of relative importance. In calculating the index, price changes for the various expenditure classes are combined using these weights.

The wide range of commodities and services in the CPI 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  
(Base Year : 1980-81 = 100.0)

Quarter	Food	Clothing	Housing	Household equipment and operation	Transportation	Tobacco and alcohol	Health and personal care	Recreation and education (a)	All groups
<i>1988 -</i>									
Sept. ...	176.0	174.5	180.0	180.1	195.2	205.2	182.8	158.3	182.7
Dec. ...	177.4	180.3	185.0	182.5	199.6	206.9	182.7	161.6	185.7
<i>1989 -</i>									
Mar. ...	180.4	180.2	197.2	184.0	201.6	210.9	190.8	163.3	189.5
June ...	185.6	186.2	204.3	185.4	204.9	215.8	191.6	165.2	193.2
Sept. ...	189.5	186.6	212.6	187.5	205.8	221.2	196.0	166.9	196.5
Dec. ...	188.4	188.7	219.0	191.1	210.5	223.5	201.7	170.1	199.6
<i>1990 -</i>									
Mar. ...	186.8	190.1	223.4	193.5	215.6	228.5	209.4	173.0	202.5
June ...	190.7	191.9	226.5	197.8	218.3	234.0	216.3	175.3	206.2
Sept. ...	192.6	193.2	228.1	199.8	221.8	239.5	221.2	177.0	208.8
Dec. ...	196.1	196.0	232.2	203.1	236.3	253.5	228.6	180.1	215.1
<i>1991 -</i>									
Mar. ...	197.6	196.5	228.8	203.2	226.5	257.9	238.9	181.3	214.6
June ...	198.1	198.4	228.6	205.5	225.2	264.8	245.0	179.8	215.8

(a) Base: March quarter 1982 = 100.0.

*Household  
expenditure  
surveys*

During 1988–89, the Australian Bureau of Statistics conducted a survey in order to obtain information about the expenditure patterns of private households (a household is defined as a group of people who live together and have common provision for food and other essentials of living – a household may contain more than one income unit). Expenditure in this survey relates to the value of goods and services as they were acquired (e.g. bankcard purchases are counted as expenditure at the time of acquisition, and not at the time the bankcard bill was paid). Household expenditure surveys were previously conducted in 1974–75, 1975–76 and 1984.

Household Expenditure Survey, 1988–89

<i>Particulars</i>	<i>Adelaide</i>	<i>South Australia</i>
	<i>Average weekly household expenditure (\$)</i>	
Commodity or service:		
Current housing costs .....	69.14	62.75
Fuel and power .....	13.23	13.04
Food and non-alcoholic beverages .....	86.68	85.27
Alcoholic beverages .....	15.62	15.67
Tobacco .....	7.05	6.66
Clothing and footwear .....	28.54	25.88
Household furnishings and equipment .....	30.12	28.74
Household services and operation .....	20.95	20.65
Medical care and health expenses .....	20.43	20.28
Transport .....	71.36	69.63
Recreation .....	54.36	54.13
Personal care .....	9.75	9.55
Miscellaneous commodities and services .....	34.84	35.88
<i>Total commodity or service expenditure ....</i>	<i>462.07</i>	<i>448.13</i>
Selected other payments:		
Income tax .....	108.19	100.51
Mortgage payments .....	6.42	5.40
Other capital housing costs .....	16.49	17.65
Superannuation and life insurance .....	15.99	15.15
Average weekly household income .....	588.08	557.80
Average weekly income per head (a) .....	229.72	217.04
Average weekly expenditure per head (a) .....	180.50	174.37
Average number of employed persons in household .....	1.2	1.2
Number of households in sample .....	662	815

(a) Per head estimates of average weekly expenditure or income are derived by dividing the weekly expenditure or income, of all household members, by the number of household members irrespective of age.

The collection of data relating to expenditure at the household level is important in providing information for use in improving the representativeness of the items and the weighting pattern used to compile the Consumer Price Index.

In 1988–89, the average weekly income of households in South Australia was \$557.80, while average weekly expenditure was \$448.13. Income tax payments accounted for a large part of the difference between income and expenditure as defined. The larger items of average weekly household expenditure in 1988–89 were food and non-alcoholic beverages (\$85.27), transport (\$69.63), current housing costs (\$62.57) and recreation (\$54.13).

To enable comparisons of expenditure patterns by income level, in the following table households have been ranked according to their income, and then divided into five groups of equal size, called quintiles.

Household Expenditure Survey : Household Expenditure and  
Characteristics by Income Quintile Group, 1988-89

Expenditure group and household characteristics	Weekly household gross income (\$)					All households
	0-208	209-368	369-606	607-887	888 or more	
	Lowest 20%	Second quintile	Third quintile	Fourth quintile	Highest 20%	
AVERAGE WEEKLY HOUSEHOLD EXPENDITURE (\$) (b)						
Commodity or service:						
Current housing costs (selected dwelling) . . . . .	28.08	41.18	66.88	86.02	90.17	62.75
Fuel and power . . . . .	7.99	11.09	12.72	14.55	18.63	13.04
Food and non-alcoholic beverages . . . . .	47.92	65.68	80.81	106.63	123.92	85.27
Alcoholic beverages . . . . .	4.16	7.55	12.84	19.04	34.21	15.67
Tobacco . . . . .	4.22	5.97	7.41	6.83	8.74	6.66
Clothing and footwear . . . . .	11.67	13.34	21.74	37.78	44.31	25.88
Household furnishings and equipment . . . . .	13.34	14.38	28.24	31.72	55.07	28.74
Household services and operation . . . . .	11.57	16.78	19.12	25.43	30.03	20.65
Medical care and health expenses . . . . .	8.99	12.01	22.17	24.24	33.41	20.28
Transport . . . . .	19.67	36.21	64.85	105.44	120.03	69.63
Recreation . . . . .	20.22	22.00	45.11	60.62	120.78	54.13
Personal care . . . . .	4.41	6.08	7.61	11.76	17.68	9.55
Miscellaneous commodities and services . . . . .	9.42	11.88	29.65	51.03	76.17	35.88
<i>Total commodity and service expenditure . . . . .</i>	<i>191.64</i>	<i>264.16</i>	<i>419.15</i>	<i>581.10</i>	<i>773.15</i>	<i>448.13</i>
PROPORTION OF TOTAL EXPENDITURE ON COMMODITIES AND SERVICES (Per cent)						
Commodity or service:						
Current housing costs (selected dwellings) . . . . .	14.7	15.6	16.0	14.8	11.7	14.0
Fuel and power . . . . .	4.2	4.2	3.0	2.5	2.4	2.9
Food and non-alcoholic beverages . . . . .	25.0	24.9	19.3	18.3	16.0	19.0
Alcoholic beverages . . . . .	2.2	2.9	3.1	3.3	4.4	3.5
Tobacco . . . . .	2.2	2.3	1.8	1.2	1.1	1.5
Clothing and footwear . . . . .	6.1	5.0	5.2	6.5	5.7	5.8
Household furnishings and equipment . . . . .	7.0	5.4	6.7	5.5	7.1	6.4
Household services and operation . . . . .	6.0	6.4	4.6	4.4	3.9	4.6
Medical care and health expenses . . . . .	4.7	4.5	5.3	4.2	4.3	4.5
Transport . . . . .	10.3	13.7	15.5	18.1	15.5	15.5
Recreation . . . . .	10.6	8.3	10.8	10.4	15.6	12.1
Personal care . . . . .	2.3	2.3	1.8	2.0	2.3	2.1
Miscellaneous commodities and services . . . . .	4.9	4.5	7.1	8.8	9.9	8.0
<i>Total commodity and service expenditure . . . . .</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Average weekly household income (\$) . . . . .	75.94	270.48	479.55	738.77	1,203.56	557.80
Average number of persons per household . . . . .	1.51	2.22	2.78	3.05	3.25	2.57
Average age of household head (years) . . . . .	58	56	42	40	42	48
Average number of employed persons in household . . . . .	0.2	0.4	1.3	1.8	2.2	1.2

Further details on methodology and definitions may be obtained from the information paper 1988-89 Household Expenditure Survey (6527.0).

Detailed information on the Household Expenditure Survey can be obtained from the bulletin 1988-89 Household Expenditure Survey, Summary of Results (6530.0).

**Other price indexes**

The following indexes covering non-retail sectors of the economy are published by the Australian Statistician:

Export Price Index,  
Import Price Index,  
Price Index of Copper Materials,



Price Index of Materials Used in Manufacturing Industry,  
 Price Indexes of Materials Used in Coal Mining,  
 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, and  
 House Price Indexes

Separate State figures are published for the last three indexes, and these are further explained below.

*Materials used in building other than house building*

This index 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 construction of buildings other than houses commenced in the six State capital cities in the three years ended June 1977. The reference base of the index is the year 1979-80 = 100.0.

Prices are collected at the mid-point of the month to which the index refers, or as near 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.

Index numbers for separate groups of materials and the 'All Groups' index for Adelaide are shown in the following table.

Price Index of Materials Used in Building Other than House Building, Adelaide  
 (Base of each Index : 1979-80 = 100.0)

Group	1987-88	1988-89	1989-90
Structural timber .....	210.3	227.4	261.7
Clay bricks .....	224.6	237.0	252.5
Ready-mixed concrete .....	187.8	210.4	219.8
Pre-cast concrete products .....	221.5	238.2	266.0
Galvanised steel decking, cladding etc. ....	195.2	206.3	227.6
Structural steel .....	203.4	219.3	236.2
Reinforcing steel bar, fabric and mesh .....	180.6	194.5	212.1
Aluminium windows .....	227.2	249.5	262.5
Steel windows, doors, louvres etc. ....	218.9	234.0	247.3
Builders hardware .....	231.3	254.0	278.1
Sand, aggregate and filling .....	188.1	195.5	206.0
Carpet .....	196.0	214.0	218.8
Paint .....	217.5	237.9	250.8
Non-ferrous pipes .....	184.6	210.0	212.7
Special purpose index (a) .....	202.6	219.7	235.6
All electrical materials .....	210.4	222.9	244.7
All mechanical services .....	211.7	224.3	240.3
All plumbing materials .....	204.4	223.4	241.5
<i>All groups</i> .....	<i>204.7</i>	<i>220.7</i>	<i>237.1</i>

(a) All groups excluding electrical installation materials and mechanical services components.

Further information on the method of compiling the index may be found in the publication *Price Index of Materials Used in Building Other than House Building* (6407.0).

*Materials used in house building*

This index 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.

Price Index of Materials Used in House Building, Adelaide  
(Base Year: 1985-86 = 100.0)

Group	1987-88	1988-89	1989-90
All groups .....	110.8	120.9	129.7

*House price indexes*

These indexes reflect price movements for both established houses and project homes. The house price indexes are compiled by the ABS for use in calculating the Mortgage Interest Charges component of the CPI, however they are published separately because of the widespread interest in information specifically relating to housing.

Established houses are defined as detached residential dwellings on their own block of land where the houses can be new or secondhand. Price changes therefore relate to the house and land as a package.

Project homes are houses that are built on a client's block of land and price changes only apply to the dwelling.

In Adelaide established house prices rose 3.6 per cent in the year to December 1990, while project homes rose 4.8 per cent in the same period.

**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  
December Quarter  
(Cents)

Item	Unit	1988	1989	1990
Milk, carton, supermarket sales .....	1 litre	77	80	82
Cheese, processed, sliced, wrapped .....	500 g	252	278	332
Butter .....	500 g	164	159	171
Bread, white loaf, sliced, supermarket sales ..	680 g	101	106	116
Biscuits, dry .....	250 g	109	107	125
Breakfast cereal, corn based .....	500 g	196	206	238
Flour, self-raising .....	2 kg	188	200	190
Rice .....	1 kg	92	102	103
Beef:				
Rib (without bone) .....	1 kg	563	579	608
Rump steak .....	1 kg	973	995	1,092
Corned silverside .....	1 kg	573	620	622
Sausages .....	1 kg	331	339	366
Lamb:				
Leg .....	1 kg	450	473	440
Loin chops .....	1 kg	572	612	591
Forequarter chops .....	1 kg	422	432	415
Pork:				
Leg .....	1 kg	551	592	598
Chops .....	1 kg	663	719	742
Chicken, frozen .....	1 kg	309	303	328
Bacon, middle rashers, pre-packed .....	250 g	246	269	289
Salmon, pink .....	210 g	309	296	266
Potatoes .....	1 kg	115	180	93

Average Retail Prices of Selected Food and Grocery Items, Adelaide  
December Quarter (continued)  
(Cents)

<i>Item</i>	<i>Unit</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
Onions .....	1 kg	235	140	140
Peaches, canned .....	825 g	156	165	172
Peas, frozen .....	500 g	112	134	132
Eggs (55 grams) .....	doz.	203	225	223
Sugar .....	2 kg	162	201	201
Tea .....	250 g	141	135	148
Coffee, instant, jar .....	150 g	455	434	422
Tomato sauce .....	600 mL	124	132	147
Margarine, polyunsaturated .....	500 g	135	132	148

*Other commodity prices*

South Australian prices of agricultural products are shown in the table on page 185, and additional details for wheat, wool and livestock are given under the appropriate headings in Part 10.1.

**Further references**

Additional information may be found in the following ABS publications:

- 6401.0 *Consumer Price Index, Australia*
- 6407.0 *Price Index of Materials Used in Building other than House Building, Australia*
- 6408.0 *Price Index of Materials Used in House Building, Australia*
- 6416.0 *House Price Indexes, Australia*
- 6440.0 *A Guide to the Consumer Price Index, Australia*
- 6527.0 *1988-89 Household Expenditure Survey, Australia*
- 6530.0 *1988-89 Household Expenditure Survey, Australia: Summary of Results*

## Chapter 14

# TRANSPORT AND COMMUNICATION

## 14.1 LAND TRANSPORT

### Roads

Roads in South Australia are officially classified as national highways, arterial roads, and local roads; these classifications have been determined by the Commonwealth Government in consultation with the South Australian Government.

The Department of Road Transport is the road authority for South Australia. Its key objective is to serve the transport needs of the community by developing and managing the road network and its use as an integrated part of the transport system. Responsibility for the construction and maintenance of roads is shared between the Department and the various Local Government Authorities. The Department is responsible for the construction, reconstruction, maintenance and improvement of the whole national highway network in the State (2,460 kilometres), nearly all of the arterial road network (9,777 kilometres) and 12.7 per cent (10,541 kilometres) of the local road network. Most of the local roads maintained by the Department are located in the unincorporated areas of the State.

The following table shows the length of roads according to class of road and type of surface at 30 June 1991.

Length of Roads : Type of Surface, 30 June 1991  
(Kilometres)

Class of road	Type of surface		Total
	Sealed	Unsealed	
National highways (a) .....	2,460	—	2,460
Arterial roads (b):			
Rural .....	8,355	506	8,861
Urban .....	956	—	956
Local roads (c):			
Rural .....	6,324	69,131	75,455
Urban .....	6,252	923	7,175
<i>Total</i> .....	<i>24,347</i>	<i>70,560</i>	<i>94,907</i>

(a) Roads declared by the Commonwealth Minister for Transport to be national highways under the provisions of the *Australian Land Transport Development Act 1988* (Cwlth). They are selected roads linking Adelaide with other State capital cities including Darwin and Canberra.

(b) Roads declared by the Commonwealth Minister for Transport to be arterial roads under the provisions of the *Australian Land Transport Development Act 1988* (Cwlth).

(c) Roads not included in above categories.

The Department of Road Transport maintains approximately 1,300 major bridges and culverts throughout the State. The River Murray in South Australia is bridged at five locations (four of which are on two interstate routes) and the Department provides free and continuous ferry services across the river at thirteen places. A free ferry service also operates across Cooper Creek, on the Birdsville Track in the far north of the State, when the creek is in flood.

**Road finance**

For South Australia, the main sources of funds for road works during 1990–91 were:

- (a) the net proceeds of fees imposed by the State Government for the registration of motor vehicles and the licensing of drivers;
- (b) an allocation from the collection of motor fuel licence fees levied pursuant to the *Business Franchise (Petroleum Products) Act 1979*;
- (c) Commonwealth Government grants to the States and Territories pursuant to the *Australian Land Transport Development Act 1988* (Cwlth);
- (d) Commonwealth Government grants to the States and Territories pursuant to the *Interstate Road Transport Act 1985* (Cwlth) and the *Interstate Road Transport Charges Act 1985* (Cwlth);
- (e) advances for capital purposes from the State Consolidated Account; and
- (f) property rates and other levies imposed by municipal and district councils.

**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 (ANRC).

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.

At 30 June 1990 ANRC operated 4,904 route kilometres of country rail track in South Australia. This included part of the 1,435 mm gauge Trans-Australia Railway from Kalgoorlie to Broken Hill; the 1,435 mm gauge Tarcoola to Alice Springs line; and other 1,600 mm and 1,067 mm gauge lines, including the isolated Eyre Peninsula system (1,067 mm gauge).

At 30 June 1990 the State Transport Authority (STA) operated 125 route kilometres of metropolitan (1,600 mm gauge) rail track in South Australia.

**State Transport Authority**

The State Transport Authority is constituted as a body corporate under the *State Transport Authority Act 1974*.

The main role of the State Transport Authority set out in its corporate charter is:

- (a) to provide passenger transport services for the people of the Adelaide Metropolitan area, through an integrated network of bus, tram and rail routes which offers reasonable access, with emphasis on the large numbers of people who travel regularly and have similar destinations; and
- (b) in accordance with Government policy and with the resources available, the Authority will provide a level and standard of service, consistent with demand, in the most cost effective manner. It will actively plan and develop services and facilities required to serve the needs of its market.

From July 1975, by virtue of the *Railways (Transfer Agreement) Act 1975* and the *Railways Agreement (South Australia) Act 1975* (Cwlth), the Australian National Railways Commission acquired the non-metropolitan portion of the South Australian Railways, i.e. the country and interstate passenger services and all freight services, subject to a number of conditions and controls exercised by the State. Facilities within the metropolitan area concerned with the handling of freight and the servicing and repair of rollingstock also became the property of the Commission.

The STA railway system extends generally from Adelaide to the extremities of the metropolitan area at Outer Harbor, Gawler Central, Belair and Noarlunga Centre and

includes interconnecting loops and branch lines. Under the terms of the Act the Commission and the Authority have the right to run their rollingstock over the railways of each other.

#### State Transport Authority, Selected Non-financial Details

<i>Item</i>	1988-89	1989-90	1990-91
'000			
Passenger journeys (a) .....	53,930	54,220	56,865
Traffic vehicle kilometres run:			
Bus .....	37,753	38,642	40,039
Tram .....	751	713	720
Rail .....	7,024	7,160	6,730
NUMBER			
Total route kilometres: .....			
Bus .....	1,020.10	1,049.10	1,057.20
Tram .....	10.80	10.80	10.80
Rail .....	128.20	126.20	121.53
Vehicle fleet at 30 June:			
Buses (b) .....	701	740	739
Tramcars .....	21	21	21
Rail cars .....	131	131	130
Number of employees at 30 June (c) .....	3,374	3,458	3,327

(a) From 1987-88 initial passenger boardings. (b) Includes charter and tour buses. (c) Includes staff made available by Australian National.

### Other road passenger transport

#### Private bus services

Legislation covering the regulation of private bus operations in South Australia is included in Part IVB of the *Road Traffic Act 1961*, and is enforced by the Department of Transport.

Private operations are regulated via a licensing system which includes the issuing of licences authorising route service, tour and charter, community bus, school children and other special categories. Route service licences have a currency of five years, with other licences having tenures of twelve months.

#### Country town bus services

Commencing in May 1975, the State Government offered financial assistance through local government to urban bus services outside the metropolitan area. Under the 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 within specified timetables determined by a three-person management committee. The committee consists of an elected Council representative, the chief executive officer or his deputy, and a representative of the Minister of Transport.

Contract services are operated in Port Pirie, Port Augusta, Port Lincoln, Mount Gambier and Murray Bridge. In Whyalla the bus service is municipally owned and operated.

*Interstate and country services*

Regular interstate coach services and special charters and tours operate to all mainland States. In addition, a network of bus route services operates on radial routes from Adelaide to all parts of the State. These services are provided by thirteen private companies, under licences issued by the Office of Transport Policy and Planning. Most are operated from two adjacent terminals in Franklin Street, Adelaide.

Intrastate passenger route services on all routes are controlled by the Office of Transport Policy and Planning. Generally, pick-up and set-down rights on the routes are non-competitive with other route service operations. The Office of Transport Policy and Planning also regulates tour, charter and school children runs etc. within the State.

*Taxi-cabs*

The *Metropolitan Taxi-Cab Act 1956*, administered by the Metropolitan Taxi-Cab Board, is the governing legislation providing for the control of taxi-cabs and hire cars within the Metropolitan Planning Area as defined by Section 5(1) of the *Planning and Development Act 1966*, together with the whole of the Municipality of Gawler and from 2 September 1982 the district council area of Mount Barker. The Board is responsible for the granting of licences or permits to operate taxi-cabs and the charging of permit fees.

Licences issued at 30 June 1990 include taxi-cabs 878; hire cars 55; and funeral cars 11. Vehicle drivers licences current totalled 3,443.

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*.

The present legislation for the control of road traffic in South Australia is set out in the *Road Traffic Act 1961* and the *Motor Vehicles Act 1959*.

*Registration of motor vehicles*

New motor vehicle registrations during the financial years 1988-89 to 1990-91 are shown in the following table.

New Motor Vehicle Registrations<sup>(a)</sup>

Type of vehicle	1988-89	1989-90	1990-91
Cars and station wagons	31,921	35,211	34,753
Utilities	2,649	3,197	3,207
Panel vans	1,462	1,781	1,564
Trucks	2,294	2,411	1,380
Other truck type vehicles (b)	247	201	255
Buses	162	216	197
Motor cycles	1,363	1,704	1,492
<i>Total</i>	<i>40,098</i>	<i>44,721</i>	<i>42,848</i>

(a) Includes Commonwealth Government owned vehicles except defence services vehicles.

(b) Includes truck type vehicles not designed for freight carrying, e.g. tow trucks, fire engines, ambulances and hearses.

Under the provisions of the *Motor Vehicles Act 1959* 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 road.

Motor Vehicles on Register<sup>(a)</sup> at 30 June

Type of vehicle	1988	1989	1990
'000			
Cars .....	552.1	562.3	575.5
Station wagons .....	114.0	118.0	123.4
Commercial vehicles .....	149.1	152.1	154.9
Motor cycles .....	31.1	30.1	29.7
<i>Total on register</i> .....	<i>846.3</i>	<i>862.5</i>	<i>883.5</i>
PERSONS			
Population per vehicle .....	1.66	1.65	p1.63
'000			
Tractors, plant, equipment .....	7.0	7.0	6.8
Trailers and caravans .....	195.4	202.7	210.6
Traders plates .....	3.2	3.2	3.2

(a) Includes Commonwealth Government owned vehicles except defence services vehicles.

*Drivers  
licences*

From 3 June 1991, the following classes of drivers licences have applied in South Australia:

- Class C Any motor vehicle the gross vehicle mass (GVM) of which does not exceed 4.5 tonnes (except a motor omnibus designed or adapted to carry more than 12 persons (including the driver), an articulated motor vehicle, a heavy trailer combination or a motor cycle).
- Class LT Any motor vehicle the GVM of which does not exceed 15 tonnes (except a motor omnibus designed or adapted to carry more than 12 persons (including the driver), an articulated motor vehicle, a heavy trailer combination, or a motor cycle).
- Class HT Any motor vehicle (except a motor omnibus designed or adapted to carry more than 12 persons (including the driver), an articulated motor vehicle, a heavy trailer combination, or a motor cycle).
- Class LA Any motor vehicle (except a motor omnibus designed or adapted to carry more than 12 persons (including the driver), an articulated vehicle the gross combination mass limit of which exceeds 24 tonnes, a heavy trailer combination the hauling unit of which has a gross combination mass limit exceeding 24 tonnes, or a motor cycle).
- Class HA Any motor vehicle (except a motor omnibus designed or adapted to carry more than 12 persons (including the driver), a B Double, a Road Train, or a motor cycle).
- Class RT Any motor vehicle (except a motor omnibus designed or adapted to carry more than 12 persons (including the driver) or a motor cycle).
- Class DA Any motor vehicle (except a motor omnibus designed or adapted to carry more than 12 persons (including the driver), a road train, or a motor cycle).



- Class BD Any motor cycle which has an engine capacity not exceeding 250 c.c.
- Class B Any motor cycle.
- Class SB Any motor omnibus designed or adapted to carry no more than 30 persons including the driver.
- Class LB Any motor omnibus the GVM of which does not exceed 15 tonnes except an articulated omnibus.
- Class HB Any motor omnibus except an articulated motor omnibus.
- Class AB Any motor omnibus.
- Class W Any motorised wheelchair.

From 30 October 1989 the minimum age for the issue of a probationary driver's licence was raised from 16 years to 16 years 6 months. The minimum age for the issue of a learner's permit remained at 16 years. Applicants for a probationary driver's licence, who are aged under 18 years, are subject to probationary conditions until age 19, or in other cases, for a period of twelve months.

Drivers and riders licences current at 30 June 1991 totalled 944,004. The number in force first exceeded 100,000 in 1931, exceeded 300,000 by 1957, 500,000 by 1969, and had exceeded 800,000 by 1984.

#### *Third Party (bodily injury) insurance*

Under the *Motor Vehicles Act 1959* every motor vehicle driven on a 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 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.

A person claiming damages in respect of death or bodily injury caused by negligence in the use of an uninsured motor vehicle on a road may bring an action for the recovery of those damages against the nominal defendant appointed by the Minister of Transport and published in Government Gazette. 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.

#### *Motor vehicle usage*

A survey was conducted throughout Australia in late 1988 for the purpose of gathering information on the usage of motor vehicles. The period covered by the survey was for the twelve months ended 30 September 1988. Previous surveys were conducted in 1963, 1971, 1976, 1979, 1982 and 1985.

The survey population (motor vehicles on the register), from which the sample was drawn, was extracted from the registration systems of the Commonwealth Government and State motor vehicle registration authorities. It was then stratified according to body type and characteristics such as tare weight and age of vehicle.

Of the vehicles selected for the 1988 sample, 75 per cent were trucks, utilities, vans without rear seats and panel vans; 25 per cent cars, station wagons, vans with rear seats and motor cycles. The emphasis on 'commercial' vehicles was necessary because of the diverse usage characteristics of commercial vehicles and because a major interest of users is in road freight transport.

Additional details relating to South Australia and Australia are shown in the bulletins *Survey of Motor Vehicle Usage, Twelve months Ended 30 September 1988* (9208.0) and *Survey of Motor Vehicle Usage, Commercial Vehicle Usage, Australia, Twelve Months Ended 30 September 1988* (9209.0).

## Motor Vehicle Usage : Average Annual Distance Travelled, 1988

Type of vehicle	Average annual distance travelled		Average annual distance travelled for business purposes	
	'000km	SE%	'000km	SE%
Cars and station wagons .....	14.4	(2)	12.2	(5)
Motor cycles .....	5.2	(7)	3.5	(22)
Utilities and panel vans .....	18.1	(5)	18.3	(6)
Rigid trucks .....	15.3	(3)	15.1	(3)
Articulated trucks .....	83.7	(3)	83.6	(3)
Non-freight carrying trucks .....	7.7	(9)	7.6	(10)
Buses .....	44.7	(4)	44.4	(4)
<i>Total</i> .....	<i>14.9</i>	<i>(2)</i>	<i>15.4</i>	<i>(3)</i>

## Motor Vehicle Usage : Average Rate of Fuel Consumption, 1988

Type of vehicle	Petrol		Diesel or distillate		LPG or dual fuel	
	Litres per 100 km	SE%	Litres per 100 km	SE%	Litres per 100 km	SE%
Cars and station wagons ..	11.8	(0)	12.7	(4)	16.3	(3)
Motor cycles .....	5.9	(4)	-	(-)	-	(-)
Utilities and panel vans ...	13.4	(3)	12.1	(3)	16.8	(12)
Rigid trucks .....	21.5	(3)	28.3	(2)	30.9	(15)
Articulated trucks .....	46.4	(4)	52.0	(1)	-	(-)
Non freight-carrying trucks .	28.0	(9)	34.8	(7)	40.0	(0)
Buses .....	21.0	(13)	36.1	(1)	41.0	(15)
<i>Total</i> .....	<i>12.1</i>	<i>(0)</i>	<i>30.2</i>	<i>(3)</i>	<i>17.3</i>	<i>(4)</i>

## Census of motor vehicles

A census of motor vehicles on the register in Australia at 30 September 1988 was completed during 1989. The following table classifies motor vehicles on register by type of vehicle and year of manufacture at 30 September 1988 for South Australia.

Motor Vehicles on Register : Type of Vehicle and Year of Manufacture  
30 September 1988<sup>(a)</sup>  
(<sup>'000</sup>)

Year of manufacture	Type of vehicle						Total (a)
	Cars and station wagons	Utilities and panel vans	Rigid trucks	Articulated trucks	Non-freight carrying trucks	Buses	
Before 1971	70.4	8.9	9.7	0.4	1.2	0.3	90.9
1971-1974 .	97.9	11.8	6.3	0.6	1.4	0.3	118.3
1975-1978 .	148.9	19.5	9.8	1.1	2.0	0.6	181.9
1979-1982 .	154.6	20.8	10.0	1.1	1.1	0.7	188.3
1983 .....	38.9	5.6	2.2	0.2	0.3	0.2	47.4
1984 .....	43.9	6.8	2.8	0.2	0.4	0.2	54.3
1985 .....	47.3	6.9	3.4	0.2	0.4	0.2	58.4
1986 .....	31.7	4.5	2.1	0.2	0.3	0.2	38.9
1987 .....	28.6	3.2	1.5	0.1	0.2	0.2	33.8
1988 .....	19.2	2.1	1.0	0.1	0.1	0.1	22.5
<i>Total</i> ....	<i>681.5</i>	<i>90.0</i>	<i>48.7</i>	<i>4.1</i>	<i>7.4</i>	<i>3.0</i>	<i>834.7</i>

(a) Excludes motor cycles (34,371).

**Road accident prevention**

The Office of Road Safety of the Department of Road Transport was established in 1981 for the purpose of developing, coordinating and implementing road safety policy embracing education, enforcement and legislation, traffic regulation and vehicle design and safety.

There are a number of other Government organisations involved in the promotion of road safety in South Australia including the Motor Registration Division, and the Police, Highways and Education departments.

The primary role of the Office of Road Safety is to achieve greater coordination, consolidation and integration of the road safety effort in South Australia. Its administrative responsibilities presently extend to the promotion of road safety through media and publicity and instructional activity, centred on its Road Safety Centre at Oaklands Park and road safety policy and research.

By virtue of its road safety role the Office of Road Safety undertakes the majority of road safety research, investigation and evaluation in South Australia.

**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.

For the purpose of the following statistics, only those casualty accidents which occurred because of the presence of a moving vehicle on a road or other public thoroughfare (e.g. public car park, beach) and which also involved a fatality or the hospitalisation of injured persons have been included. Thus the casualty statistics refer to:

- (a) the death of any person within a period of thirty days of the accident; or
- (b) bodily injury to any person to an extent requiring hospitalisation.

The following table shows summary details of road traffic accidents for the years 1985 to 1989. During 1989 the total number of road traffic accidents decreased by 0.4 per cent (from 2,140 in 1988 to 2,132 in 1989). The number of accidents which resulted in fatalities decreased by 2.4 per cent (from 206 in 1988 to 201 in 1989).

**Road Traffic Accidents**

Year	Total acci- dents(b)	Fatal acci- dents	Persons killed	Persons injured	Rate per 100,000 of mean population		
					Total acci- dents	Persons killed	Persons injured
1985 .....	2,672	240	269	3,171	195	20	231
1986 .....	2,569	259	288	2,968	186	21	215
1987 .....	2,406	230	256	2,912	173	18	209
1988 .....	2,140	206	223	2,590	152	16	184
1989 .....	2,132	201	222	2,492	150	14	175

(a) 'Motor vehicles on register' is the number recorded at 30 June; includes Commonwealth Government owned vehicles except defence services vehicles; excludes tractors, trailers, plant, equipment and caravans.

(b) Includes only those accidents involving a fatality or the hospitalisation of injured persons.

Drivers (including motor cyclists) under twenty-one years of age, representing 8 per cent of licence holders at 30 June 1989, accounted for 24 per cent of drivers killed and 29 per cent of drivers injured during 1988. For drivers aged twenty-one to twenty-nine years deaths were 25 per cent and injuries 23 per cent while their representation in the driving population was 21 per cent. Pedestrians sixty years and over accounted for 13 per cent of pedestrians injured and 40 per cent of pedestrians killed.

In the following table, the types of road users killed and injured are shown according to age groups for 1990.

## Road Traffic Accidents : Age Groups of Casualties, 1990p

Age group of casualty (years)	Drivers of motor vehicles	Motor cyclists	Pedal cyclists	Passengers (a)	Pedestrians	All other	Total
PERSONS KILLED							
Under 5 . . . .	—	—	—	4	2	—	6
5-6 . . . . .	—	—	—	1	—	—	1
7-16 . . . . .	1	—	2	10	3	—	16
17-20 . . . . .	12	5	1	10	3	—	31
21-25 . . . . .	14	4	—	10	4	—	32
26-29 . . . . .	9	4	2	11	6	—	32
30-39 . . . . .	13	7	—	5	4	—	29
40-49 . . . . .	10	4	—	4	1	—	19
50-59 . . . . .	9	—	—	4	3	—	16
60 and over . .	20	—	1	16	5	—	42
Not stated . .	—	—	—	—	1	—	1
<i>Total . . . .</i>	<i>88</i>	<i>24</i>	<i>6</i>	<i>75</i>	<i>32</i>	<i>—</i>	<i>225</i>
PERSONS INJURED							
Under 5 . . . .	—	—	—	19	12	—	31
5-6 . . . . .	—	—	1	11	12	—	24
7-16 . . . . .	20	13	59	79	62	—	233
17-20 . . . . .	179	80	24	91	41	—	415
21-25 . . . . .	159	76	18	76	9	—	338
26-29 . . . . .	67	37	15	34	14	—	167
30-39 . . . . .	163	59	14	35	24	—	295
40-49 . . . . .	111	20	11	27	13	—	182
50-59 . . . . .	63	10	2	22	12	1	110
60 and over . .	109	3	12	42	44	—	210
Not stated . .	120	20	21	199	32	—	392
<i>Total . . . .</i>	<i>991</i>	<i>318</i>	<i>177</i>	<i>635</i>	<i>275</i>	<i>1</i>	<i>2,397</i>

(a) Passengers include pillion motor cyclists.

Source: Department of Road Transport, Office of Road Safety.

The following table shows casualties by type of road user in each of the three years to 1990.

## Road Traffic Accidents : Casualties

Year	Drivers of motor vehicles	Motor cyclists	Pedal cyclists	Passengers (a)	Pedestrians	All other	Total
PERSONS KILLED							
1988 . . . . .	92	28	4	53	43	3	223
1989 . . . . .	84	27	13	51	47	—	222
1990p . . . . .	88	24	6	75	32	—	225
PERSONS INJURED							
1988 . . . . .	1,079	286	170	822	229	4	2,590
1989 . . . . .	1,072	305	151	718	244	2	2,492
1990p . . . . .	991	318	177	635	275	1	2,397

(a) Passengers include pillion motor cyclists.

Source: Department of Road Transport, Office of Road Safety.

## 14.2 SEA TRANSPORT

### Harbours

The South Australian commercial ports system comprises the following ports:

(a) State commercial deep sea ports

Port Adelaide	Port Pirie
Port Bonython	Thevenard
Port Giles	Walleroo
Port Lincoln	

(b) Privately operated commercial deep sea ports

Whyalla	Port Stanvac
Ballast Head	Proper Bay
Ardrossan	

The Department of Marine and Harbours also maintains jetties and wharves for promenade and fishing purposes at many other minor ports no longer used by commercial vessels.

The control of all 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, and in addition for the control of the competency of masters and others in charge of intrastate vessels. Relevant legislation administered by the Department of Marine and Harbours includes the *Harbours Act 1936*, the *Marine Act 1936*, the *Prevention of Pollution of Waters by Oil Act 1961* and the *Boating Act 1974*.

In 1990-91 the State-owned ports handled 11,332,000 tonnes of cargo or approximately 58.3 per cent of the total tonnage of 19,427,000 tonnes passing through all the ports in South Australia.

The Department of Marine and Harbours is responsible for the provision of a shipping service between Port Adelaide and Kangaroo Island/Port Lincoln.

### 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* (Cwlth) which applies 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* (Cwlth), the *Seamen's Compensation Act 1911* (Cwlth), the *Seamen's War Pensions and Allowance Act 1940* (Cwlth), the *Australian Coastal Shipping Commission Act 1966* (Cwlth), the *Australian Coastal Shipping Agreement Act 1956* (Cwlth) and the *Stevedoring Industry Act 1956* (Cwlth).

Shipping in South Australia is controlled by the *Navigation Act 1912* (Cwlth) and, where this does not apply, by the *Harbours Act 1936* and the *Marine Act 1936*. Both of the State Acts are administered by the Department of Marine and Harbours.

#### *Registration of ships*

The Australian Register of Ships was established in Canberra by the Commonwealth Government and became operative on 26 January 1982. It replaced the British Register of Ships, which had become inappropriate as a means of registering Australian ships.

Registration of a ship provides proof of nationality and ownership, and enables the registration of encumbrances over a ship.

*Overseas shipping*

Overseas shipping cargo statistics are compiled from returns submitted by shipping companies, or their representatives, to Customs Houses at each port in South Australia.

The statistics relate to overseas ships calling at or departing from South Australian ports for the purpose of carrying cargo from or to overseas ports. Excluded are naval ships, yachts and other craft used for pleasure, foreign fishing ships that neither load nor discharge cargo, geophysical, oceanographic research and seismic survey ships, offshore oil drilling rigs and related service ships, Australian registered fishing ships operating from Australian ports and all ships of 200 registered net tonnes and under.

Cargo statistics are recorded in gross weight tonnes. Gross weight is the total weight of cargo, excluding the weight of containers.

## Shipping : Overseas Vessel Calls at South Australian Ports

<i>Port</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
<i>Port Adelaide:</i>			
Vessel calls .....	389	421	875
Deadweight tonnage ('000) .....	8,389	8,997	21,734
<i>Port Pirie:</i>			
Vessel calls .....	59	45	2
Deadweight tonnage ('000) .....	1,266	1,005	37
<i>Other:</i>			
Vessel calls .....	253	243	51
Deadweight tonnage ('000) .....	8,375	9,054	2,929
<i>Total :</i>			
Vessel calls .....	701	709	928
Deadweight tonnage ('000) .....	18,030	19,056	24,700

## Shipping : Overseas Cargo Discharged and Loaded

<i>Year</i>	<i>Discharged</i>		<i>Loaded</i>	
	<i>Gross weight</i>	<i>Value</i>	<i>Gross weight</i>	<i>Value</i>
	<i>'000 tonnes</i>	<i>\$m</i>	<i>'000 tonnes</i>	<i>\$m</i>
1987 .....	1,806	979	6,492	1,527
1988 .....	2,216	1,026	5,328	1,506
1989 .....	2,490	1,026	5,275	1,818
1990 .....	1,880	1,150	6,532	1,854

*Cargo handled*

The South Australian Department of Marine and Harbors records details of cargo handled at the larger ports in this State and the following table shows details for each of the last three years.

Cargo Handled at Major Ports  
(‘000 tonnes)

Port	1988-89	1989-90	1990-91
Ardrossan	1,092	1,309	1,024
Ballast Head	132	104	247
Kingscote	101	90	48
Klein Point	834	580	726
Port Adelaide	4,264	4,027	3,883
Port Bonython	2,236	1,968	1,954
Port Giles	387	325	312
Port Lincoln	764	1,109	1,329
Port Pirie	845	1,028	1,165
Port Stanvac	3,436	3,375	4,223
Proper Bay	39	35	15
Rapid Bay	145	332	214
Thevenard	1,260	1,427	1,218
Wallaroo	367	468	483
Whyalla	3,059	3,151	2,586
<i>Total</i>	<i>18,961</i>	<i>19,328</i>	<i>19,427</i>

*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 shown on page 2.

Distances from Port Adelaide to Principal Overseas Ports

Port Adelaide to:	Kilometres	Port Adelaide to:	Kilometres
Africa:		North America:	
Cape Town	10,377	East Coast;	
Asia:		Baltimore	(a)23,135
Colombo	7,982	Montreal	(c)19,059
Djakarta	5,643	New York	(a)23,541
Hong Kong	8,856	West Coast;	(c)21,368
Singapore	6,510	San Francisco	(a)22,961
Yokohama	9,780	Vancouver	(c)19,200
Europe:		Central America:	
Liverpool	(a)21,630	Panama	15,385
London	(b)19,774	South America:	
Marseilles	(a)21,705	East Coast;	
Naples	(b)19,839	Buenos Aires	(d)14,388
	(a)21,144	Rio de Janeiro	(d)15,901
	(b)16,688	West Coast;	
	(a)21,663	Valparaiso	12,353
	(b)15,940		
New Zealand:			
Auckland	3,769		
Wellington	3,482		

(a) Via Cape Town. (b) Via Suez Canal. (c) Via Panama Canal. (d) Via Cape Horn.

### 14.3 AIR TRANSPORT

**Control of civil aviation**

In Australia, civil aviation is subject to the *Air Navigation Act 1920* (Cwlth) and to regulations made under the Act.

The present regulations, administered by the Department of Transport and Communications, the Civil Aviation Authority and the Federal Airports Corporation, cover

the registration of aircraft and the issue of certificates of airworthiness, the licensing of aircraft services, aircraft operating crews, aerodromes, flying training schools, and the rules of the air.

These authorities are responsible for the provision and operation of air traffic services and rescue and fire fighting services and have assumed responsibility for the coordination of search and rescue operations. They are also responsible for the prevention of undesirable effects of air traffic on the environment and of unlawful interference with aircraft and aviation facilities.

## Aerodromes

There were thirty-five aerodromes used for civil aviation in South Australia at 30 June 1990.

The main airport in South Australia is the Adelaide Airport located six kilometres west of the city. The airport has both a domestic and an international terminal, the latter having scheduled services to Europe, the Far East and New Zealand.

Since the opening of the Adelaide Airport the aerodrome at Parafield, about eighteen kilometres north of Adelaide, has been restricted principally to use by light aircraft.

Adelaide and Parafield airports are owned and operated by the Federal Airports Corporation (FAC). The FAC was established on 1 January 1988 by the Commonwealth Government and is a statutory body designed to place the airports, with their terminals, runways and associated facilities on a proper commercial basis.

On 21 August 1990 the Government announced its intention to transfer the remaining Commonwealth aerodromes to local ownership and to encourage local owners of aerodromes currently jointly funded by the Commonwealth under the Aerodrome Local Ownership Plan to take over full responsibility for their aerodrome.

Mount Gambier Aerodrome and Port Lincoln Aerodrome have already transferred to local ownership.

Two airports, Ceduna and Whyalla, are still operated by the Commonwealth Department of Transport and Communications.

There are thirty licensed aerodromes, including sixteen which are operated by local councils and participate in the Aerodrome Local Ownership Plan.

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. Edinburgh Airfield is also the base for two Royal Australian Air Force maritime squadrons.

## Aircraft on register

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		
	1988	1989	1990
Regular public transport (a) .....	—	1	1
Private .....	495	515	534
Charter .....	260	298	326
Other (b) .....	156	179	200
<i>Total</i> .....	<i>911</i>	<i>993</i>	<i>1,061</i>

(a) Excludes major airlines servicing interstate routes. (b) Includes agricultural work, ambulance, survey and pilot training functions.



**General air services**

International air services commenced through Adelaide on 2 November 1982. At June 1990, there were three international carriers, Qantas, British Airways and Singapore Airlines, providing international services to Adelaide. These services link Adelaide with major centres including Singapore, London and Auckland.

Domestic air services to South Australia are provided by Ansett Transport Industries (Operations) Ltd, operating as Ansett of Australia, and Australian Airlines. At June 1990, the airlines provided direct services from Adelaide to the following major centres: Alice Springs, Brisbane, Canberra, Melbourne, Perth and Sydney. In addition, there were thirteen commuter operators providing services in South Australia at June 1990. The commuter sector of the Australian aviation industry is defined as those operators performing regular public transport services whose fleet contain exclusively aircraft with a maximum seating capacity of 38 or a maximum payload of 4,200 kilograms. Commuters served thirty-eight South Australian ports at June 1990.

**Principal Airports : Traffic Data**

<i>Airport</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90p(c)</i>
<b>PASSENGERS (b)</b>			
Adelaide .....	2,085,225	2,134,048	1,665,290
Adelaide International .....	141,519	138,433	162,859
Ceduna .....	4,446	4,675	4,663
Kingscote .....	41,712	44,161	47,037
Mount Gambier .....	45,469	48,787	50,981
Port Lincoln .....	65,960	74,593	76,685
Whyalla .....	37,617	39,603	41,673
<b>FREIGHT-TONNES (b)</b>			
Adelaide .....	16,472	16,532	8,701
Adelaide International .....	6,327	6,877	7,002
Ceduna .....	5	4	4
Kingscote .....	-	-	-
Mount Gambier .....	41	48	47
Port Lincoln .....	42	48	46
Whyalla .....	21	24	26
<b>AIRCRAFT MOVEMENTS (b)</b>			
Adelaide .....	46,041	46,744	40,795
Adelaide International .....	1,647	1,705	2,163
Ceduna .....	637	606	1,500
Kingscote .....	7,287	6,533	4,228
Mount Gambier .....	5,353	6,043	6,566
Port Lincoln .....	5,237	6,553	9,272
Whyalla .....	3,113	3,195	2,925

(a) Airlines of South Australia ceased services in April 1986. (b) Includes all domestic and commuter services.  
 (c) Decline in traffic data due to mass resignation of airline pilots on 24 August 1989 and subsequent capacity rebuilding.

**14.4 COMMUNICATION**

**Postal services**

Australia Post is a business enterprise wholly owned by the Commonwealth of Australia and established under the *Australian Postal Corporation Act 1989*. The Corporation is run as a commercial enterprise and is entirely self-funding. Its policies are set by a Board of Directors accountable to the Government for the Corporation's performance. Australia Post operates letter and parcel delivery services within Australia and internationally, and it provides a range of related services. The Act required Australia Post to provide all Australians with access to a uniform rate delivery service for Standard Letters. As a business enterprise, Australia Post operates in a highly-competitive market for its courier, parcel and retail services.

Australia Post provides agency services for other organisations such as the Commonwealth Bank, private sector businesses and State and Commonwealth government services. Electronic counter services are being extended to offer customers convenient access to these services for paying bills and transferring funds at their local post office. Known as the One Spot Billpay Service, this facility has been installed at over 200 Post Offices and Post Office Agencies throughout South Australia and the Northern Territory.

Recent advances in mail processing has been the introduction of Optical Character Reading (OCR) and Flats Sorting Machines (FSM) which collectively have streamlined the processing of articles through the mail exchange.

At 30 June 1991 there were 3,753 persons employed in postal services in South Australia and the Northern Territory comprising 2,617 full-time staff, 397 part-time staff, 523 Post Office Agency staff and 216 mail contractors.

#### Postal articles handled

Details of articles handled by post offices in South Australia and the Northern Territory during the years 1988-89 to 1990-91 are shown in the following table.

Postal Articles Handled, South Australia and Northern Territory ('000)

Year	Standard letters	Other letters and parcels	Security post	All articles
Posted for delivery:				
Within Australia;				
1988-89 .....	250,469	30,953	246	281,668
1989-90 .....	252,910	31,374	235	284,519
1990-91 .....	255,939	34,406	210	290,555
Beyond Australia;				
1988-89 .....	10,393	1,353	56	11,802
1989-90 .....	9,819	1,164	48	11,031
1990-91 .....	9,960	1,133	39	11,132
Received from beyond Australia:				
1988-89 .....	4,492	1,278	17	5,787
1989-90 .....	4,396	1,101	17	5,514
1990-91 .....	4,457	948	16	5,421

#### Telecommunications

The Australian Telecommunications Corporation (Telecom Australia) was established by the *Telecommunications Amendment Act 1988*. Telecom Australia has the responsibility for operating and maintaining efficient and economical communication networks, which will best meet the needs of Australia's society. At the present time Telecom Australia has the statutory authority to be the sole provider of the first telephone. Telecom Australia is also charged with a 'Community Services Obligation'. This obligation states that Telecom must provide telecommunication services to people living in country and remote localities.

At June 1990 there were approximately 7,000 staff employed by Telecom Australia in South Australia and the Northern Territory. During the financial year 1989-90, 56,330 new telephone services were installed in customer's premises.

The following table shows telecommunication services in South Australia and the Northern Territory for the period 1987-88 to 1989-90.

Telecommunication Services and Calls Made, South Australia  
and Northern Territory

Services	1987-88	1988-89	1989-90
Telephone exchanges .....	526	516	507
Telephone services in operation .....	646,658	674,037	707,176
Telex services in operation .....	2,526	1,696	1,051
<i>Calls made (millions)</i>			
Local telephone .....	724	725	789
Manual trunk .....	2,773	2,713	2,844
Subscriber trunk dialling .....	116,845	127,715	136,196
Manual international (a) .....	0.284	0.351	0.542
International direct dialled (b) .....	2,744	3,301	4,697
Telex calls within Australia (c) .....	2,490	1,698	1,961
International telex .....	0.420	0.275	0.189

(a) Figures are for South Australia only until 1988-89, from 1989-90 include Northern Territory. (b) Figures are for South Australia only. (c) Excludes official Telecom calls.

### Radio and television

There are twenty medium frequency amplitude modulation (AM) services operating in South Australia. Of these, seven are in Adelaide (three Australian Broadcasting Corporation (ABC), two commercial and two public stations). Six commercial and eight ABC stations service country areas.

Of thirty-five VHF frequency modulation (FM) services, nine are in Adelaide (two ABC, four commercial and three public stations) and six are in the country (all public stations); the ABC also operates twenty translator stations.

The first television station, NWS-9, commenced operation in September 1959. The main television stations currently operating in South Australia are ABS-2 (national); SAS-7, NWS-9 and ADS-10 (commercial) and Special Broadcasting Service (SBS-28). There are four regional commercial networks (providing thirty-four stations) and twenty-one Commonwealth transmitting facilities which transmit the programs of the ABC. In addition, there are 19 self-help facilities, licensed to re-transmit the ABC services.

### Further references

Additional information may be found in the following ABS publications:

- 9206.0 *Shipping and Air Cargo Commodity Statistics, Australia*
- 9208.0 *Survey of Motor Vehicle Usage, Australia*
- 9252.0 *Information Paper: Overseas Shipping and Air Cargo: an Overview, Australia*
- 9303.0 *Motor Vehicle Registrations, Australia*
- 9304.0 *Motor Vehicle Registrations, Australia*
- 9309.0 *Motor Vehicle Census, Australia*
- 9401.0 *Road Traffic Accidents Involving Fatalities, Australia*
- 9405.0 *Road Traffic Accidents Involving Casualties (Admissions to Hospitals), Australia*

## Chapter 15

# PUBLIC FINANCE

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## 15.1 FRAMEWORK OF PUBLIC FINANCE

### Structure

The collection of public revenue and the expenditure of public money in South Australia are the responsibility of three groups of authorities: (i) Commonwealth Government; (ii) South Australian Government and State public corporations which together make up State authorities; and (iii) local government.

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. The transactions which are included represent only a small proportion of total expenditure by the Commonwealth Government within South Australia.

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.

### Financial management

#### State Government

The financial administration legislation under which the State's finances are managed is the *Public Finance and Audit Act 1987*. The Act provides the framework within which the Government exercises control over the money which Parliament has appropriated.

The Act has established several types of accounts which, when taken together, comprise the Public Accounts. The most important of these accounts are the:

- Consolidated Account
- Special Deposit Accounts
- Deposit Accounts

#### Consolidated Account

The Consolidated Account is the Treasurer's main operating account and it is also the account in which all receipts and payments referred to in the Budget are recorded.

The Public Finance and Audit Act requires all money received by the Treasurer be paid into the Consolidated Account except where other legislative provisions permit these receipts to be credited to some other account. With limited exceptions, funds can only be issued from the Consolidated Account under the authority of the annual Appropriation Act (the Budget).

Expenditure from the Consolidated Account, in the main, comprises expenditure by Government departments, debit servicing costs, subvention to statutory authorities and grants to non-government bodies engaged in activities which the Government wishes to support.

**Deposit 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. The terms and conditions on which deposits are accepted are determined by the Treasurer.

**Special Deposit Accounts** The Treasurer is empowered under the Public Finance and Audit Act to establish Special Deposit Accounts for purposes relating to the activities of a Government department. Activities transacted through Special Deposit Accounts take place outside the formal budgetary process but under the broad supervision of the Treasurer.

The most common function of Special Deposit Accounts is to facilitate the accounting for plant stores and workshop activities. In addition, the activities of certain Departmental trading enterprises *e.g.* Woods and Forests Department, are carried out through Special Deposit Accounts to remove some of the constraints imposed by the appropriation process and to give the agency the flexibility needed to respond quickly to commercial opportunities.

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 State Budget, some contain substantial transactions which are not reflected in the Budget, *e.g.* the Woods and Forests Working Account which includes most of the transactions of forest operations in South Australia, and the Highways Fund through which a major proportion of the State's roads expenditure is transacted. Deposit and Suspense Accounts showed a credit balance of \$112,064,187 at 30 June 1990.

**Public corporations** 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.

Most public corporations enjoy considerable freedom in the conduct of their financial affairs. Section 7 of the Public Finance and Audit Act permits money received by an instrumentality of the Crown, that would otherwise be paid into the Consolidated Account, to be applied by the instrumentality without Parliamentary appropriation for the purpose of carrying out its functions.

There are numerous examples of bodies which operate in this way but some of the more prominent are the South Australian Government Financing Authority (SAFA), the State Transport Authority (STA), the Electricity Trust and the Pipelines Authority.

**Local government authorities** The relevant legislation under which local government finances are managed is the Local Government Act and the 'Local Government Accounting Regulations 1979'. The Regulations provide for uniformity in local government accounting and the adoption, as far as possible, of accepted accounting principles.

## 15.2 INTER-GOVERNMENTAL FINANCIAL RELATIONS

The Commonwealth Government's financial relations with the State and local government sectors comprise three broad types:

- (a) the provision of financial assistance in the form of grants or advances;
- (b) the Commonwealth undertaking borrowings of amounts determined by the Australian Loan Council on behalf of the States; and

- (c) the determination by Loan Council of the level of borrowings that can be undertaken each financial year by State semi-government and local authorities, government-owned companies and trusts.

*Financial  
assistance to  
State  
Government*

The Commonwealth has made payments to the States since Federation. Before the 1939–45 War these payments had a relatively small impact on the overall finances of the States; they were confined in the main to special grants designed to assist the financially weaker States and to certain specific purpose grants, including assistance for roads and for debt charges.

During and after the 1939–45 War however, there was a marked increase in the amount and scope of assistance to the States. This reflected not only the introduction and continuation of uniform income tax, but also an increase in the range and variety of the activities of both Commonwealth and State governments and greater participation by the Commonwealth Government in matters which were previously considered to be the sole responsibility of the States.

Commonwealth financial assistance to the States is provided in three main forms namely:

- (1) *General revenue assistance* – these are untied grants to assist in meeting recurrent State outlays. This is the largest inter-government transfer, accounting for 48 per cent of Commonwealth payments to the six States and Northern Territory in 1990–91.
- (2) *General purpose capital payments* – these are untied payments to assist with State outlays for capital purposes. They comprise the proceeds of borrowings by the Commonwealth on behalf of the States along with grants from the Commonwealth provided in lieu of such borrowings. In addition, the States are permitted to nominate amounts from within the borrowing component of the program for public housing purposes. These latter amounts are provided as loans from the Commonwealth on concessional terms and conditions.
- (3) *Specific purpose payments* – these are payments to the States to meet expenditure the purpose of which is designated by the Commonwealth and/or as a condition of States agreeing to undertake particular actions. In 1990–91, approximately 75 per cent of the payments were for recurrent purposes and virtually all were provided as grants. Some of these payments are passed on by States to local government authorities.

**Commonwealth Payments and Loan Council Borrowings  
(\$ million)**

<i>Particulars</i>	<i>1988–89</i>	<i>1989–90</i>	<i>1990–91</i>
General purpose funds:			
Revenue .....	1,316.0	1,397.1	1,434.8
Capital:			
Loan Council borrowings .....	39.6	–	–
Capital grants .....	39.6	39.6	39.0
<i>Total general purpose</i> .....	<i>1,395.2</i>	<i>1,436.6</i>	<i>1,473.8</i>
Specific purpose:			
Recurrent .....	756.4	830.1	908.6
Capital .....	269.3	261.0	266.8
<i>Total specific purpose</i> .....	<i>1,025.8</i>	<i>1,091.1</i>	<i>1,175.4</i>
<b>Total Commonwealth payments</b> .....	<b>2,420.9</b>	<b>2,527.8</b>	<b>2,649.2</b>

**Financial assistance to local government**

The Commonwealth's financial relations with local government consist of payments from the Commonwealth Budget made directly or through State Governments, and Loan Council arrangements on local government borrowings.

**General purpose assistance**

General purpose assistance comprises untied grants which are the local government equivalent of general purpose assistance to the State Government Sector. The grants are paid initially to the States who are required to pass on the full amounts to local government authorities.

General purpose financial assistance has been paid to local government authorities since 1974-75. Arrangements since 1986-87 have been embodied in the *Local Government (Financial Assistance) Act 1986* (Cwlth).

**Direct payments**

There are a number of programs under which local government authorities are among the bodies eligible for Commonwealth assistance. The grants are required to be spent on specific purposes designated by the Commonwealth *e.g.* child care.

Some of the funds provided to the States for specific purposes are passed on to local government. The amounts passed on are generally at the discretion of State governments, although in certain instances (such as road funding) the amounts passed on are subject to the approval of the Commonwealth.

**Commonwealth Payments to Local Government  
(\$million)**

<i>Particulars</i>	<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>
General purpose assistance (a) .....	57.3	58.5	60.0
Direct payments:			
Current .....	3.1	3.5	4.6
Capital .....	0.9	0.4	0.8
<i>Total direct</i> .....	4.0	3.9	5.4
Specific Purpose Assistance on-passed by the State .....	15.4	17.4	19.6
<b>Total Commonwealth payments</b> .....	<b>19.4</b>	<b>21.3</b>	<b>25.0</b>

(a) General purpose assistance is paid in the first instance to the State Government.

## 15.3 STATE AUTHORITY FINANCE

The financial statistics for the public sector essentially are a reclassification of information published in accounting statements of the public authorities supplemented by additional dissections of the reported transactions.

Transfers between funds and accounts within the accounting systems and transfers between public authorities are eliminated on consolidation.

Public financial enterprises such as banks and insurance companies are excluded from the statistics on the ground that combining their income or outlay on capital transactions with equivalent transactions of other public authorities would provide a less meaningful account of public sector activity.

**Classification schemes**

The two main transactions classifications used in the compilation of government finance statistics are the economic transactions framework (ETF) and government purpose classification (GPC).

The economic transactions framework categorises outlays, revenue and grants received and financing transactions according to their economic character to facilitate study of the macro-economic effect of government activity on the economy and to provide basic building blocks for grouping transactions to be incorporated into the Australian National Accounts.

The government purpose classification is used to group outlays with similar functions to facilitate study of the broad purposes of public sector spending and assessment of the effectiveness of outlays in meeting government policy objectives. To facilitate international comparisons the GPC classification closely follows the same classification principles as the United Nations 'Classifications of the Functions of Government (COFOG)'.

Details of definitions and classifications used in public finance statistics are given in *Classifications Manual for Government Finance Statistics, Australia* (1217.0).

## Receipts and financing

Details of receipts and financing transactions of South Australian State authorities have been consolidated from the accounts of the State Government departments and corporations and are classified in the following table to show the major sources of funds. The Personal Income Tax Sharing Entitlement grants are the largest revenue source of State authorities.

### State Authorities : Receipts and Financing Transactions (\$ million)

<i>Classification</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Revenue and grants received:			
Taxes, fees and fines .....	1,077.0	1,264.0	1,346.6
Net operating surplus of trading enterprises;			
Operating revenue .....	2,045.1	2,425.6	2,810.2
Operating expenditure .....	1,634.6	1,904.2	2,270.6
Property income;			
Income from public financial enterprises .....	39.3	42.0	18.4
Interest received .....	306.2	345.7	305.5
Other .....	44.1	68.4	72.4
Other revenue .....	26.3	55.2	52.5
Grants received;			
From the Commonwealth,			
For current purposes .....	2,060.6	2,073.1	2,225.9
For capital purposes .....	279.5	305.5	297.0
From local authorities .....	0.1	-	0.1
<i>Total revenue and grants received</i> .....	<i>4,243.6</i>	<i>4,675.4</i>	<i>4,857.8</i>
Financing transactions:			
Advances from the Commonwealth (net) .....	-108.7	-59.0	-129.6
Net borrowing;			
General government .....	429.4	88.4	374.0
Public trading enterprises .....	-114.2	-186.1	73.9
Deposits received (net) .....	78.9	13.4	-45.0
Decrease in investments .....	-287.2	223.7	313.6
Decrease in currency and deposits .....	231.5	125.3	-46.4
Increase in provisions .....	307.4	233.4	245.2
Equity capital .....	-	4.5	2.1
Other funds available .....	-140.7	-18.8	75.9
<i>Total financing transactions</i> .....	<i>396.6</i>	<i>424.6</i>	<i>863.6</i>
<b>Total funds available</b> .....	<b>4,640.2</b>	<b>5,100.0</b>	<b>5,721.4</b>



### State Taxation

Until the introduction of the uniform income tax scheme in 1942-43 with the Commonwealth being the sole levier of income tax, income tax was the major source of taxation receipts in South Australia. The major forms of taxation then left to the State were payroll tax, motor tax, succession and stamp duties, and land tax, but legislative changes in 1980 have subsequently reduced the levels of succession duties, land tax and gift duties. Stamp duty is payable on a wide range of instalment purchase, leasing and other lending transactions.

Commencing in 1977-78, under the new personal income tax sharing arrangements, each State was given the right to impose a surcharge or grant a rebate on personal income tax in its State. Any State surcharges or rebates would be collected or paid by the Commonwealth on behalf of the States. To date no State has imposed a surcharge or granted a rebate under the income tax sharing arrangements.

### State Authorities : Taxation (\$ million)

<i>Particulars</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Employers' payroll taxes .....	249.1	301.5	329.3
Taxes on property:			
Land taxes .....	56.7	63.7	71.9
Taxes on immovable property n.e.c. ....	1.9	2.7	3.3
Financial institutions transactions taxes .....	38.0	43.7	49.4
Stamp duties .....	176.1	229.9	199.1
Taxes on provision of goods and services:			
Excises;			
Agricultural production taxes .....	1.6	0.8	0.3
Levies on statutory corporations .....	32.6	35.1	38.7
Taxes on gambling;			
Taxes on government lotteries .....	49.8	59.8	70.3
Taxes on private lotteries .....	2.3	2.0	2.7
Casino taxes .....	11.5	14.2	15.4
Race betting taxes .....	26.9	29.5	32.6
Taxes on insurance;			
Insurance companies' contributions to fire brigades .....	30.0	31.9	35.7
Third party insurance taxes .....	2.2	2.4	2.4
Taxes on insurance n.e.c. ....	43.1	41.1	41.2
Taxes on use of goods and performance of activities:			
Motor vehicle taxes;			
Vehicle registration fees and taxes .....	85.9	88.1	100.0
Stamp duty on vehicle registration .....	47.8	59.2	65.9
Drivers licences .....	19.6	17.8	11.9
Road transport and maintenance taxes .....	0.4	0.4	0.3
Franchise taxes;			
Gas franchise taxes .....	5.2	6.1	6.7
Petroleum products franchise taxes .....	67.5	76.4	77.9
Tobacco franchise taxes .....	44.1	51.0	55.2
Liquor franchise taxes .....	36.1	41.2	40.6
Other taxes on use of goods etc. ....	1.0	1.3	1.8
Fees and fines:			
Fees from regulatory services .....	30.5	47.1	73.2
Fines .....	16.9	17.2	20.7
<i>Total taxation</i> .....	<i>1,077.0</i>	<i>1,264.0</i>	<i>1,346.6</i>

### Outlays

Outlays of State authorities are shown in the following table grouped according to whether they are current or capital. Fundamental distinction between the two rests on whether the transactions are 'used up' over a period of one year or represent assets which generate a future stream of assets.

Grants and other transfers between State authorities have been eliminated on consolidation in the following table.

State Authorities : Outlay  
(\$ million)

<i>Classification</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
<b>Current outlay:</b>			
Final consumption expenditure;			
Gross current expenditure .....	3,015.4	3,298.0	3,625.8
Offsetting receipts from sales .....	438.1	569.1	667.1
Required current transfer payments;			
Interest payments,			
To Commonwealth on advances .....	276.9	264.2	253.5
Other .....	508.7	573.9	683.4
Land rent, royalties, dividends paid .....	-	1.0	3.5
Unrequited current transfer payments;			
Subsidies paid .....	172.4	172.2	175.8
Personal benefit payments .....	96.1	84.9	101.7
Current grants,			
To non-profit institutions .....	194.8	221.1	251.7
To local authorities .....	66.0	67.1	69.4
Other current transfers .....	3.1	16.2	21.0
<i>Total current outlay</i> .....	<i>3,895.3</i>	<i>4,129.6</i>	<i>4,518.7</i>
<b>Capital outlay:</b>			
Gross fixed capital expenditure .....	629.1	822.0	874.6
Increase in stocks .....	15.5	28.7	37.6
Expenditure on land and intangible assets .....	20.5	-7.1	17.9
Capital transfer payments;			
Capital grants,			
To private sector and public financial enterprises .....	18.9	17.5	13.3
To local authorities .....	30.0	28.6	37.5
Advances paid (net);			
To public financial enterprises .....	22.4	11.6	-
To private sector .....	9.5	65.0	222.2
Other .....	-0.7	4.0	-0.5
<i>Total capital outlay</i> .....	<i>745.4</i>	<i>970.2</i>	<i>1,202.7</i>
<b>Total outlay</b> .....	<b>4,640.7</b>	<b>5,099.8</b>	<b>5,721.4</b>

The following table shows outlay of State authorities classified by purpose of public sector spending. Education accounted for 24.1 per cent of total outlay in 1989-90 and health for 17.4 per cent.

State Authorities : Outlay by Purpose  
(\$ million)

<i>Classification</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
General public services .....	191.0	196.5	222.6
Public order and safety .....	310.3	346.7	381.8
Education .....	1,192.8	1,291.1	1,377.5
Health .....	813.0	869.9	997.8
Social security and welfare .....	172.5	189.8	206.9
Housing and community amenities .....	297.1	258.8	454.7
Recreation and culture .....	144.6	134.0	181.2
Fuel and energy .....	138.5	284.1	261.2
Agriculture, forestry, fishing and hunting .....	87.1	125.7	124.7
Mining, manufacturing, construction .....	63.2	49.5	51.8
Transport and communications .....	329.9	391.9	398.0
Other economic affairs .....	61.5	67.1	70.9
Other purposes .....	839.1	894.6	992.2
<i>Total outlay</i> .....	<i>4,640.6</i>	<i>5,099.8</i>	<i>5,721.3</i>

**Further references**

Additional information may be found in the following ABS publications:

- 5503.4 *State and Local Authorities Finance, South Australia*  
 5512.0 *Government Finance Statistics, Australia*

**15.4 LOCAL GOVERNMENT FINANCE**

For the purpose of determining the scope of local government finance statistics, a local government authority is defined as:

- (a) 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) 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 rateable property within the area. A body corporate is enrolled under the name of a nominated agent; or
- (b) 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 XIII or Section 199 of the *Local Government Act 1934*).

**Revenue transactions**

Rates and government grants are the principal sources of revenue of local government authorities and represented 53.7 per cent and 18.4 per cent respectively of total receipts in 1989-90.

Details of revenue from ordinary services, as distinct from business undertakings, and loan receipts during the three years to 1989-90 are as follows.

**Local Government Authorities : Ordinary Services  
 Revenue and Loan Receipts  
 (\$ million)**

<i>Particulars</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Rates (including penalties) .....	252.1	279.3	307.9
Licences, fees and fines .....	13.9	15.9	16.4
Charges for services .....	54.8	58.8	64.2
Contributions and donations .....	6.8	6.0	4.9
Reimbursements received .....	13.5	16.8	15.1
Interest received .....	15.6	21.3	28.2
Sale of land and other fixed assets .....	20.4	26.9	27.1
Other .....	2.6	2.9	3.8
Government grants:			
General purpose .....	54.9	57.0	58.2
Specific purpose .....	53.8	47.8	47.6
<i>Total revenue</i> .....	<i>488.4</i>	<i>532.5</i>	<i>573.4</i>
Loan receipts .....	35.4	41.1	51.2
<b>Total revenue and loan receipts .....</b>	<b>523.7</b>	<b>573.5</b>	<b>624.6</b>

**Loan receipts**

Loans raised by local government authorities during 1989-90 totalled \$51.2 million for ordinary services. Most of these loans were raised with the Local Government Finance Authority.

**Outlay transactions**

A number of differences occur between the presentation of local government finance statistics and those of other levels of government. Public sector finance statistics generally are prepared on a net basis in which selected receipts are offset against relevant outlays, and vice versa, but in local government finance statistics transactions are shown as gross values and subsequently adjusted to the net basis when consolidated into the State and local government sector accounts. For this reason the tables which follow show 'current outlay on goods, services and land' rather than the net concept of final consumption expenditure. A summary of ordinary services outlay of local government authorities during the three years to 1989-90 is shown in the next table.

**Local Government Authorities : Ordinary Services, Outlay**  
(\$ million)

<i>Particulars</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
<b>Outlay on goods, services and land:</b>			
Capital;			
New fixed assets,			
Roadworks construction .....	60.1	61.2	59.9
Other .....	87.5	95.6	109.2
Land and other fixed assets .....	21.6	11.9	11.0
Current;			
General public services .....	70.9	69.8	75.6
Roadworks, maintenance .....	52.1	56.6	63.6
Other .....	173.7	200.4	219.5
<i>Total outlay on goods etc.</i> .....	<i>466.0</i>	<i>495.5</i>	<i>538.7</i>
<b>Debt charges:</b>			
Interest .....	31.4	33.5	36.4
Debt redemption .....	23.6	26.9	28.3
Levies paid to government .....	5.6	6.1	6.5
Donations paid .....	2.7	7.8	3.3
Other .....	0.1	0.1	0.1
<b>Total outlay</b> .....	<b>530.1</b>	<b>570.6</b>	<b>613.9</b>

**Electricity undertakings**

Three councils in the northern area of the State, Roxby Downs (M), Peterborough (M) and Hawker (DC) owned and operated electricity supply schemes during 1989-90, Cooper Pedy (DC) owns electricity supply equipment which the Cowell Electric Supply Co Ltd operates.

Current outlay consisting of working expenses and interest paid on loans raised for the schemes totalled \$5.2 million, gross capital formation and debt redemption principal repayments totalled an additional \$1.4 million.

Electricity undertakings are classified as trading activities in local government finance statistics and details of the transactions are not included in the ordinary services of local government authorities.

**Further references**

Additional information may be found in the following ABS publications:

- 5503.4 *State Local Authorities Finance, South Australia*
- 5502.4 *Local Government Finance, South Australia*
- 5512.0 *Government Finance Statistics, Australia*

## 15.5 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. Major interest is focused on the domestic production account and within that, gross domestic product (GDP).

Estimates of State Accounts have been prepared in recent years. These estimates are a dissection of the Australian National Accounts and in some cases have been built up using the same data sources as those used in the National Accounts; in others the dissections are based on a variety of sources ranging from those directly related, for example the economic censuses, to general indicators of activity such as population changes and household income.

A full presentation of Australian National Accounts is contained in the bulletins *Australian National Accounts, National Income and Expenditure* (5204.0) and *Quarterly Estimates of National Income and Expenditure, Australia* (5206.0) and the other publications in this series.

### State accounts

While national estimates are based on the concepts and conventions embodied in the United Nations *A System of National Accounts* (SNA) 1968, no such standard is available for sub-national (Regional/State) accounts. The national concepts generally are applicable to State Accounts but a number of conceptual and measurement issues which are important to State Accounts either do not apply or are insignificant at the national level. Most of the problems arise in the context of State gross product for the transport and communication industries where a number of conceptual views are possible. A detailed discussion of the issues surrounding the compilation of State Accounts together with a description of the available data sources and the estimation methodology are contained in the *State Accounts, Australia: Issues and Experimental Estimates* (ABS Occasional Paper 1984/4).

The fundamental concepts of gross domestic product are:

*Gross Domestic Product at Market Prices* (usually referred to as Gross Domestic Product) is the total market value of goods and services produced, after deducting the cost of goods and services used up in the production process but before deducting allowances for the consumption of fixed capital (or depreciation allowances). In concept 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 the purchase 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 gross domestic product accounted for by gross payments to factors of production. It is equivalent to gross domestic product less indirect taxes plus subsidies.

### Methodology

There are three distinct approaches which can be taken to measure gross domestic product namely:

- (1) the income approach;
- (2) the expenditure approach; and
- (3) the production approach

State gross product shown in the following table is derived using the income approach as it was not possible to prepare an expenditure-based estimate using available data sources. For example, for some States interstate trade statistics are seriously incomplete for goods and virtually non-existent for services and data for Commonwealth government final expenditure by State is not available.

State Gross Product (\$ million)			
<i>Particulars</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Wages, salaries and supplements .....	11,226	12,605	14,062
Gross operating surplus .....	8,859	10,192	11,054
<i>State Gross Product at Factor Costs</i> .....	<i>20,085</i>	<i>22,797</i>	<i>25,116</i>
Indirect taxes less subsidies .....	2,391	2,621	2,834
<i>State Gross Product at Market Prices</i> .....	<i>22,476</i>	<i>25,418</i>	<i>27,950</i>
<i>Total per head of mean population (\$)</i> .....	<i>16,054</i>	<i>17,900</i>	<i>19,518</i>
<i>Total as a percentage of national gross domestic product (per cent)</i> .....	<i>7.5</i>	<i>7.5</i>	<i>7.5</i>

#### Further references

Additional information may be found in the following ABS publications:

- 5204.0 *Australian National Accounts, National Income and Expenditure*
- 5206.0 *Quarterly Estimates of National Income and Expenditure, Australia*
- 5211.0 *Australian National Accounts, Gross Product by Industry*
- 5220.0 *Australian National Accounts, State Accounts*

## Chapter 16

# PRIVATE FINANCE

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## 16.1 BANKING AND CURRENCY

### Banking

The banking system in Australia in 1990 comprised a central bank (the Reserve Bank of Australia); thirty-seven banks (one owned by the Commonwealth Government, three by State Governments, and thirty-three privately owned); the Commonwealth Development Bank and the Australian Resources Development Bank (specialist banks, owned respectively by the Commonwealth Government and a consortium of the four major banks).

Sixteen banks, plus the Reserve Bank, have branches in South Australia.

The conduct of banking business in Australia is governed by the *Banking Act 1959* (Cwlth). Amendments to the Banking Act late in 1989 gave the Reserve Bank explicit powers for prudential supervision of banks. They also provided the Reserve Bank with greater power to seek information from banks and to investigate the affairs of banks.

Other important amendments to the Banking Act removed the distinctions between trading and savings banks, and they formally replace the Statutory Reserve Deposit requirement on trading banks with a new non-callable deposit requirement applicable to all banks and placed greater emphasis on prudential supervision of banks and provided a formal statutory foundation for this supervision.

Additional historical information on banking is contained in the 1986 edition of the *South Australian Year Book* and the *Year Book Australia*.

### Reserve Bank of Australia

The Reserve Bank of Australia functions as a central bank, controls the Australian note issue and acts as banker to the Commonwealth and some of the States. As part of its responsibility under the Banking Act to protect the interests of bank depositors, the Reserve Bank conducts prudential supervision of banks. The ultimate responsibility for sound management of a bank resides with that bank's board and management but in consultation with banks, the Reserve Bank maintains a framework of prudential standards within which a bank must operate. The standards cover a bank's capital, liquidity management, large credit exposures and various other aspects of its operations.

### Commonwealth Banking Corporation

The Commonwealth Banking Corporation was established under the *Commonwealth Banks Act 1959* (Cwlth). It is the controlling body for the Commonwealth Bank and the Commonwealth Development Bank.

### Commonwealth Development Bank

The Commonwealth Development Bank is a supplementary source of finance for primary production and for the establishment or development of small business undertakings. It does not compete with conventional lenders, but provides financial help when finance is not otherwise available on suitable terms.

**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 bank loans but also by direct lending and equity participation.

**Primary Industry Bank of Australia Limited**

The Primary Industry Bank of Australia Limited was established under the authority of the *Primary Industry Bank Act 1977* (Cwlth). An unrestricted national banking authority was granted to the bank on 30 June 1987, and the Primary Industry Bank Act was repealed. The bank has since been able to expand its original objective of refinancing loans to primary producers to include new rural loans as well as commercial and property loans.

The Adelaide Branch opened in November 1987 giving the bank a presence in all mainland capital cities in Australia.

**Banks originating in South Australia**

The Savings Bank of South Australia commenced operations on 11 March 1848 following the enactment of an ordinance in 1847. It merged with the State Bank of South Australia on 1 July 1984.

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 opened for business on 11 December 1865. The Australia and New Zealand Banking Group Ltd effectively took over the operations of The Bank of Adelaide from 1 October 1980.

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.

**Branches and agencies**

Of the thirty-seven trading banks which operate in Australia, the sixteen banks listed below conduct business in South Australia:

*Government banks*

Commonwealth Bank of Australia	State Bank of South Australia
--------------------------------	-------------------------------

*Private banks*

Australia and New Zealand Banking Group Limited	Banque Nationale de Paris
Westpac Banking Corporation	Challenge Bank Limited
National Australia Bank Limited	Chase AMP Bank Limited
Advance Bank Australia Limited	Citibank Limited
Bank of New Zealand	National Mutual Royal Bank Limited
Bank of Singapore (Australia) Limited	NatWest Australia Bank Limited
	Primary Industry Bank of Australia Limited
	Standard Chartered Bank Australia Limited



## Banks : Branches and Agencies at 30 June 1990

<i>Banks</i>	<i>Branches</i>	<i>Agencies</i>
Commonwealth Bank of Australia .....	75	474
State Bank of South Australia .....	176	305
Australia and New Zealand Banking Group ....	132	89
Westpac Banking Corporation .....	95	8
National Australia Bank .....	85	11
Other Banks .....	12	-
<i>Total - Metropolitan area</i> .....	<i>341</i>	<i>507</i>
<i>Country</i> .....	<i>234</i>	<i>380</i>
<b>Total State</b> .....	<b>575</b>	<b>887</b>

The State Bank of South Australia has branches in the Northern Territory, Brisbane and Cairns. It also has branches in New York and London, with offices in Chicago, Los Angeles and Hong Kong. In June 1990 the United Banking Group in New Zealand became part of the State Bank Group.

Banks : Balance of Deposits and Advances to Customers Accounts<sup>(a)</sup>  
(\$ million)

<i>Year</i>	<i>Depositors balances</i>			<i>Loans, advances and bills discounted</i>
	<i>Bearing interest</i>	<i>Not bearing interest</i>	<i>Total</i>	
1986 .....	6,129	591	6,720	n.a.
1987 .....	6,563	611	7,174	n.a.
1988 .....	7,629	700	8,329	n.a.
1989 .....	8,600	722	9,322	n.a.
1990 .....	11,274	800	12,074	13,771

(a) Average of weekly figures for month of June.

*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.

*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 1908. The State Bank of South Australia assumed this role after merger with the Savings Bank of South Australia on 1 July 1984. The Commonwealth Bank of Australia and some private banks provide similar services at some schools.

*Currency*

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 Note Printing Australia, a division of the Reserve Bank in Melbourne. Notes in circulation are of the denominations \$5, \$10, \$20, \$50 and \$100. A plastic \$10 commemorative note was released in January 1988 to coincide with the Bicentennial. In May 1990, the Bank announced that a new series of currency notes would be issued, commencing with the

\$5 note. The new series will be printed on plastic, and incorporate optically variable devices like that pioneered on the commemorative \$10 note. Coins in circulation are 1 cent and 2 cent (bronze) and 5, 10, 20, 50 cents (cupro-nickel), \$1 and \$2. The \$1 and \$2 notes were replaced by coins in 1984 and 1988 respectively.

## 16.2 OTHER PRIVATE FINANCE

### Australian Stock Exchange 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. One hundred years later, the six State capital city exchanges were amalgamated into one national Exchange, the Australian Stock Exchange Limited (ASX), which commenced business on 1 April 1987. The ASX has transformed the share market industry through the development of computer trading. The hubbub of the trading floor disappeared in Adelaide on 31 August 1990. On that date, the trading floor in Adelaide closed, and all stocks were incorporated into the computer trading system.

### New fixed capital expenditure

Estimates of capital expenditure are obtained from a sample of private enterprises other than in the agriculture and community services industries. State dissections are achieved by allocating expenditure to the State where the assets have or will be used.

*New fixed capital expenditure* refers to expenditure on new fixed tangible assets including major improvements, alterations and additions.

Further details are available in the quarterly bulletin *State Estimates of Private New Capital Expenditure* (5646.0).

### Private New Fixed Capital Expenditure (\$ million)

Period	Selected industry			Total	Type of asset	
	Manufac- turing	Finance, property and business services	Other selected industries		New building and structures (a)	Other new capital equipment
1987-88 ..	656	365	819	1,840	517	1,323
1988-89 ..	628	429	663	1,721	594	1,126
1989-90 ..	757	458	523	1,738	626	1,112

(a) Includes mine development.

### Building societies

The operations of building societies in South Australia are regulated by the *Building Societies Act 1975* which is administered by the Commissioner of Corporate Affairs, with whom they must be registered. There are two categories of building society in South Australia - permanent and terminating (Starr-Bowkett) societies. Five Starr-Bowkett societies operate in South Australia and are expected to terminate by 1995.

A permanent building society is an organisation that has not by its rules any fixed date or certain event or result when it is to terminate; is authorised to accept money on deposit; and operates on a cooperative basis by borrowing predominantly from its members and providing finance to its members principally in the form of housing loans.

More detailed statistics are available in the annual bulletin *Permanent Building Societies: Assets, Liabilities, Income and Expenditure* (5632.0).

The statistics below summarise information collected from the five permanent building societies balancing within the 1988-89 and 1989-90 financial years.

Permanent Building Societies : Liabilities and Assets  
(\$'000)

<i>Liabilities</i>	1988-89	1989-90	<i>Assets</i>	1988-89	1989-90
Share capital and reserves:			Financial assets:		
Share capital .....	1,227,774	1,335,938	Placements and deposits .	112,818	90,234
Reserves .....	75,789	81,924	Bills, bonds and other securities .....	402,012	396,221
Borrowings .....	758,161	543,577	Loan outstandings .....	1,496,708	1,411,585
Other liabilities .....	29,925	34,979	Cash, accounts receivable and other financial assets	25,485	34,973
			Other assets .....	54,626	63,405
<i>Total liabilities</i> .....	<i>2,091,649</i>	<i>1,996,418</i>	<i>Total assets</i> .....	<i>2,091,649</i>	<i>1,996,418</i>

Permanent Building Societies : Income and Expenditure  
(\$'000)

<i>Expenditure</i>	1988-89	1989-90	<i>Income</i>	1988-89	1989-90
Interest on:			Income and interest from:		
Shares .....	129,854	157,894	Loans .....	195,100	238,573
Deposits .....	56,495	69,693	Deposits .....	12,682	5,492
Loans .....	16,619	28,496	Income from holdings of securities .....	51,659	60,746
Wages and salaries .....	23,774	23,859	Other income .....	19,992	16,316
Administrative expenses ..	18,929	17,681			
Other expenses .....	19,346	16,388	<i>Total income</i> .....	<i>279,433</i>	<i>321,127</i>
<i>Total expenditure</i> .....	<i>265,017</i>	<i>314,011</i>			

## Credit Unions

Credit Unions are registered under the *Credit Unions Act 1989* which is administered by the Commissioner of Corporate Affairs. Credit Unions operate on a cooperative basis by predominantly borrowing from and providing finance to their own members.

The following table shows details of Credit Unions' assets and liabilities. The figures are aggregates of returns submitted by Credit Unions for their relevant accounting periods closing on various dates during the financial years shown.

Credit Unions			
Particulars	1987-88	1988-89	1989-90
NUMBER			
Societies .....	20	18	17
Members at end of period .....	216,472	229,557	231,539
\$'000			
Income:			
Interest on loans to members .....	96,618	102,297	121,015
Other .....	17,591	19,675	24,230
Total .....	114,210	121,972	145,245
Expenditure:			
Interest on deposits .....	65,447	67,258	87,709
Other .....	44,186	48,936	52,120
Total .....	109,633	116,194	139,829
Assets:			
Financial:			
Loan outstanding .....	546,000	592,281	647,931
Cash on hand .....	3,609	4,703	3,964
Placements and deposits .....	59,117	45,743	94,917
Securities .....	14,805	16,692	10,570
Other financial .....	19,624	15,368	16,395
Other .....	21,515	22,888	26,295
Total .....	664,671	697,674	800,074
Liabilities:			
Share capital and reserves:			
Paid-up share capital .....	1,471	1,695	1,741
Reserves .....	24,747	30,499	36,118
Borrowings:			
Deposits .....	623,833	639,975	743,500
Other .....	9,170	19,659	11,740
Other .....	5,450	5,845	6,974
Total .....	664,671	697,674	800,074

## Finance commitments

Details of personal, commercial and lease finance are provided by banks, insurance companies, finance companies, superannuation funds and other financial corporations registered under the *Financial Corporations Act 1974* (Cwlth). Details of personal and lease finance are also provided by permanent building societies and credit unions.

Finance companies are incorporated companies mainly engaged in providing to the general public, personal loans, wholesale finance, factoring, other consumer and commercial loans, financial leasing of business plant and equipment and bills of exchange. A company is mainly engaged in providing these credit facilities if 50 per cent or more of its assets consist of balances outstanding with respect to these types of financing, or if 50 per cent or more of its income is derived from such types of financing.

Particulars of housing finance for owner occupation are not included in personal, commercial and lease finance; refer pages 168-9.

## Personal finance

Personal loans comprise all loans to persons and are used predominantly for the purchase of consumer durables; loans for the purchase of housing are excluded.

The following table shows finance commitments made by significant lenders to individuals for their private use. Credit Unions accounted for \$246 million in total personal finance commitments during 1989-90, nearly 90 per cent of the 'other lenders' category.

Personal Finance Commitments  
(\$ million)

Purpose of commitment	1988-89			1989-90		
	Banks	Finance companies	Other lenders	Banks	Finance companies	Other lenders
Commitments under fixed loan facilities:						
Purchase of:						
Motor vehicles .....	161.5	197.2	81.0	115.7	220.8	100.6
Boats, caravans and trailers .....	8.7	4.0	4.9	6.4	3.3	4.4
Household and personal goods .....	10.0	8.5	16.0	10.6	n.p.	n.p.
Land and dwellings (a) .....	46.1	8.1	27.6	29.1	5.0	22.9
Travel and holidays .....	8.5	3.1	8.9	6.5	2.6	8.6
Debt consolidation .....	27.1	9.0	31.9	22.8	6.5	29.3
Refinancing .....	47.8	11.5	8.5	65.2	12.1	8.3
Other .....	126.3	20.7	59.4	102.8	n.p.	n.p.
Commitments under revolving credit facilities:						
New and increased credit limits ..	514.1	45.9	38.3	555.9	58.6	37.8
<i>Total personal finance commitments</i>	<i>950.1</i>	<i>308.0</i>	<i>276.5</i>	<i>914.9</i>	<i>328.3</i>	<i>282.5</i>

(a) Includes alterations and additions.

Commercial finance

Commercial finance covers finance commitments made by significant lenders to government, private and public enterprises, non-profit organisations and to individuals for investment and business purposes.

Commitments under revolving credit facilities are distinctive in that a borrowing limit is set for a specific period and during that time, any amount may be borrowed up to that limit. Most importantly, any repayments of principal increase the amount of credit available.

Commercial Finance Commitments  
(\$ million)

Purpose of commitment	1988-89			1989-90		
	Banks	Finance companies	Other lenders	Banks	Finance companies	Other lenders
Commitments under fixed loan facilities:						
Erection of buildings .....	143.8	244.0	11.6	385.2	164.7	10.9
Purchase of real estate .....	334.4	191.1	8.7	293.7	199.4	2.0
Rural property .....	104.2	1.8	27.7	70.7	1.1	2.4
Wholesale finance .....	52.7	80.2	0.2	25.3	95.1	32.4
Purchase of plant and equipment ..	113.3	153.5	6.2	121.9	152.3	2.8
Refinancing .....	199.5	7.7	8.1	286.7	2.5	3.4
Other .....	830.2	268.9	17.1	1,224.0	320.9	2.1
Commitments under revolving credit facilities:						
New and increased credit limits ..	4,406.2	60.5	13.7	3,480.6	64.7	282.7
<i>Total commercial finance commitments</i>	<i>6,184.5</i>	<i>1,007.7</i>	<i>93.3</i>	<i>5,888.2</i>	<i>1,000.6</i>	<i>338.6</i>

*Lease finance*

A finance lease refers to the leasing of tangible assets under an agreement which transfers from the lessor to the lessee substantially all the risks and benefits incident to ownership of the asset without actually transferring legal ownership.

The following table shows lease finance commitments made by significant lenders to private and public enterprises.

Value of Goods Under New Finance Lease Commitments  
(\$ million)

Particulars	1988-89			1989-90		
	Banks	Finance companies	Other lenders	Banks	Finance companies	Other lenders
Motor cars .....	28.2	151.5	3.4	31.3	142.1	1.8
Other motor vehicles .....	28.4	61.5	5.6	18.4	54.7	-
Construction, earthmoving and agricultural equipment .....	12.1	18.6	-	14.6	13.5	-
Automatic data processing equipment and office machines .....	10.0	18.9	39.4	17.5	14.4	49.9
Shop and office furniture and equipment .....	13.5	24.1	-	13.2	20.1	-
Other .....	47.7	49.5	-	25.2	28.6	-
<i>Total</i> .....	<i>139.9</i>	<i>324.0</i>	<i>48.5</i>	<i>120.3</i>	<i>273.4</i>	<i>51.7</i>

**Merchant banks**

The first Australian merchant bank was formed in Melbourne in 1949, but it was not until the late 1960s that merchant banks established themselves in the Australian marketplace as a separately identifiable group.

In 1972, Australian merchant banks, with a common interest in the bill market, formed the Accepting Houses Association of Australia (AHA). This became the Australian Merchant Bankers Association in 1979 when the AHA merged with the Issuing Houses Association of Australia to represent the wider interests of merchant banks.

Merchant banks operate as intermediaries in the professional sector of the capital market and have been responsible for a number of important changes in the Australian financial system. These include the development of the commercial bill market and expansion of the market for promissory notes and certificates of deposit. They have also enabled the expansion of domestic activities through a more widespread access to overseas funds.

Merchant banks are strongly involved in the short-term money market, being largely responsible for the unofficial market overtaking the official market in size during the early 1970s. Their dealings with the Stock Exchange include the underwriting of equity issues, management of investment portfolios and acting as principal in bonds. Merchant banks also provide advice relating to mergers and takeovers, financial re-organisations and planning for expansion.

In 1990 ownership guidelines for dealers were amended to remove the requirement for a spread of ownership and the restriction on foreign ownership. Two new authorisations were announced, bringing the number of authorised dealers to ten.

Merchant banks are predominantly regulated and supervised by the State Corporate Affairs Commission. The *Financial Corporations Act 1974* (Cwlth) requires them to be registered as Money Market Corporations. In addition they are required to be licensed under the Securities Industry Code in each State in order to deal in or advise on securities.

**Further  
references**

Additional information may be found in the following ABS publications:

- 5609.0 *Housing Finance for Owner Occupation, Australia*
- 5616.0 *Finance Companies: Assets, Liabilities, Income and Expenditure, Australia*
- 5618.0 *Credit Co-operatives: Assets, Liabilities, Income and Expenditure, Australia*
- 5625.0 *Private New Capital Expenditure, Australia, Actual and Expected Expenditure, Preliminary*
- 5626.0 *Private New Capital Expenditure, Australia, Actual and Expected Expenditure*
- 5632.0 *Permanent Building Societies: Assets, Liabilities, Income and Expenditure, Australia*
- 5642.0 *Personal Finance, Australia*
- 5643.0 *Commercial Finance, Australia*
- 5644.0 *Lease Finance, Australia*

## *Regional Studies*

# **MURRAY LANDS**

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### **Size and location**

The region covered by this study is defined as the Murray Lands Statistical Division. It consists of two subdivisions, Riverland in the north and Murray Mallee in the south. The location and boundaries of the Murray Lands Statistical Division are shown on the map on page 158.

Murray Lands comprises municipalities of the towns of Renmark and Monarto and district councils of Barmera, Berri, Browns Well, Coonalpyn Downs, Karoonda-East Murray, Lameroo, Loxton, Mannum, Meningie, Morgan, Murray Bridge, Paringa, Peake, Pinnaroo, Ridley, Truro and Waikerie. It occupies an area of 4,762,300 hectares.

At 30 June 1990 the estimated population of Murray Lands was 67,836 persons.

### **Topography and soils**

The area is generally flat to undulating, apart from the western portion of the Truro District Council which includes parts of the foothills of the Mount Lofty Ranges.

The main topographical feature of Murray Lands is the River Murray which enters the region from Victoria and flows into Lake Alexandrina. Between the Victorian border and Overland Corner the river has created a valley 30 to 40 metres in depth and averaging 10 kilometres in width. Between Overland Corner and Mannum there is a low gorge averaging one and a half kilometres in width where the river has cut through marine limestone deposits. This gives way to a wider flood plain in the lower reaches between Murray Bridge and Wellington.

Barrages built across the southern part of Lake Alexandrina and the river at Goolwa, prevent entry of sea water so that Lakes Alexandrina and Albert are freshwater.

The area north-west of the Tailem Bend to Pinnaroo road contains numerous east-west oriented red dunes of aeolian origin. The beach dune ridge system extends from the lower South East into the southern portion of the region.

The Coorong Lagoon and Younghusband Peninsula form the entire coastline of the region and are the most recent of the sand dune and lagoon formations. Younghusband Peninsula separates the Coorong from the ocean and comprises a continuous ridge of sand dunes up to two kilometres wide and 50 metres high.

Several features of soils in the Murray Lands have wide significance. They include stoniness, wind erosion hazards, salinity, trace element deficiencies, and water repellence.

Prevalence of shallow stony soils is a feature of the western half. Much of the land there has never been cultivated because of the very thin layer of earthy material over a thick bed of calcrete. In places where the calcrete is more fragmentary and the rainfall is sufficient for cropping, stony soils have been made arable with the help of stone rakes.

The sandy soils have certain advantages for cultivation and their clearing was helped by the rather scanty cover of native vegetation. Wind erosion of these soils is almost inevitable once the soil becomes bare. This frequently happens with cereal-growing. Many sand ridges in the agricultural areas show evidence of serious movement of soil by the strong winds common in the region.

Concentrations of readily soluble salts are a natural feature of subsoils in this region, except for deep sands. This salinity is generally not serious enough to deter dry land farming, but it is a major hazard for irrigated farming. Fruit production under irrigation



now relies heavily on drainage works to control salinity. Small areas of highly saline land occur in the north, between Berri and the State boundary, and in the south, between Tintinara and Salt Creek.

Soil deficiencies of trace elements have retarded plant and animal production in several parts of the Murray Lands, especially Coonalpyn Downs in the subcoastal zone. Four elements are involved: copper, cobalt, manganese, and zinc. Techniques have been developed to cope with these deficiencies.

Water repellence is a condition associated with the most sandy soils. It was first recognised in this region near Tintinara after some years of pasture growth on deep sands. Water penetration may be reduced to the point where water fails to soak into the ground, apparently because the soil pores normally open to movement of air and water have become blocked by organic materials, probably of fungal origin. Periodical cultivation is the only reliable way of dealing with this complaint.

## Meteorology

The climate of the Murray Lands region ranges from arid in the area north of the Murray River to temperate about the area adjacent to the Mount Lofty Ranges and south of a line extending from Wellington to Keith. The climate of the area between these two extremes can be classified as semi-arid.

Annual average rainfall decreases with increasing distance from the coast from a maximum of more than 500 millimetres in the south to less than 250 millimetres in the far north of the region. Annual averages of about 500 millimetres are also recorded in parts of the western borders of the region which extend into the Mount Lofty and Flinders Ranges. However, the influence of these ranges does not extend far into the region.

Most of the region has a winter rainfall maximum which is particularly pronounced in the southern parts. The arid area to the north of the Riverland has a uniform distribution of rainfall throughout the year.

In the Murray Mallee, the rainfall received during the period November to March is normally too low to be of any benefit for agricultural purposes. The growing season generally extends from May to September, but is slightly longer in the south and west of this district. The agricultural growing season in the Riverland extends from May to August in the south, but is generally extremely limited north of the Murray.

Average daily maximum temperatures range from 25°C to 33°C in the summer with the highest temperatures being recorded in northern parts of the region. Extreme maximum temperatures of over 46°C have been recorded in several centres. During winter average maximum temperatures range from 15°C to 17°C.

Mean daily minimum temperatures range from 13°C to 17°C in summer and from 4°C to 6°C in winter. Extreme minimum temperatures of less than minus 4°C have been recorded.

Light frosts are often experienced between April and October in most parts of the region. However, heavy frosts are generally confined to the period between May and September.

A strong south-west to south sea breeze is a major feature of the wind regime over the region during the summer months. The sea breeze occasionally reaches as far north as the Riverland during hot spells.

## Population

Murray Lands population at 30 June 1990 was estimated at 67,836 which is 4.7 per cent of the State population. The population has risen by over 7,000 (nearly 12 per cent) since 1976.

The major population centres in Murray Lands include Murray Bridge (population 16,092 at 30 June 1990), Renmark (7,895), Loxton (7,288) and Berri (7,222).

The following table shows population figures since 1976 for statistical local areas in the Murray Lands.

## Estimated Resident Population, Murray Lands and South Australia

Statistical local area	At 30 June			
	1976	1981	1986	1990
Barmera (DC) .....	3,853	4,163	4,266	4,433
Berri (DC) .....	5,620	6,321	6,584	7,222
Browns Well (DC) .....	411	397	368	331
Coonalypn Downs (DC) .....	1,947	1,885	1,809	1,692
Karoonda-East Murray (DC) .....	1,833	1,679	1,485	1,355
Lameroo (DC) .....	1,716	1,555	1,462	1,380
Loxton (DC) .....	6,443	6,946	7,048	7,288
Mannum (DC) .....	3,104	3,074	3,150	3,161
Meningie (DC) .....	4,274	4,068	3,931	4,078
Morgan (DC) .....	1,150	1,233	1,298	1,248
Murray Bridge (DC) .....	12,925	13,933	15,207	16,092
Paringa (DC) .....	1,402	1,446	1,448	1,638
Peake (DC) .....	1,025	1,045	999	922
Pinnaroo (DC) .....	1,510	1,419	1,346	1,247
Renmark (M) .....	6,354	6,873	7,432	7,895
Ridley (DC) .....	1,790	1,826	2,041	2,136
Truro (DC) .....	561	623	725	757
Waikerie (DC) .....	4,486	4,541	4,681	4,755
Unincorporated .....	243	240	240	206
<i>Total Murray Lands</i> .....	<i>60,647</i>	<i>63,267</i>	<i>65,520</i>	<i>67,836</i>
<b>South Australia</b> .....	<b>1,274,020</b>	<b>1,318,769</b>	<b>1,382,550</b>	<b>1,439,157</b>

## Housing

The number of the occupied private dwellings in the Murray Lands as a proportion of the State total has remained steady at 4.5 per cent during the 1976-86 period.

## Occupied Private Dwellings, Murray Lands and South Australia

Statistical local area	Census 30 June		
	1976	1981	1986
Barmera (DC) .....	1,131	1,300	1,373
Berri (DC) .....	1,608	1,821	2,094
Browns Well (DC) .....	106	103	105
Coonalypn Downs (DC) .....	532	539	557
Karoonda-East Murray (DC) .....	500	489	487
Lameroo (DC) .....	488	475	485
Loxton (DC) .....	1,869	2,083	2,259
Mannum (DC) .....	975	1,024	1,139
Meningie (DC) .....	1,139	1,212	1,265
Morgan (DC) .....	368	394	447
Murray Bridge (DC) .....	3,816	4,410	5,080
Paringa (DC) .....	376	447	454
Peake (DC) .....	284	295	295
Pinnaroo (DC) .....	434	438	441
Renmark (M) .....	1,910	2,138	2,384
Ridley (DC) .....	547	614	706
Truro (DC) .....	178	201	248
Waikerie (DC) .....	1,334	1,429	1,557
Unincorporated .....	64	69	58
<i>Total Murray Lands</i> .....	<i>17,659</i>	<i>19,481</i>	<i>21,434</i>
<b>South Australia</b> .....	<b>390,514</b>	<b>432,123</b>	<b>472,825</b>

There were 272 houses and 54 other dwellings commenced in the Murray Lands during 1990, compared to 308 houses and 69 other dwellings in 1989.

## Employment

The following table shows the industry of the employed population in Murray Lands and South Australia at the 1986 Census. Rural industries predominate in Murray Lands. Of the employed persons in Murray Lands, agriculture, forestry and fisheries accounted for 35.3 per cent of males and 27.1 per cent of females: proportions for the State were 8.1 per cent and 5.7 per cent respectively.

Industry of Employed Persons: Murray Lands and South Australia  
30 June 1986

Industry	Murray Lands		South Australia	
	Number	Per cent	Number	Per cent
MALES				
Agriculture, forestry, fishing etc. . . . .	5690	35.3	27,717	8.1
Mining . . . . .	51	0.3	4,372	1.3
Manufacturing . . . . .	1,932	12.0	68,393	20.1
Electricity, gas and water . . . . .	620	3.8	9,098	2.7
Construction . . . . .	1,033	6.4	30,103	8.9
Wholesale and retail trade . . . . .	2,436	15.1	61,288	18.0
Transport and storage . . . . .	815	5.1	22,008	6.5
Communication . . . . .	324	2.0	8,430	2.5
Finance, business services etc. . . . .	586	3.6	25,211	7.4
Public administration, defence . . . . .	484	3.0	18,787	5.5
Community services . . . . .	1,128	7.0	38,959	11.5
Entertainment, recreation . . . . .	541	3.4	14,910	4.4
Other and not stated . . . . .	482	3.0	10,820	3.2
<i>Total employed males . . . . .</i>	<i>16,122</i>	<i>100.0</i>	<i>340,096</i>	<i>100.0</i>
FEMALES				
Agriculture, forestry, fishing etc. . . . .	2,818	27.1	13,146	5.7
Mining . . . . .	2	0.0	724	0.3
Manufacturing . . . . .	578	5.6	21,958	9.6
Electricity, gas and water . . . . .	50	0.5	713	0.3
Construction . . . . .	158	1.5	4,742	2.1
Wholesale and retail trade . . . . .	2,155	20.8	47,678	20.9
Transport and storage . . . . .	152	1.5	4,139	1.8
Communication . . . . .	157	1.5	2,735	1.2
Finance, business services etc. . . . .	512	4.9	23,468	10.3
Public administration, defence . . . . .	236	2.3	9,029	3.9
Community services . . . . .	2,435	23.5	73,457	32.1
Entertainment, recreation . . . . .	810	7.8	19,822	8.7
Other and not stated . . . . .	317	3.1	7,051	3.1
<i>Total employed females . . . . .</i>	<i>10,380</i>	<i>100.0</i>	<i>228,662</i>	<i>100.0</i>

In Murray Lands 54.4 per cent of persons aged 15 and over had an annual personal income of less than \$9,000 (compared to 48.1 per cent in South Australia) and 13.1 per cent had an annual personal income of more than \$18,000 (compared to 20.1 per cent for South Australia).

Annual Personal Income: Murray Lands and South Australia  
30 June 1986

Annual personal income	Murray Lands		South Australia	
	Persons	Per cent	Persons	Per cent
Nil .....	4,557	9.6	99,682	9.5
Less than \$2,001 .....	2,628	5.5	51,419	4.9
\$2,001 - \$4,000 .....	2,782	5.8	46,388	4.4
\$4,001 - \$6,000 .....	10,048	21.1	193,505	18.4
\$6,001 - \$9,000 .....	5,931	12.4	114,240	10.9
\$9,001 - \$12,000 .....	4,960	10.4	92,505	8.8
\$12,001 - \$15,000 .....	4,153	8.7	85,434	8.1
\$15,001 - \$18,000 .....	3,687	7.7	100,039	9.5
\$18,001 - \$22,000 .....	2,675	5.6	84,604	8.1
\$22,001 - \$26,000 .....	1,401	2.9	46,734	4.5
\$26,001 - \$32,000 .....	1,208	2.5	42,903	4.1
\$32,001 - \$40,000 .....	562	1.2	21,582	2.1
\$40,001 - \$50,000 .....	169	0.4	8,054	0.8
\$50,001 and over .....	236	0.5	7,230	0.7
Not stated .....	2,664	5.6	55,540	5.3
<i>Total population aged 15 years and over .....</i>	<i>4,7661</i>	<i>100.0</i>	<i>1,049,859</i>	<i>100.0</i>

## Education

### Schools

At 1 July 1990, there were 12,469 students attending 65 schools in the Murray Lands region. Over 41 per cent of these students were aged 12 years and over, with 9.1 per cent aged 16 years and over.

The Education Department was responsible for 57 schools, including six secondary schools, seven area schools, two special schools and one school for Aboriginal persons. The non-government schools group comprised five Catholic and three Lutheran primary schools.

### Libraries

Public libraries are located at Barmera, Berri, Mannum, Murray Bridge and Waikerie. There are also community/school libraries at Karoonda and Pinnaroo.

### Museums

There are a number of historical museums and village settlements located in the Murray Lands region including the following:

- Lake Avenue Gallery and Museum at Barmera;
- Overland Corner Hotel Museum, which once provided hotel and horse changing facilities for stage coaches;
- Wellington Court House, Stables and Residence at Wellington;
- Loxton Historical Village;
- Ramco Village settlement which contains relics of early Australian settlement at Ramco; and
- Old Tailem Town Historical Village, at Tailem Bend.

## Health facilities

In Murray Lands there are public hospitals at Barmera, Berri, Karoonda, Lameroo, Loxton, Mannum, Murray Bridge, Pinnaroo, Renmark and Tailem Bend.

There are branches of the Red Cross Society in several towns and St John Ambulance centres are located at Barmera, Berri, Karoonda, Lameroo, Loxton, Murray Bridge, Pinnaroo, Renmark, Swan Reach and Waikerie.

The Mothers and Babies Health Association fulfils an important role in the community life of the region particularly servicing the more isolated areas. Centres are at Barmera, Berri, Murray Bridge, Renmark and Waikerie. Visits are made to many other areas within the region on a regular basis.

### **Welfare facilities**

The Department of Family and Community Services provides welfare services to the region through its offices at Berri, Murray Bridge, Renmark and Waikerie.

### **Rural industries**

The early development of agriculture in Murray Lands was influenced significantly by the River Murray as a transport artery, as a source of water for irrigation and as a source of fertile low lying areas to be reclaimed and settled.

When, in 1886, a rail link between Adelaide and Melbourne *via* Nairne, Murray Bridge and Bordertown was opened, the mallee lands east of the river which had been virtually unoccupied became more accessible and farmers selected the more attractive land along the railway. The taking-up and clearing of land in the Murray Mallee was also stimulated by the new system of tenure which enabled individuals to lease the land with the right of purchase from the Government or to secure land on perpetual lease.

Until the 1939–45 War, the southern and eastern parts of the region were sparsely populated largely because some areas were found to be infertile. This pattern of very limited land use changed dramatically when previously unproductive areas were successfully developed as pastures with the addition of trace elements and fertilisers.

Agricultural activity varies widely throughout the region because of the influence of differing climatic and geographic conditions. The lushness of the Murray River Valley, incorporating large areas of irrigated orchards, vineyards and pasture, provides the major contrast in the regional landscape. In the drier Murray Mallee area the chief agricultural activities are sheep and beef raising, cereal growing with dairying being significant in the Lower Murray districts.

The Murray Lands Statistical Division accounts for 99.9 per cent of the State's citrus fruit production, 57.9 per cent of grape production and 95.2 per cent of apricot production. The Division also accounts for 13.6 per cent of the State's sheep, 9.0 per cent of the meat cattle, 28.5 per cent of the dairy cattle and 26.7 per cent of the State's pigs.

### **Irrigation**

Principal irrigation areas in South Australia are along the River Murray.

The real foundation of the irrigation industry in South Australia was laid by the two Chaffey brothers who had great practical experience in the artificial application of water in arid and semi-arid areas in California and Canada. They arrived in 1886 to establish an irrigation area in Victoria, but were unable to reach an agreement with the Victorian Government. Persuaded to come to South Australia, they eventually commenced their operations at a location which was to become the town of Renmark.

The major factors in the growth of irrigation were the establishment of Government irrigation areas, the development of soldier settlements after the 1914–18 War, the establishment of the Loxton irrigation area after the 1939–45 War and the rapid private Riverland irrigation development after 1950. Many of the irrigation localities such as Berri, Barmera and Waikerie became important townships on the river.

Under the terms of the River Murray Waters Agreement between the Commonwealth Government and the States of New South Wales, Victoria and South Australia, this State is entitled to receive a minimum flow of 1,845,000 megalitres per year. This allocation necessarily forms the basis of planning the utilisation of river water for both irrigation and water supply purposes even though flows may exceed the entitlement at times.

Because of the river's characteristics two main types of irrigation are used:

- (a) high lift pumping over the valley sides onto the plain; and
- (b) gravity flood irrigation in the reclaimed swamp areas in the lower reaches of the Murray. (This method is, of course, limited to areas which are below river level.)

The economics of comparatively high lift pumped water supply limits the bulk of irrigation to high return horticultural plantings (vines, citrus, vegetables) as opposed to cereal crops, etc.

Salinity levels in the River Murray have been increasing in recent years, one of the main reasons being that surplus irrigation water raises the level (water table) of the naturally high saline ground water, thus increasing its flow into the river.

Salinity levels above 850 E.C. (electrical conductivity) units damage some irrigated plantings, causing loss of yields, and over an extended period trees or vines may die. The conversion to undertree irrigation lessens the effect of salinity on plantings but the problem of surplus water disposal still exists.

A large-scale scheme is being developed to eliminate the problem of saline drainage. It involves collecting the excess water from several large irrigation areas and pumping it to an evaporation basin at Noora, some distance from the river. This reduces the seepage of saline water back into the river, thereby lowering salinity levels and lessening further deterioration of river quality.

Extensive work is being carried out by the Engineering and Water Supply Department in Government Irrigation Areas to convert the existing open channel irrigation systems to piped systems. This work is now 65 per cent complete. Pipelined areas provide advantages to irrigators through improved supply conditions and reduced costs, and the River Murray System benefits from reduced drainage accessions.

The Murray-Darling Basin Commission funded construction of the Woolpunda Salt Interception Scheme commissioned in December 1990. The scheme consists of 49 bores located on each side of the River Murray upstream of Waikerie, which intercept highly saline groundwater that would otherwise flow naturally into the river. This water is then pumped to an evaporation basin west of Waikerie.

### *Horticulture*

At 31 March 1990, orchards and small and berry fruit in the Murray Lands Statistical Division occupied 12,465 hectares (74 per cent of the State total). Grapevines occupied 10,354 hectares (42 per cent of the State total). In the year ended 31 March 1990 the region produced 174,301 tonnes of oranges, 13,710 tonnes of lemons and limes, 10,498 tonnes of grapefruit and 7,111 tonnes of mandarins.

In the year ended 31 March 1990, the region had 29 per cent of the total area in the State used for vegetable production. The main vegetables grown are onions (27,922 tonnes or 57 per cent of the total State's production), potatoes (24,548 tonnes), carrots (3,468 tonnes) and tomatoes (3,690 tonnes).

South of the Riverland, horticultural activity is confined mainly to the reclaimed areas of the Murray, with the Mypolonga Irrigation Area being the leading locality. The area around Murray Bridge is becoming increasingly important in the production of glasshouse tomatoes and cucumbers, most of which are shipped for sale on the Melbourne market.

Area of Selected Crops, Murray Lands  
(Hectares)

<i>Crops</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Orchards .....	11,553	12,045	12,464
Vineyards .....	10,287	10,119	10,354
Vegetables .....	2,211	2,386	2,889

**Cereals**

Wheat is the principal cereal crop in the Murray Lands, and is mainly grown south of the River Murray. Farming patterns in this area are conditioned by soil moisture, which reflects low and unreliable rainfall, high evaporation and widespread sandy soil. The yields of cereal crops vary widely depending upon the adequacy of seasonal rainfall.

Barley is generally sown on the light mallee sands in the southern part of the region where the rainfall is higher and more reliable.

Oats are grown to a much lesser extent and are used as a source of fodder either as grain or hay.

Cereal rye has been widely sown to stabilise soil in the steep sandy ridges.

Cereals for Grain, Murray Lands, 1989-90

<i>Crop</i>	<i>Area sown</i>	<i>Production</i>	<i>Average yield</i>	<i>Proportion of</i>
	<i>hectares</i>	<i>tonnes</i>	<i>per hectare</i>	<i>South Australian</i>
			<i>tonnes</i>	<i>production</i>
				<i>per cent</i>
Barley .....	222,343	287,812	1.29	16.7
Oats .....	20,905	25,031	1.20	10.0
Rye .....	20,115	6,529	0.32	79.4
Triticale .....	4,937	4,012	0.81	31.0
Wheat .....	217,393	243,644	1.12	9.3

**Sheep**

With the development of new and improved pastures, the number of sheep in the region has increased progressively, subject to seasonal and market fluctuations. At 31 March 1990 the region contained 2,506,003 sheep, a slight increase over the previous year.

Sheep: Numbers by Age and Sex, Murray Lands

<i>At 31 March</i>	<i>Ewes</i>					<i>Total</i>
	<i>Rams</i>	<i>Breeding</i>	<i>Other</i>	<i>Wethers</i>	<i>Lambs</i>	
1988 .....	34,994	1,445,299	44,772	365,915	593,327	2,484,307
1989 .....	35,039	1,455,104	48,053	369,267	580,541	2,488,004
1990 .....	33,933	1,401,457	53,688	427,051	589,874	2,506,003

The wool clip for the year ended 31 March 1990 was 15,418,263 kg which represented 14.3 per cent of the State's total wool clip.

Sheep and Lambs Shorn: Wool Clip and Average Weight per Fleece  
Murray Lands

<i>Particulars</i>	<i>Unit</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
Sheep and lambs shorn .....	number	3,024,396	3,009,325	3,003,565
Wool clip .....	kg	15,611,860	15,348,526	15,418,263
Average per fleece .....	kg	5.16	5.10	5.13

*Cattle for meat production*

The number of beef cattle in the region at 31 March 1990 was 75,123, representing approximately 9 per cent of the State's total. The majority of these were to be found south of the River Murray with the largest concentrations occurring in the local government areas of Coonalpyn Downs and Meningie. In the Riverland, beef cattle are carried mainly in the Loxton and Paringa districts where they are fattened on irrigated pastures and stands of dry-land lucerne.

Cattle for Meat Production, Murray Lands

<i>At 31 March</i>	<i>Bulls</i>	<i>Cows and heifers</i>	<i>Calves</i>	<i>Other cattle</i>	<i>Total</i>
1988 .....	1,549	38,911	27,299	11,552	79,311
1989 .....	1,613	39,825	26,798	8,623	76,859
1990 .....	1,572	39,565	25,177	8,809	75,123

*Cattle for milk production*

Swamps along the River Murray flood plain and land adjacent to Lakes Albert and Alexandrina have been reclaimed for dairy farming. The number of dairy cattle in the region has declined slightly in recent years.

Cattle for Milk Production, Murray Lands

<i>At 31 March</i>	<i>Bulls</i>	<i>Cows</i>	<i>Heifers (one year and over)</i>	<i>Calves</i>	<i>Total</i>
1988 .....	230	26,529	8,133	6,452	41,344
1989 .....	224	25,426	8,023	6,334	40,007
1990 .....	199	25,414	7,804	6,165	39,582

*Pigs*

There has been a steady increase in the number of pigs in the region. Their popularity as a sideline has been largely influenced by a favourable market and their ability to fatten on dry feed produced on the farms. At 31 March 1990 there were 116,602 pigs in the region representing 26.7 per cent of the State's total.

*Value of agricultural production*

The gross value of agricultural commodities in the Murray Lands Statistical Division represented \$526.1 million or 20.5 per cent of the State's value of agricultural production in the year ended 30 June 1990.



Gross Value of Selected Agricultural Commodities  
Murray Lands Statistical Division  
(\$'000)

<i>Particulars</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>
<b>Crops:</b>			
Barley for grain .....	22,334	37,695	47,024
Wheat for grain .....	42,578	53,952	48,239
Citrus .....	52,535	62,394	64,456
Apricots .....	19,369	19,189	19,695
Other fruits (excluding grapes) .....	11,042	11,424	13,392
Grapes .....	66,028	99,432	85,641
Onions .....	8,299	22,218	16,586
Potatoes .....	3,728	6,269	9,219
Other vegetables .....	14,237	15,964	19,123
Other crops .....	18,353	22,125	23,191
<i>Total</i> .....	<i>258,503</i>	<i>350,662</i>	<i>346,566</i>
<b>Livestock slaughtering and other disposals:</b>			
Cattle and calves .....	13,351	13,252	16,040
Sheep and lambs .....	19,880	22,152	13,276
Pigs .....	14,733	20,808	19,499
Poultry .....	11,703	10,327	10,245
<i>Total</i> .....	<i>59,667</i>	<i>66,539</i>	<i>59,060</i>
<b>Livestock products:</b>			
Wool .....	89,062	93,027	85,630
Milk .....	23,809	25,988	28,169
<i>Total</i> .....	<i>121,295</i>	<i>127,059</i>	<i>120,482</i>
<b>Total agriculture</b> .....	<b>439,465</b>	<b>544,259</b>	<b>526,109</b>

### Fisheries

The commercial fishery is concentrated on the River Murray system. Operators are licensed to fish either on a particular reach or the lakes and the Coorong. Approximately 200 persons are employed either full-time or part-time in the fishery.

The major species taken on the reaches are golden perch and Murray cod while flounder, mullet and yellow-eye mullet are taken in the Coorong. Significant numbers of European carp are taken from the river for rock lobster bait. The bulk of the catch is sold on the Adelaide and Melbourne markets.

### Manufacturing

Manufacturing Establishments: Summary of Operations  
Murray Lands and South Australia, 1988-89

<i>Particulars</i>	<i>Unit</i>	<i>Murray Lands</i>	<i>South Australia</i>
Number of establishments .....	Number	102	2,542
<b>Employment (b):</b>			
Males .....	Number	2,126	77,289
Females .....	Number	856	25,666
Persons .....	Number	2,482	102,955
Wages and salaries (c) .....	\$'000	61,189	2,312,392
Turnover .....	\$'000	515,769	13,066,741

(a) Excludes single establishment enterprises employing fewer than four persons.

(b) Includes working proprietors.

(c) Excludes drawings of working proprietors.

The main industrial activities are canning, bottling and preserving fruit and fruit products, milling, manufacturing of wine and brandy, container products, agricultural machinery, dairy products and electrical products. There is also an abattoir.

Manufacturing Establishments: Number of Establishments and Employment  
Selected Statistical Local Areas, Murray Lands, 1988-89<sup>(a)</sup>

Statistical Local Area	Establishments at end of year	Employment at 30 June (b)
	number	persons
Murray Bridge (DC) .....	30	1,311
Berri (DC) .....	18	884
Loxton (DC) .....	15	235
Renmark (M) .....	11	252
<i>Total</i> .....	74	2,682

(a) Excludes single establishment enterprises employing fewer than four persons.

(b) Includes working proprietors.

A major manufacturing activity carried out in the Murray Lands is the production of wine and brandy. In the 1989-90 financial year these wineries produced over 5.81 million litres of fortified wine (33 per cent of South Australian production and 18 per cent of Australian production) and over 40 million litres of unfortified wine (21 per cent of South Australian production and 12 per cent of Australian production).

The following table shows the importance of the wine industry in the Murray Lands.

Wine and Brandy Production: Summary of Operations, Murray Lands and  
South Australia, 1988-89<sup>(a)</sup>

Particulars	Unit	Murray Lands	South Australia
Number of establishments .....	Number	11	83
Employment (b):			
Males .....	Number	314	1,771
Females .....	Number	111	925
Persons .....	Number	425	2,696
Wages and salaries (c) .....	\$'000	8,620	60,663
Turnover .....	\$'000	74,283	508,628

(a) Excludes single establishment enterprises employing fewer than four persons. (b) Includes working proprietors. (c) Excludes drawings of working proprietors.

### Retail trade

At 30 June 1986 there were 777 retail establishments operating in the Murray Lands Statistical Division which employed 3,438 persons. In 1985-86, they paid \$24,739,000 in wages and salaries and had a turnover of \$282,800,000. The number of retail establishments represented 5.4 per cent of the State total and 3.9 per cent of total retail turnover.

**Retail Establishments: Summary of Operations by Industry Group  
Murray Lands, 1985-86**

<i>Industry group</i>	<i>Number of establishments at 30 June 1986</i>	<i>Persons employed at 30 June 1986 (a)</i>	<i>Turnover (b)</i>
	<i>number</i>	<i>number</i>	<i>\$'000</i>
Department and general stores . . . . .	1	n.p.	n.p.
Clothing, fabrics and furniture stores . .	99	307	20,052
Household appliance and hardware stores . . . . .	65	n.p.	n.p.
Motor vehicle dealers, petrol and tyre retailers . . . . .	253	1,217	116,470
Food stores . . . . .	247	1,339	105,700
Other retailers . . . . .	112	339	16,602
<i>Total retail industry . . . . .</i>	<i>777</i>	<i>3,438</i>	<i>282,800</i>

(a) Includes working proprietors.

(b) Turnover sales of goods (retail and wholesale) and all other operating revenue from outside the enterprise.

## Tourism

Attractions in the region include the River Murray, the Coorong, tours of the region's wineries, fruit and juice canneries and historical buildings at Morgan and Loxton. River cruises of various duration commence from Goolwa and Murray Bridge. An estimated 66 per cent of visitors to the region are drawn from the Adelaide metropolitan area, with an estimated 8 per cent of visitors coming from Victoria.

Caravan and camping parks provide a substantial component of visitor accommodation available in the region. Hotel and motel accommodation is available at the main towns and houseboats are available for hire. Bed and Breakfast and Host Farm accommodation is available. Many holiday homes and shacks have been erected along the river. There are excellent boating facilities.

There are pronounced seasonal peaks in visitor activity in the region during the Christmas-New Year and school holiday periods.

At 31 March 1991 in the Murray Lands there were 12 licensed hotels with facilities and 24 motels providing accommodation for visitors with a total of 835 rooms. There were also 27 short-term caravan parks providing 420 on-site vans and cabins and 2,673 other powered and unpowered sites.

## Transport

### Roads

The Murray Lands has an extensive system of roads based on four major highways through the area. The Princes Highway services Meningie and the southern area. The Dukes Highway in conjunction with the Ouyen Highway services the south-eastern section of the area and the Sturt Highway the northern area. The length of roads in the Murray Lands at 30 June 1991 was 14,214 kilometres of which 3,014 kilometres were sealed.

The River Murray traverses the area and presents a barrier to road transport. The Highways Department operates fifteen punts at thirteen locations along the River Murray to facilitate vehicle crossings. Five road bridges have been constructed and these, together with the punts, provide crossing points.

### Motor bus services

Several privately owned bus services operate under licence from the State Transport Authority. Daily services are operated between Adelaide and most major towns in the area with local feeder services to the remaining towns.

**Railways**

The towns of Cambrai, Waikerie, Loxton, Barmera, Peebinga and Pinnaroo are the termini of branch lines which form a railway network throughout the Murray Lands. This network connects with the Adelaide to Melbourne line. A daily goods service operates on the network but there is no passenger service. Grain is the major commodity transported on the system.

The railway line crosses the River Murray *via* bridges located at Murray Bridge and Paringa.

**Air transport**

The Murray Lands has three licensed aerodromes located at Loxton, Waikerie and Renmark. Renmark is connected to Adelaide by an airline service on five days a week.

**Media**

There are several newspapers printed in the region. *The Murray Valley Standard* and the *Bridge Mercury* are printed at Murray Bridge and generally circulate among the river towns. *The Border Times* is printed at Pinnaroo and circulates in the north-east of the region. *The Murray Pioneer* is printed at Renmark, *The Loxton News* at Loxton and *The River News* at Waikerie.

Of the two commercial radio stations in the region, 5MU broadcasts from Murray Bridge and 5RM from Berri. The national radio station 5MV is located at Renmark. National regional television station ABRS-3 and the commercial television station RTS-5A are located at Loxton.

**Recreation and sport**

Many recreational activities such as pleasure boating, canoeing, water-skiing and fishing are pursued on the River Murray, Lakes Alexandrina and Albert, and the Coorong.

The relatively inaccessible and undisturbed shores of the Younghusband Peninsula and the bushland of the Murray Mallee conservation parks attract people interested in nature study, photography and bushwalking.

Relatively flat terrain and the usually fine, clear weather make the region suitable for gliding and there are several gliding clubs in the region with Waikerie being one of the foremost gliding centres in Australia. The World Gliding Championship was held at Waikerie in 1974.

Many sporting facilities are available in the towns with football, cricket, tennis, bowls and basketball being the most popular. There is a good quality turf race course at Murray Bridge and for golf enthusiasts there are 18-hole golf courses at Murray Bridge, Renmark, Berri, Barmera, Waikerie, Lameroo, Pinnaroo and Loxton.

Yachting regattas and State championship heats for some yacht classes are sailed on Lake Bonney.

**Parks and reserves**

In common with other areas of the State, the extensive clearing of native vegetation for farming and pastoral activities and the introduction of foreign predators such as the fox and feral cat depleted the number of native wildlife species in many localities within the region.

Establishment of parks and reserves is seen as an important factor in survival of native wildlife and vegetation. This has ensured that in the Murray Lands many of the native animals *e.g.* western grey kangaroo, emu, common wombat, echidna, red-necked wallaby and hairy-nosed wombat are still quite abundant.

The region supports numerous species of birdlife including some rare species such as the striated grass wren and mallee whip-bird. The uncleared areas of mallee scrubland provide an important habitat for the mallee fowl.

There are two national parks, one recreation reserve, five game reserves and thirty-seven conservation parks in the region. These range in size from Ngarkat Conservation Park (consisting of Ngarkat, Scorpion Springs, Mount Rescue and Mount Shaugh Conservation Park – total area 270,153 hectares) extending from Tintinara to the South Australian/Victorian border, Billiatt Conservation Park (59,148 hectares) east of Karoonda to Rilli Island Conservation Park (4 hectares) and Kapunda Island Conservation Park (1 hectare) both near Loxton.

Most of the Coorong National Park (46,745 hectares) lies in the region. The Coorong is a breeding ground for rare coastal birdlife and a drought refuge for many species of water birds including waterfowl such as grey teal, chestnut teal, mountain duck and black swan. Five species of cormorants that occur in South Australia are found within the Coorong and some breed there. The Coorong is also a major breeding ground for the Australian pelican. Thousands of pelicans gather on some islands of the Coorong during the breeding season. To protect the breeding grounds, entry to these islands is restricted.

The shores of the Coorong, Lakes Alexandrina and Albert are important refuges for Cape Barren geese and many species of waterfowl.

To provide better protection to sand dunes and vegetation the Coorong National Park includes waters of the Coorong and the adjoining mainland.

A section in the middle of the Coorong National Park is designated the Coorong Game Reserve. Other game reserves are Mud Islands Game Reserve in Lake Alexandrina, Moorook Game Reserve near Barmera, Poocher Swamp Game Reserve near Bordertown and Loch Luna Game Reserve near Barmera.

Part of the Danggalli Conservation Park lies in the north-east of the region, on the border with New South Wales.

## **Appendix**

# **STATISTICAL SUMMARY**

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In the next twenty-one 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. 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 150 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 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:

- n.a. not collected
- n.y.a. not yet available
- p preliminary figure or series subject to revision
- .. not applicable
- nil or less than half the final digit shown
- break in continuity of figures

POPULATION AND DEMOGRAPHY<sup>(a)</sup>

Year	Population estimate at 31 December			Annual population growth			
	Males	Females	Persons	Recorded natural increase (b)	Rate of natural increase (c)	Total increase	Rate of population growth per cent
1836	309	237	546			546	
1841	8,755	6,730	15,485			855	5.84
1846	14,711	11,182	25,893	577	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
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
1961	494,600	484,800	979,400	14,584	15.03	22,400	2.68
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	602,000	606,700	1,208,700	..	..	..	..
1972	608,800	613,400	1,222,100	12,020	9.89	13,400	1.10
1973	615,700	619,900	1,235,600	10,474	8.53	13,400	1.09
1974	627,700	632,000	1,259,800	9,906	7.97	(f)24,200	1.95
1975	633,200	637,500	1,270,700	9,958	7.87	10,900	0.86
1976	637,800	642,300	1,280,200	8,902	6.98	9,500	0.75
1977	643,200	649,100	1,292,300	9,406	7.31	12,100	0.94
1978	645,400	653,200	1,298,600	8,781	6.78	6,300	0.49
1979	648,200	656,400	1,304,600	8,753	6.73	6,000	0.46
1980	651,000	661,100	1,312,600	8,861	6.77	8,000	0.61
1981	657,000	668,200	1,325,200	9,550	7.24	12,600	0.96
1982	663,600	674,100	1,337,800	8,751	6.57	12,600	0.95
1983	671,700	681,500	1,353,200	9,961	7.40	15,400	1.15
1984	678,000	687,400	1,365,300	9,952	7.32	12,100	0.89
1985	684,400	692,400	1,376,800	9,295	6.78	11,500	0.84
1986	690,600	697,500	1,388,200	9,413	6.81	11,400	0.83
1987	697,100	704,200	1,401,400	8,704	6.24	13,200	0.95
1988	704,900	711,700	1,416,600	8,466	6.01	15,200	1.08
1989	712,800	719,000	1,431,800	8,285	5.82	15,200	1.07
1990 p	721,400	726,500	1,447,900	8,965	6.23	16,100	1.12

(a) Figures before January 1962 exclude full-blood Aborigines. Figures from 1971 are compiled on the basis of estimated resident population. (b) Births and deaths of full-blood Aborigines, where identified in registration, have been excluded from natural increase figures before 1 January 1962. (c) Excess of births over deaths per 1,000 of mean population. From 1971 mean estimated resident population. (d) Includes Northern Territory before 1901. (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. (f) Effect of Cyclone Tracy.

## BIRTHS AND SOCIAL

Year	Live births			Adoptions (b)	Marriages		Divorces (c)	
	Number	Rate (a)	Ex-nuptial (%)	Number	Total	Rate (a)	Total	Rate (a)
1846	937	36.2			220	8.5		
1851	2,759	41.5			189	2.8		
1856	4,488	41.6		57	1,171	10.9		
1861	5,551	43.3		49	1,158	9.0		
1866	6,782	41.1		43	1,299	7.9		
1871	7,082	38.0		67	1,250	6.7		
1876	8,224	37.8		93	1,852	8.5		
1881	10,708	38.1	2.3	84	2,308	8.2		
1886	11,177	36.3	2.4	82	1,976	6.4	10	0.0
1891	10,737	33.4	2.9	63	2,315	7.2	5	0.0
1896	10,012	28.4	3.5	76	2,183	6.2	6	0.0
1901	9,079	25.4	4.0	67	2,304	6.5	6	0.0
1906	8,921	24.6	4.0	85	2,679	7.4	3	0.0
1911	11,057	28.9	4.2	60	4,036	9.8	20	0.0
1916	11,857	26.9	3.8	104	3,602	8.2	14	0.0
1921	11,974	24.1	3.1	111	4,383	8.8	88	0.2
1926	11,483	20.7	3.1	216	4,503	8.1	71	0.1
1931	9,079	15.8	3.3	241	3,069	5.3	138	0.2
1936	8,911	15.2	3.1	297	5,182	8.8	213	0.4
1941	10,965	18.2	2.8	319	6,855	11.4	273	0.5
1946	15,813	24.9	3.2	371	6,700	10.6	654	1.0
1951	17,463	23.8	2.9	399	6,646	9.1	637	0.9
1956	18,964	22.4	3.4	402	6,277	7.4	567	0.7
1957	19,536	22.4	3.3	470	6,581	7.5	529	0.6
1958	20,047	22.4	3.7	472	6,505	7.3	483	0.5
1959	20,372	22.1	3.7	575	6,614	7.2	503	0.5
1960	20,966	22.2	4.0	571	6,607	7.0	610	0.6
1961	22,399	23.1	4.6	594	6,804	7.0	718	0.7
1962	21,361	21.7	4.8	591	7,021	7.1	685	0.7
1963	21,367	21.2	5.0	644	7,302	7.2	765	0.8
1964	20,866	20.2	5.9	619	7,765	7.5	887	0.9
1965	20,891	19.6	6.3	717	8,680	8.2	852	0.8
1966(d)	20,362	18.6	6.8	783	9,051	8.3	1,069	1.0
1967	20,386	18.4	6.7	839	9,434	8.5	929	0.8
1968	21,207	18.9	7.4	780	9,652	8.6	915	0.8
1969	21,977	19.3	6.9	797	10,599	9.3	963	0.8
1970	22,617	19.5	7.6	834	10,864	9.4	939	0.8
1971	22,996	19.4	7.8	879	10,833	9.2	1,264	1.1
1972	21,844	18.2	8.3	776	10,829	9.1	1,235	1.0
1973	20,407	16.8	8.8	649	10,806	9.0	1,582	1.3
1974	20,181	16.3	9.3	558	10,769	8.8	1,561	1.3
1975	19,986	16.0	9.7	551	9,843	8.0	1,812	1.4
1976	18,947	14.9	9.4	549	10,902	8.6	(f)6,142	4.8
1977	19,260	15.0	9.8	658	10,126	7.9	4,419	3.4
1978	18,558	14.3	11.0	506	9,800	7.6	3,805	2.9
1979	18,478	14.2	11.4	415	9,778	7.6	3,794	2.9
1980	18,499	14.1	12.5	475	10,064	7.8	4,203	3.2
1981	19,351	14.7	13.0	505	10,252	7.8	4,132	3.1
1982	19,294	14.5	13.1	396	10,935	8.2	4,526	3.4
1983	(e)19,830	14.8	14.3	424	10,550	7.9	4,431	3.3
1984	20,052	14.8	14.5	438	10,643	7.9	4,114	3.0
1985	19,790	14.5	14.6	222	10,148	7.4	4,216	3.1
1986	19,741	14.4	17.5	347	9,878	7.2	3,776	2.8
1987	19,235	13.8	17.8	346	9,695	7.0	4,050	2.9
1988	19,155	13.6	18.8	244	10,128	7.2	4,031	2.9
1989	19,610	13.8	21.1	229	9,776	6.9	3,740	2.6
1990	n.y.a.	n.y.a.	n.y.a.	n.y.a.	9,609	6.7	4,066	2.8

(a) Rate per 1,000 of mean population. From 1976 mean resident population. (b) Year ended 30 June. (c) Dissolutions made absolute. (d) Vital events of full-blood Aborigines, where identified in registrations, were excluded before 1966. (e) From 1983 State of usual residence not State of registration. (f) The *Family Law Act 1975* (Cwlth) came into operation throughout Australia in 1976.



## DEATHS

Year	Number	Rate (a)	Rates from principal causes (a)		Infant (b)	
			Diseases of the heart	Cancer	Number	Rate (c)
1841						
1846	360	14.0				
1851	973	14.6			539	195.4
1856	1,147	10.6		0.1	610	135.9
1861	1,962	15.3		0.1	1,064	191.7
1866	2,753	16.7		0.2	1,385	204.2
1871	2,378	12.7		0.2	851	120.2
1876	3,550	16.3		0.4	1,228	149.3
1881	4,012	14.3		0.3	1,364	127.4
1886	4,234	13.8		0.3	1,409	126.1
1891	4,211	13.1		0.5	976	90.8
1896	4,038	11.5		0.5	1,015	101.0
1901	3,974	11.1		0.6	909	100.1
1906	3,872	10.7		0.8	675	75.7
1911	4,038	9.8	1.0	0.7	670	60.6
1916	5,077	11.5	1.3	0.8	868	73.2
1921	4,982	10.0	1.1	0.9	784	65.5
1926	4,877	8.8	1.0	1.0	509	44.3
1931	4,888	8.5	1.4	1.2	330	36.4
1936	5,464	9.3	1.9	1.3	277	31.1
1941	6,288	10.5	2.6	1.3	356	32.5
1946	6,461	10.2	3.0	1.3	428	27.1
1951	7,184	9.8	3.2	1.2	428	24.5
1956	7,593	9.0	3.2	1.2	377	19.9
1957	7,576	8.7	2.9	1.3	403	20.6
1958	7,743	8.6	2.9	1.3	449	22.4
1959	7,943	8.6	2.9	1.2	422	20.7
1960	7,804	8.3	3.1	1.2	397	18.9
1961	7,815	8.1	2.9	1.3	448	20.0
1962	8,232	8.4	3.1	1.4	409	19.2
1963	8,201	8.1	3.0	1.3	399	18.7
1964	8,906	8.6	3.2	1.3	397	19.0
1965	8,788	8.3	3.1	1.3	385	18.4
1966(d)	9,345	8.5	3.2	1.3	364	17.9
1967	9,071	8.2	3.1	1.4	346	17.0
1968	9,916	8.8	3.3	1.4	345	16.3
1969	9,337	8.2	3.0	1.5	347	15.8
1970	10,138	8.8	3.2	1.4	367	16.2
1971	9,686	8.2	2.9	1.4	366	15.9
1972	9,764	8.1	2.9	1.5	367	16.8
1973	9,835	8.1	3.0	1.5	276	13.5
1974	10,236	8.3	3.0	1.5	312	15.5
1975	9,947	7.9	2.9	1.5	222	11.1
1976	9,999	7.8	2.9	1.5	276	14.6
1977	9,784	7.6	2.8	1.5	221	11.5
1978	9,763	7.5	2.8	1.5	227	12.2
1979	9,661	7.4	2.8	1.5	166	9.0
1980	9,580	7.3	2.6	1.6	187	10.1
1981	9,706	7.4	2.6	1.7	157	8.1
1982	10,457	7.9	2.8	1.7	221	11.5
1983(e)	9,869	7.3	2.6	1.7	183	9.2
1984	10,099	7.4	2.6	1.8	152	7.6
1985	10,496	7.7	2.7	1.8	188	9.5
1986	10,328	7.5	2.7	1.8	146	7.4
1987	10,531	7.6	2.7	1.8	165	8.6
1988	10,690	7.6	2.7	1.9	152	7.9
1989	11,348	8.0	2.7	1.9	146	7.4

(a) Rate per 1,000 of mean population. From 1976 mean resident population. (b) Under one year of age from 1871, previously under two years of age. (c) Rate per 1,000 live births registered. (d) Vital events of full-blood Aborigines, where identified in registrations, were excluded before 1966. (e) From 1983 State of usual residence not State of registration.

EDUCATION

Year	Primary and secondary								
	Government schools (a)			Non-government schools			Tertiary students		
	No.	Students		No.	Students		Universities (b)	Colleges of Advanced Education	Technical and Further Education
		Primary	Secondary		Primary	Secondary			
1851	115	3,031							
1856	147	6,516							
1861	219	10,711							
1866	292	14,690							
1871	307	15,791							
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	179	(c)11,121		641		
1916	857	63,935	3,047	(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		
1951	728	81,642	14,106	146	20,677		3,720		
1956	699	118,365	22,134	163	29,050		3,828		
1961	688	135,274	41,889	165	35,652		6,250		
1966	700	154,253	60,834	172	(e)24,188	(e)12,999	9,364		
1967	674	157,424	65,630	173	23,533	13,469	9,658		
1968	683	157,997	58,814	171	22,814	13,599	9,803		
1969	676	159,682	71,599	171	22,257	14,203	10,128	3,420	
1970	681	156,922	71,866	170	22,464	14,642	10,176	3,443	
1971	662	156,458	74,982	169	22,669	15,018	10,682	4,242	
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	6,662 78,214	
1974	613	152,901	79,578	157	22,399	16,494	12,264	12,163 88,154	
1975	619	151,975	82,737	151	22,479	16,818	12,876	13,773 91,421	
1976	625	151,499	82,115	147	22,177	17,122	13,493	14,560 124,305	
1977	626	152,079	81,131	145	22,361	17,085	13,390	15,168 139,651	
1978	628	149,964	80,491	151	22,353	17,088	12,904	15,996 137,837	
1979	632	146,793	77,732	155	22,591	17,381	12,840	16,042 147,329	
1980	638	142,290	76,392	159	23,347	17,769	12,677	16,976 149,437	
1981	638	137,860	75,173	163	24,729	18,583	12,811	17,558 163,440	
1982	(h)716	131,250	75,266	169	25,805	19,952	12,892	17,031 168,007	
1983	714	127,334	78,183	173	27,183	21,087	13,242	17,158 177,913	
1984	708	121,615	79,605	174	(i)27,427	21,957	13,584	18,277 169,430	
1985	708	117,588	78,648	175	28,133	23,113	13,833	18,434 139,129	
1986	711	115,388	75,686	178	28,729	24,059	13,971	19,742 140,892	
1987	717	112,311	73,670	177	29,125	24,834	14,407	18,903 140,500	
1988	715	112,349	71,108	178	29,912	25,333	15,142	20,178 (j)101,246	
1989	708	117,266	67,259	183	31,127	25,236	16,069	21,836 102,526	
1990	706	119,490	65,378	185	32,179	25,688	18,274	n.a. 101,016	
1991	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	(k)47,164	n.a. n.y.a.	

(a) Net enrolment to 1969, thereafter at census date (at or about 1 August, or 1 July). 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. 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. (h) Government junior primary schools counted separate from 1982. (i) From 1984 includes a small number of special students. (j) Data are not comparable to previous years because of reduction of double counting of individuals. (k) Increased numbers due to the merging of all campuses of the former SACAE with the University of Adelaide, Flinders University and the recently formed University of South Australia.

## HEALTH

Year	Recognised hospitals		Mental hospitals admissions during year (a)	Medical practitioners registered
	Number of hospitals	Admissions		
1846	1		10	22
1851	1	413	9	68
1856	1	559	69	101
1861	1	795	68	111
1866	1	1,257	88	85
1871	1	1,433	111	77
1876	1	2,282	149	94
1881	1	2,258	199	113
1886	1	2,022	207	152
1891	1	2,301	224	177
1896	1	2,633	195	279
1901	1	3,554	214	341
1906	9	4,476	231	242
1911	21	8,547	273	299
1916	27	12,453	302	326
1921	31	15,642	272	360
1926	45	22,438	249	445
1931	51	26,505	250	457
1936	52	34,014	272	477
1941	55	40,593	247	814
1946	(b)58	(b)46,696	(b)302	947
1951	60	57,401	452	1,172
1956	65	69,295	553	1,395
1957	65	73,249	543	1,469
1958	64	75,282	659	1,507
1959	65	79,426	712	1,601
1960	65	82,948	1,637	1,681
1961	66	87,386	1,846	1,739
1962	65	89,409	1,925	1,821
1963	65	94,144	2,604	1,883
1964	65	99,491	3,132	2,002
1965	65	105,098	3,061	2,080
1966	67	111,313	2,810	2,175
1967	65	117,693	2,866	2,282
1968	65	122,835	2,733	2,372
1969	65	132,864	2,964	2,474
1970	66	135,433	3,378	2,568
1971	67	135,927	3,527	2,707
1972	68	147,058	3,602	3,054
1973	69	158,261	3,225	3,154
1974	70	164,797	3,309	3,348
1975	71	168,832	3,410	3,767
1976	73	179,733	3,665	4,531
1977	81	190,806	3,489	4,574
1978	81	202,802	3,648	4,783
1979	81	216,315	3,971	4,800
1980	81	220,138	4,470	5,100
1981	81	228,593	6,279	5,500
1982	81	222,319	6,790	4,778
1983	81	237,625	5,867	4,991
1984	81	249,572	6,084	5,200
1985	81	241,123	7,026	5,247
1986	81	242,709	7,700	5,271
1987	81	246,004	6,210	5,318
1988	81	251,148	5,456	5,331
1989	81	n.y.a.	4,274	n.y.a.

(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.

## LAW AND ORDER : SOCIAL WELFARE

Year	Courts				Pensioners (d)	
	Matters proven (a)		Police personnel	Bank-ruptcies	Age and invalid	Disability and service
	Higher courts (b)	Lower courts (c)				
1841	37			36		
1846	40			16		
1851	103		127	106		
1856	85	2,919	174	88		
1861	62	3,025	151	115		
1866	107	4,341	208	252		
1871	91	4,864	187	247		
1876	129	7,905	257	200		
1881	213	13,231	371	696		
1886	121	6,808	401	535		
1891	85	6,918	388	142		
1896	110	5,149	347	240		
1901	98	4,968	359	165		
1906	92	5,249	373	172		
1911	74	7,303	423	190		
1916	52	7,145	541	324	10,993	794
1921	97	8,968	566	155	12,320	14,663
1926	174	21,417	633	439	14,098	16,144
1931	274	14,760	763	996	20,602	16,653
1936	171	14,920	701	551	26,134	15,997
1941	177	21,990	707	284	29,642	15,424
1946	231	(e)20,585	(e)830	23	29,512	30,687
1951	307	28,675	913	53	36,582	51,589
1956	362	28,221	1,018	150	47,754	66,535
1961	606	52,155	1,376	561	60,483	72,695
1966	738	71,694	1,595	648	67,999	68,439
1967	707	87,110	1,660	660	70,521	66,624
1968	692	105,027	1,777	759	74,016	65,078
1969	712	105,966	1,845	659	76,616	62,986
1970	694	114,499	1,881	611	85,076	61,928
1971	(f)931	110,543	1,971	(g)626	88,936	60,406
1972	964	123,063	2,063	643	92,771	58,682
1973	982	(h)94,068	2,167	554	104,350	59,707
1974	906	93,037	2,264	373	116,117	59,522
1975	989	104,402	2,461	437	123,627	(i)59,130
1976	1,080	95,758	2,548	351	130,229	59,536
1977	1,075	105,224	2,718	456	136,473	60,492
1978	1,258	105,413	2,879	673	141,941	61,642
1979	1,281	88,404	3,093	847	146,860	62,505
1980	n.a.	n.a.	(j)3,423	1,016	159,599	65,109
1981	n.a.	n.a.	3,427	1,012	153,210	67,696
1982	1,321	(k)15,384	3,400	860	155,924	69,924
1983	1,935	(l)31,102	3,357	962	160,694	73,812
1984	2,213	32,526	3,361	817	(m)171,418	76,686
1985	2,923	29,455	3,373	706	172,064	77,967
1986	2,549	31,918	3,492	922	174,057	78,401
1987	3,096	30,235	3,661	1,353	175,795	74,944
1988	n.y.a.	n.y.a.	3,573	1,414	180,973	74,342
1989	n.y.a.	n.y.a.	3,565	1,326	183,330	72,393

(a) Each type of offence counted separately when there are multiple charges against an individual. (b) Distinct persons only. From 1982 includes corporate bodies. (c) Year ended 30 June from 1943 to 1983. (d) Year ended 30 June. (e) Year ended 30 June from 1943. (f) Year ended 30 June from 1971 to 1979. (g) Year ended 30 June from 1971. (h) Excludes juvenile offenders from 1973. (i) From 1974-75, war pensions known as disability pensions. (j) From 1980 includes trainees, cadets and probationary constables. (k) Excludes offences relating to the Road Traffic Act. (l) From 1983 excludes minor traffic offences. (m) Includes carer pensions from 1984.

## EMPLOYMENT AND UNEMPLOYMENT

Year	Civilian labour force (a)		Civilian employment (a)		Factory employment (b)		Unemployed (a)		
	Males	Females	Males	Females	Males	Females	Number		Rate (c)
							Males	Females	Persons
'000	'000	'000	'000	'000	'000	'000	'000	'000	per cent
1911 .....					22.6	5.3			
1916-17 .....					20.8	5.2			
1920-21 .....					24.5	5.9			
1925-26 .....					33.1	6.9			
1930-31 .....					19.3	4.6			
1935-36 .....					31.4	7.1			
1940-41 .....					40.1	10.8			
1945-46 .....					49.5	13.7			
1950-51 .....					66.8	16.2			
1951-52 .....					68.0	15.9			
1952-53 .....					67.1	13.4			
1953-54 .....					70.7	14.8			
1954-55 .....					73.7	15.9			
1955-56 .....					76.1	16.4			
1956-57 .....					75.5	16.4			
1957-58 .....					75.9	16.6			
1958-59 .....					77.4	16.7			
1959-60 .....					81.3	17.7			
1960-61 .....					81.9	18.1			
1961-62 .....					81.8	17.3			
1962-63 .....					86.7	18.6			
1963-64 .....					90.9	19.9			
1964-65 .....					94.7	21.5			
1965-66 .....					96.2	22.1			
1966-67 .....	321.9	143.5	316.6	136.5	96.1	22.1	5.3	7.0	2.6
1967-68 .....	319.8	144.5	315.0	138.1	98.9	22.5	4.9	6.4	2.4
1968-69 .....	328.7	152.1	323.9	146.0	(d)93.3	(d)23.0	4.9	6.2	2.3
1969-70 .....	332.7	161.2	329.3	155.8	95.4	24.4	3.4	5.4	1.8
1970-71 .....	335.4	168.1	331.4	163.1	n.a.	n.a.	4.0	5.0	1.8
1971-72 .....	343.2	170.1	338.0	162.1	96.3	25.4	5.1	7.9	2.5
1972-73 .....	348.9	182.2	341.5	172.6	97.8	27.7	7.5	9.6	3.2
1973-74 .....	358.3	196.5	352.9	188.0	100.6	30.8	5.3	8.4	2.5
1974-75 .....	364.3	200.9	358.5	190.9	(e)91.8	(e)25.6	5.8	10.0	2.8
1975-76 .....	366.5	211.3	355.0	194.3	91.0	26.1	11.5	17.0	4.9
1976-77 .....	372.0	217.0	361.0	203.2	89.2	24.9	11.0	13.7	4.2
1977-78 .....	(f)380.1	(f)223.0	(f)356.0	(f)206.5	82.9	22.9	(f)24.1	(f)16.5	(f)6.7
1978-79 .....	376.1	224.0	352.2	203.2	82.8	23.7	23.9	20.8	7.4
1979-80 .....	376.2	222.2	349.8	200.4	82.6	23.0	26.4	21.8	8.1
1980-81 .....	375.7	229.7	350.7	210.3	80.9	23.1	25.0	19.5	7.3
1981-82 .....	274.2	229.5	348.7	208.6	81.0	22.6	25.5	20.8	7.7
1982-83 .....	382.1	224.5	338.9	199.7	70.5	19.9	43.1	24.8	11.2
1983-84 .....	(g)384.5	(g)236.7	(g)349.9	(g)214.6	70.9	20.8	(g)34.6	(g)22.0	(g)9.1
1984-85 .....	390.0	248.1	358.0	226.0	71.3	21.2	32.0	22.1	8.5
1985-86 .....	(h)396.5	(h)260.7	(h)365.5	(h)241.2	n.a.	n.a.	(h)31.0	(h)19.5	(h)7.7
1986-87 .....	396.2	269.3	362.9	245.9	67.7	22.5	33.2	23.5	8.5
1987-88 .....	399.0	279.7	364.8	255.8	71.7	23.5	34.2	23.9	8.6
1988-89 .....	410.7	287.1	382.2	266.3	77.3	25.8	28.5	20.8	7.1
1989-90 .....	422.7	290.2	394.3	269.8	n.y.a.	n.y.a.	28.4	20.4	6.8

(a) From the June Labour Force Survey from 1978; August in earlier years. (b) Average employment (including working proprietors), over the year to 1967-68. From 1968-69 employment at 30 June. (c) The unemployment rate is the number unemployed as a proportion of the number in the labour force. (d) Direct comparisons with previous years are not possible because of changes in the scope of the census. (e) From 1974-75 excludes single establishment enterprises employing fewer than four persons. (f) Labour force before 1977-78 are based on 1976 Census benchmarks. From 1977-78 estimates are based on 1981 Census benchmarks. (g) From 1983-84, labour force based on 1986 Census benchmarks. (h) Estimates for periods before April 1986 are based on the old definition of employed persons.

WAGES

31 December	State living wage		Basic and minimum wage rates (a)		Minimum weekly wage rates (b)		Award rates of pay indexes (c)	
	Males	Females	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		
1936	6.60	3.30	6.90		7.95	4.33		
1941	8.70	4.35	8.40		10.58	5.54		
1946	9.85	5.50	10.20		12.41	7.60		
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	20.69	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	(a)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			100.20		132.20	125.62	104.3	104.4
1977			111.80		145.69	139.06	115.1	114.8
1978			119.60		158.53	149.15	124.2	123.1
1979			123.40		167.12	154.58	131.1	128.0
1980			134.40		184.39	172.56	146.2	144.8
1981			144.40		215.25	192.63	167.1	160.5
1982			144.40		(g)229.10	(g)209.52	186.1	181.2
1983			150.60		(h)	(h)	195.8	191.6
1984			156.80				204.8	202.9
1985			168.50				(i)103.8	(i)103.8
1986			172.40				106.3	106.7
1987			182.40				111.5	111.9
1988			188.40				119.1	119.5
1989			204.10				127.3	127.4
1990			(j)				132.7	132.4

(a) Provisions for minimum wages (for adult males only) were inserted in Commonwealth Awards in July 1966 and basic wages were replaced by the total wage concept in July 1967. (b) Adult rates for all industries excluding rural. (c) Base: weighted average minimum award rate, June 1976 = 100.0. Includes wage and salary earners for all industries except rural, permanent defence forces and private households employing staff. (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. (g) At 1 August. (h) Discontinued and replaced by award rates of pay indexes. (i) Base: June 1985 = 100.0. (j) Discontinued. Minimum wage rates are now determined for individual State Awards.

## 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			
							\$	\$	cents
1901	575								
1911	570						12.71	16.53	15.59
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
1936	798	795	839				14.07	9.83	21.89
1941	905	893	988				16.42	21.43	21.76
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			Not calculated	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	111.21	106.11	120.12
1976				180.6	222.1	190.5	104.46	98.14	134.46
1977				(d)65.6	(d)75.6	(d)70.5	90.36	106.52	173.39
1978				73.1	81.9	77.5	102.20	88.37	179.03
1979				80.6	86.0	83.2	127.83	83.95	193.65
1980				90.9	92.1	91.6	153.24	126.84	224.56
1981				100.0	100.0	100.0	154.92	144.99	245.55
1982				108.8	110.1	110.5	159.61	139.47	262.85
1983				118.9	123.4	123.5	177.54	155.35	260.24
1984				127.2	136.2	132.3	164.86	153.95	281.10
1985				134.5	150.5	138.7	173.72	136.06	281.83
1986				145.4	161.7	150.2	170.63	122.58	304.92
1987				157.1	169.4	164.0	149.69	115.85	343.44
1988				165.4	175.1	175.0	169.07	123.36	493.03
1989				179.9	191.6	187.8	215.62	168.65	540.61
1990				188.9	220.4	201.2	199.39	167.63	469.60

(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 average for year ended 30 June in the year stated. (c) Bulk wheat from 1962, previously bagged. (d) Base of each group 1980-81 = 100.0.

## METEOROLOGY, ADELAIDE

Year	Rainfall		Evaporation	Sunshine	Temperature		
	Days of rain	Total	Total	Total	Extreme maximum	Extreme minimum	Mean
	days	mm	mm	hours	°C	°C	°C
1841	93	459					
1846	114	651					
1851	128	786					
1856	118	635					
1861	147	602			42.8	1.7	17.4
1866	121	514			43.1	2.9	17.7
1871	125	592	1,345		44.1	3.0	17.8
1876	104	344	1,548		45.7	0.3	16.9
1881	127	460	1,422		41.0	1.8	16.7
1886	118	368	1,421	2,588	44.7	2.0	17.1
1891	109	353	1,322	2,753	39.3	2.3	16.8
1896	121	385	1,337	2,644	44.0	1.3	17.4
1901	119	459	1,494	2,523	43.3	1.8	17.5
1906	130	674	1,400	2,366	45.1	2.3	17.6
1911	127	408	1,233	2,415	39.3	1.6	17.2
1916	142	715	1,411	2,512	41.9	3.5	16.7
1921	100	575	1,478	2,658	43.1	2.8	18.2
1926	116	429	1,473	2,689	40.1	3.0	17.3
1931	146	567	1,517	2,534	45.9	3.1	16.8
1936	123	493	1,525	2,431	39.8	2.8	17.1
1941	125	575	1,604	2,472	43.3	3.3	16.9
1946	135	575	1,385	2,301	41.3	2.0	16.3
1951	135	648	1,645	2,339	40.5	2.6	16.9
1956	154	692	1,638	2,379	38.3	4.1	16.4
1957	110	426	1,736	2,673	40.9	3.4	16.8
1958	121	447	1,672	2,455	39.0	1.2	16.4
1959	88	289	1,750	2,592	43.3	3.1	17.3
1960	129	588	1,606	2,356	41.8	2.4	16.3
1961	122	380	n.a.	2,586	40.8	2.9	17.8
1962	125	459	n.a.	2,559	42.7	4.2	17.2
1963	118	621	1,620	2,369	39.9	3.3	17.0
1964	135	557	1,507	2,200	40.3	2.3	16.3
1965	111	340	1,648	2,439	38.8	2.6	17.3
1966	123	495	1,612	2,432	40.7	3.3	16.9
1967	89	256	1,939	2,841	39.0	3.9	17.3
1968	141	656	1,870	2,410	43.1	2.2	17.0
1969	112	526	1,783	2,665	41.1	3.9	16.7
1970	149	484	1,886	2,658	40.5	2.9	16.6
1971	147	674	1,813	2,624	39.6	4.2	17.1
1972	106	448	1,947	2,967	39.6	2.3	17.3
1973	129	677	1,740	2,686	40.5	3.7	17.7
1974	136	638	1,561	2,584	36.9	3.6	17.2
1975	142	523	1,635	2,596	41.2	3.8	17.2
1976	110	367	1,636	2,831	40.5	3.3	16.7
1977	117	400	1,665	2,876	40.3	3.6	17.2
1978 (a)	127	588	1,533	2,723	39.3	2.2	16.4
1979	137	660	1,557	2,702	42.0	3.0	17.2
1980	119	527	1,616	2,897	43.3	3.3	17.5
1981	119	671	1,542	2,739	43.4	2.4	17.4
1982	105	357	1,571	2,878	44.2	-0.4	17.4
1983	127	692	1,446	2,745	42.8	0.7	17.0
1984	130	518	1,460	2,802	37.7	1.9	16.7
1985	123	562	1,421	2,716	41.8	1.5	16.9
1986	126	605	1,406	2,705	41.9	1.7	16.5
1987	121	575	1,381	2,780	40.7	1.6	16.8
1988	126	545	1,458	2,777	40.9	3.0	17.8
1989	119	503	1,396	2,650	40.3	1.0	17.2
1990	117	482	1,406	n.a.	42.0	2.0	17.0

(a) Recorded at Bureau of Meteorology, Kent Town from 1978, previously West Terrace, Adelaide.



## RURAL PRODUCTION

## Land Cultivation

Year	Rural establish- ments	Area of rural establish- ments	Area under crop (b)		Area of pastures top- dressed	Area under irrigation
			Fertilised	Total		
	No.	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha
1846-47				14		
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
1946-47	28,040	59,154	1,366	1,572	450	18.7
1951-52	28,698	61,425	1,284	1,496	870	23.6
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.
1977-78	21,909	62,494	2,309	2,565	1,607	n.a.
1978-79	22,022	62,655	2,596	2,827	1,614	78.4
1979-80	23,155	62,786	n.a.	2,772	1,811	n.a.
1980-81	22,249	62,437	n.a.	2,773	1,894	79.5
1981-82	21,402	62,897	2,677	2,865	1,782	n.a.
1982-83	21,172	60,196	n.a.	2,856	1,610	n.a.
1983-84	19,923	62,063	n.a.	3,108	1,631	86.0
1984-85	19,915	62,616	2,633	2,908	1,754	n.a.
1985-86 (c)	14,488	57,854	2,530	3,000	1,551	n.a.
1986-87	15,369	59,471	2,663	3,066	1,522	91.8
1987-88	14,768	59,958	2,699	2,990	1,722	n.a.
1988-89	14,565	58,029	2,457	2,961	2,006	n.a.
1989-90	14,636	57,480	2,491	3,042	1,927	98.9

(a) Changes in scope of the Agricultural Census. (b) Excludes pastures grown for crops. (c) From 1985-86 includes only establishments with an estimated value of agricultural operations of \$20,000 or more.

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 ha	tonnes	'000 ha	tonnes	'000 ha	tonnes			
1841-42	2	1.40	-	1.12	-	1.12			
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
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
1951-52	653	1.14	337	1.13	157	0.63	104	11.9	24.8
1956-57	582	1.47	494	1.56	173	0.87	121	13.8	23.2
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
1977-78	1,090	0.47	1,073	0.55	130	0.43	138	15.7	31.5
1978-79	1,295	1.61	1,091	1.30	171	1.04	219	15.7	31.3
1979-80	1,424	1.65	984	1.55	129	1.12	160	15.7	30.7
1980-81	1,445	1.14	989	1.17	105	0.91	161	15.8	30.4
1981-82	1,427	1.18	1,032	1.19	127	0.76	194	16.0	30.3
1982-83	1,398	0.49	1,005	0.66	124	0.52	152	15.9	29.1
1983-84	1,564	1.81	1,104	1.64	153	1.17	258	15.8	27.9
1984-85	1,378	1.47	1,122	1.64	128	1.03	161	16.3	27.0
1985-86(e)	1,432	1.24	1,153	1.46	107	1.01	143	15.2	24.5
1986-87	1,616	1.40	955	1.67	113	1.32	199	15.7	23.1
1987-88	1,556	1.16	876	1.44	132	1.02	180	15.9	23.0
1988-89	1,520	0.90	837	1.24	156	0.85	195	16.4	23.3
1989-90	1,557	1.67	900	1.92	172	1.45	248	16.7	24.6

(a) Wheaten only to 1906-07, thence all kinds. (b) Bearing and non-bearing. (c) From 1951-52, private orchards and those no longer worked have been omitted. (d) Statistics not collected and particulars estimated. (e) From 1985-86 includes only establishments with an estimated value of agricultural operations of \$20,000 or more.

## RURAL PRODUCTION

### Livestock and Associated Produce

Year	Livestock numbers				Slaughtering				
	Cattle			Pigs	Sheep and lambs	Cattle and calves	Pigs	Wool produc- tion (a)	Milk produc- tion
	Sheep	Total	Dairy cows						
'000	'000	'000	'000	'000	'000	'000	'000 kg	'000 L	
1846-47	681	57							
1851-52	1,250	100							
1856-57	1,962	273		28					
1861-62	3,038	265		69				5,971	
1866-67	3,912	124		60				8,954	
1871-72	4,412	143		96				11,752	
1876-77	6,133	219		102				19,253	
1881-82	6,804	294		120				22,118	
1886-87	6,542	285		140				22,934	
1891-92	7,646	399	80	82				26,133	
1901-02	5,012	225	75	89				20,209	
1906-07	6,625	326	98	111				22,193	
1911-12	6,172	394	122	93	1,276	87	88	27,372	127,077
1916-17	5,091	289	144	119	686	62	90	17,025	136,174
1921-22	6,257	419	166	88	1,208	95	103	26,202	188,199
1926-27	7,284	340	127	79	1,091	143	122	32,824	183,817
1931-32	6,609	265	128	110	1,379	81	136	30,400	227,309
1936-37	7,905	328	170	85	1,697	166	177	34,747	289,581
1941-42	10,246	399	179	114	2,070	154	289	47,683	358,687
1946-47	7,959	424	187	134	1,662	146	159	42,193	426,878
1951-52	11,470	437	176	63	1,547	216	114	61,454	393,237
1956-57	14,984	622	195	92	2,329	252	124	85,642	408,694
1961-62	16,415	659	183	170	3,140	201	232	93,886	434,152
1962-63	15,737	679	190	145	3,467	254	235	94,050	433,697
1963-64	16,402	694	185	153	2,996	279	214	95,481	433,244
1964-65	17,289	697	182	196	3,100	275	241	97,856	465,065
1965-66	17,993	690	176	224	3,474	277	298	104,160	447,325
1966-67	17,864	687	170	222	3,358	265	316	107,725	448,699
1967-68	16,405	695	157	242	4,019	245	310	101,000	403,693
1968-69	18,392	865	163	288	2,977	220	317	105,714	467,377
1969-70	19,747	1,026	149	351	4,232	249	386	124,529	482,959
1970-71	19,166	1,196	145	389	5,101	264	435	117,258	469,773
1971-72	17,970	1,495	151	479	5,144	290	436	117,922	457,732
1972-73	15,651	1,583	148	499	4,549	393	527	106,006	424,265
1973-74	16,431	1,692	138	385	2,595	359	448	100,131	434,107
1974-75	17,621	1,869	142	349	2,984	465	344	107,452	426,371
1975-76	17,279	1,891	142	326	3,561	549	342	101,912	397,500
1976-77	15,132	1,608	126	317	3,426	656	344	98,442	354,912
1977-78	14,073	1,242	117	311	3,240	744	376	87,092	316,681
1978-79	14,940	1,086	110	330	2,523	659	402	87,355	321,199
1979-80	16,046	1,067	107	398	3,451	502	472	95,459	331,345
1980-81	17,056	1,091	104	394	3,549	539	519	105,052	319,438
1981-82	16,709	1,013	102	374	3,339	580	528	103,617	305,648
1982-83	15,448	828	101	405	4,072	629	540	103,007	340,292
1983-84	16,368	813	101	416	2,846	447	551	106,913	381,484
1984-85	17,263	846	102	402	3,428	434	589	108,463	371,942
1985-86 (b)	17,506	854	100	408	3,856	429	588	111,564	364,480
1986-87	17,234	912	100	422	4,009	461	643	115,805	373,642
1987-88	17,352	947	97	441	4,154	453	602	122,420	377,062
1988-89	17,414	943	92	450	3,961	408	659	120,600	369,528
1989-90	18,363	969	90	437	4,588	456	621	107,547	355,979

(a) Year ended March to 1979-80. (b) From 1985-86 includes establishments with an estimated value of agricultural operations of \$20,000 or more.

**GROSS VALUE OF RURAL PRODUCTION  
(\$'000)**

Year	Agricultural				Pastoral			Total rural production
	Wheat	Barley	Fruit (including vines)	Total crops	Wool (a)	Total	Dairying	
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
1926-27	19,052	1,685	4,082	30,181	8,937	12,140	3,895	48,357
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
1936-37	14,955	1,766	4,191	26,044	8,720	12,315	4,310	44,366
1941-42	13,913	4,490	4,725	30,142	10,294	13,875	6,735	53,016
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	152,244	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	95,054	136,070	39,016	408,842
1969-70	82,332	23,724	43,330	184,284	91,224	148,939	40,834	386,041
1970-71	40,562	34,902	45,991	164,895	65,525	123,858	43,918	347,038
1971-72	76,381	40,295	49,753	213,206	85,701	153,068	47,262	430,704
1972-73	44,588	27,506	54,415	177,768	164,577	261,753	47,808	503,315
1973-74	196,444	68,276	52,347	392,747	173,180	n.a.	(b)27,541	772,523
1974-75	163,922	119,305	77,719	432,455	122,442	n.a.	31,498	705,446
1975-76	118,063	105,865	77,401	373,062	131,865	n.a.	30,170	676,873
1976-77	73,726	93,807	90,318	330,398	153,550	n.a.	30,436	709,603
1977-78	50,349	50,553	99,747	287,931	145,277	n.a.	34,293	696,739
1978-79	265,159	118,303	110,481	607,348	161,985	n.a.	37,407	1,080,204
1979-80	357,058	192,758	120,174	785,848	215,423	n.a.	42,341	1,341,567
1980-81	253,598	165,418	129,307	692,726	246,646	n.a.	48,953	1,321,495
1981-82	269,453	168,727	149,173	759,240	260,548	n.a.	51,912	1,428,587
1982-83	120,849	98,132	132,924	505,432	258,848	n.a.	67,412	1,194,336
1983-84	466,138	273,466	155,067	1,119,546	289,266	n.a.	73,996	1,785,028
1984-85	350,518	249,179	184,522	958,753	297,183	n.a.	70,372	1,634,301
1985-86	327,881	207,314	183,078	916,462	330,150	n.a.	74,529	1,598,917
1986-87 (c)	334,283	182,175	194,946	975,433	389,279	n.a.	80,758	1,816,446
1987-88	301,342	151,162	215,053	937,043	575,348	n.a.	87,496	2,017,035
1988-89	289,677	167,437	289,841	1,064,627	612,190	n.a.	93,542	2,220,652
1989-90	516,195	281,752	284,581	1,442,421	597,296	n.a.	98,860	2,566,927

(a) Shares of profits from sale of wool under war-time disposal schemes excluded. (b) Dairying before 1973-74 included the value of dairy cattle and pigs slaughtered. From 1973-74 dairying consists of milk intake by factories for market milk sales and manufacture. (c) From 1985-86 figures are based on Agricultural Census production except for wool. Before 1985-86 the valuation is adjusted to industry estimates e.g. Wheat Board receivals. Wool valuation is based on industry estimates.

## MANUFACTURING

Year	Number of establish- ments	Persons employed (a)	Salaries and wages paid (b)	Value added					All groups
				Food etc.	Basic metal products	Transport equip- ment	Paper etc.		
				\$m	\$m	\$m	\$m	\$m	
1968-69	2,994	116,254	347.6	89.8	64.5	158.2	42.0	643.1	
1969-70	2,977	119,856	385.8	104.0	79.9	157.2	49.4	714.6	
1970-71			Census not conducted for 1970-71						
1971-72	2,979	121,678	469.3	134.5	80.0	141.3	61.1	803.0	
1972-73	2,914	125,489	523.2	152.8	93.5	155.1	66.2	896.7	
1973-74(c)	2,984	131,368	665.3	176.3	134.8	187.1	76.6	1,109.7	
1974-75	2,131	117,394	796.8	216.9	164.8	249.8	88.8	1,335.3	
1975-76	2,287	117,099	871.6	252.9	135.7	285.4	102.9	1,485.7	
1976-77	2,242	114,103	981.4	293.8	153.2	249.1	113.3	1,597.0	
1977-78	2,170	105,832	1,015.2	315.4	148.2	257.3	128.6	1,672.2	
1978-79	2,119	106,440	1,052.0	332.5	206.9	301.4	136.6	1,851.4	
1979-80	2,143	105,621	1,185.9	356.0	248.6	447.9	156.5	2,233.0	
1980-81	2,131	104,086	1,283.0	422.8	246.5	426.6	172.6	2,387.4	
1981-82	2,219	103,624	1,445.7	485.7	242.9	445.6	197.3	2,620.4	
1982-83	2,099	90,372	1,502.3	547.4	214.4	551.6	206.9	2,708.6	
1983-84	2,110	91,698	1,472.2	534.4	270.6	449.7	218.2	2,841.5	
1984-85	2,196	92,533	1,604.0	528.9	286.7	490.1	279.0	3,095.0	
1985-86			Census not conducted for 1985-86						
1986-87	2,267	90,258	1,809.1	623.5	411.9	625.6	317.8	3,732.5	
1987-88	2,505	95,168	2,003.4	n.a.	n.a.	n.a.	n.a.	n.a.	
1988-89	2,543	103,096	2,315.1	n.a.	n.a.	n.a.	n.a.	n.a.	

(a) At 30 June. Includes working proprietors. (b) Excludes the drawings of working proprietors. (c) From 1974-75 excludes single establishment enterprises employing fewer than four persons.

NOTE: Comparable details of above industry classifications before 1968-69 are not available.

## MINING PRODUCTION

Year	Principal minerals produced							Value of production (b) \$m
	Copper and concentrate	Iron ore (a)	Coal	Natural gas	Crude oil	Condensates	LPG	
	tonnes	'000 tonnes	'000 tonnes	millions m <sup>3</sup>	'000 kilolitres	'000 kilolitres	'000 tonnes	
1846	6,565							0.3
1856	11,980							0.8
1861	11,440							0.9
1866	23,661							1.7
1871	26,948							1.3
1876	28,597							1.2
1881	25,871							0.8
1886	18,713							0.6
1891	16,894	7						0.6
1896	5,030	-						0.5
1901	8,743	-						1.1
1906	8,340	76						1.7
1911	6,017	43						0.9
1916	7,396	191						2.5
1921	1,557	515						2.1
1926	235	593						2.9
1931	22	293						1.3
1936	458	1,918						5.2
1941	615	2,276						7.1
1946	-	1,847	138					6.1
1951	2	2,439	395					9.9
1956	12	3,645	489					(c)47.9
1961	8	4,055	1,133					58.2
1962	4	3,567	1,414					54.0
1963	16	4,310	1,536					62.4
1964	55	4,437	1,764					67.6
1965	116	4,463	2,048					67.9
1966	143	4,876	2,053					72.3
1967	1,470	4,645	2,077					69.3
1968	518	5,566	2,112					77.4
1969	3,666	7,042	2,246					98.5
1970(d)	(e)249	7,425	2,155	628				104.2
1971	2,287	7,400	1,626	909				112.3
1972	2,819	6,301	1,536	964				111.6
1973	9,662	6,874	1,571	1,095				134.3
1974	8,830	6,065	1,494	1,255				131.4
1975	10,037	5,448	1,798	1,263				126.0
1976	18,433	4,479	1,819	1,447				131.9
1977	16,390	3,450	1,920	2,006				153.1
1978	11,975	2,189	1,757	2,516				144.6
1979	14,784	2,705	1,514	2,860				174.2
1980	14,183	2,701	1,723	3,430				224.0
1981	12,955	2,370	1,737	3,870				226.1
1982	16,310	2,241	1,425	4,260				259.4
1983	16,287	1,337	1,435	4,440	208.9	87.4		404.9
1984	15,578	1,469	1,269	4,489	1,047.6	168.8		641.9
1985	7,456	1,676	1,757	4,733	1,105.4	741.1	366	971.7
1986	10,609	1,876	2,182	4,864	1,441.0	843.5	525	1,099.2
1987	-	2,056	2,435	4,792	1,402.6	718.8	464	899.9
1988	1,686	1,975	2,557	4,747	1,308.9	860.4	523	949.7
1989	17,352	2,346	2,675	4,827	1,650.7	752.3	579	1,080.8

(a) Includes jaspilite. (b) Value at site of production. Quarries included from 1916. (c) Comparability affected by revaluation of iron ore.

(d) Year ended 30 June from 1970. (e) Metallic content from 1969-70.

Source: South Australian Department of Mines and Energy.

**TRADE**  
**Overseas Exports**

Year	Value of exports				Proportion of total exports: selected countries of destination				
	Total	Wheat and flour	Barley	Wool (b)	Japan	New Zealand	UK	USA	Other coun- tries
		\$'000		\$'000					
1861	1,837	76		1,302		3.42	89.46		7.12
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
1945-46	40,307	7,407	718	14,917	-	4.95	25.45	26.43	43.17
1950-51	215,348	36,852	14,662	109,900	5.90	2.39	39.58	14.41	37.72
1955-56	195,332	26,266	14,069	70,063	6.71	7.47	38.70	10.71	36.41
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
1977-78	661,887	51,915	39,512	114,517	16.21	6.50	4.10	6.25	66.94
1978-79(a)	922,754	101,750	71,470	147,010	15.18	5.74	3.45	9.16	66.47
1979-80	1,599,199	376,726	191,806	183,745	11.00	4.42	2.01	6.45	76.12
1980-81	1,400,028	307,803	153,118	225,336	12.25	5.53	2.27	5.40	74.55
1981-82	1,275,938	212,636	105,280	213,237	11.00	5.87	2.11	7.26	73.76
1982-83	1,227,125	99,364	64,486	176,830	11.92	6.15	7.62	7.91	66.40
1983-84	1,635,825	272,454	229,422	202,681	11.07	5.94	6.61	7.52	68.86
1984-85	1,921,413	406,345	215,887	202,160	13.10	6.44	4.45	8.38	67.63
1985-86	1,988,233	305,995	236,026	231,253	17.96	5.21	3.66	6.83	66.34
1986-87	2,047,147	321,268	181,771	282,040	14.72	6.83	3.56	9.40	65.49
1987-88	2,263,360	286,086	102,454	378,065	17.37	7.30	4.15	9.52	61.66
1988-89	2,446,832	287,472	132,080	395,125	15.70	9.33	4.41	7.02	63.54
1989-90	2,841,290	438,411	243,459	271,287	12.43	10.34	4.16	8.41	64.66

(a) From 1978-79 statistics are 'State of Origin', previously 'State of Lodgement of Documents'. (b) From 1983-84 'Wool and other animal hair'.

TRADE

Overseas Imports; Retail Sales and Turnover

Year	Value of imports		Proportion of total imports: selected countries of origin				Retail sales of goods (b)	Turnover of retail establish- ments
	Total	Metals, metal manufactures, and machinery (a)	Japan	UK	USA	Other		
			\$'000	\$'000	%	%	%	%
1861	2,756	310		80.14	0.32	19.54		
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		
1945-46	17,556	3,622	-	62.28	10.13	27.59		
1950-51	112,002	50,446	1.98	48.31	8.42	41.29		
1955-56	125,504	64,656	3.18	49.17	11.70	35.95	347.8	
1956-57	90,813	40,536	1.39	44.01	12.26	42.34	362.3	
1957-58	94,205	40,792	1.85	46.37	11.91	39.87	367.2	
1958-59	90,693	40,534	2.56	42.08	11.50	43.86	387.2	
1959-60	119,493	57,962	2.69	43.89	12.15	41.27	436.6	
1960-61	142,764	72,570	5.37	32.66	17.61	44.36	448.9	
1961-62	103,386	46,774	3.28	31.95	21.87	42.90	451.6	
1962-63	139,826	71,820	4.08	31.83	22.92	41.17	479.9	
1963-64	179,651	94,302	4.72	24.75	30.63	39.90	525.3	
1964-65	204,856	108,243	8.01	23.72	29.11	39.16	574.5	
1965-66	198,156	103,032	6.84	23.32	27.25	42.59	602.0	
1966-67	196,771	97,861	7.69	21.64	27.72	42.95	627.1	
1967-68	215,619	113,215	7.16	17.29	32.71	42.84	663.6	
1968-69	231,956	134,222	11.19	19.82	27.35	41.64	706.9	
1969-70	201,223	98,204	10.77	21.49	21.50	46.23	762.3	
1970-71	198,358	98,358	14.44	25.10	17.32	43.14	818.8	
1971-72	189,748	83,083	15.08	22.83	14.48	47.61	890.9	
1972-73	199,978	88,271	20.48	17.49	15.08	46.95	1,037.1	
1973-74	313,915	142,187	22.57	12.03	16.91	48.49	1,237.3	
1974-75	482,077	216,355	19.17	14.20	13.10	53.53	1,503.3	
1975-76	501,476	203,407	18.57	11.14	14.84	55.45	1,781.1	
1976-77	629,309	259,695	22.23	8.52	13.38	55.87	2,025.4	
1977-78	628,568	248,236	21.79	8.85	12.47	56.89	2,162.7	
1978-79	865,554	437,704	18.97	6.74	26.75	47.54	2,344.7	
1979-80	882,457	300,393	17.25	7.18	13.09	62.48	2,528.3	
1980-81	1,072,425	363,735	20.00	5.07	12.55	62.38	2,852.1	
1981-82	1,337,301	563,750	21.24	3.69	13.38	61.69	3,181.7	
1982-83	1,244,243	515,143	23.36	4.26	15.92	56.46	3,512.3	4,340.5
1983-84	1,318,693	504,009	24.32	3.93	16.33	55.42	3,840.0	4,738.4
1984-85	1,603,240	722,555	29.86	4.71	16.62	48.81	4,065.6	5,015.5
1985-86	1,736,757	953,754	38.62	4.71	15.22	41.44	4,484.8	5,529.2
1986-87	1,501,827	761,376	37.96	4.47	13.12	44.45	4,663.2	5,735.4
1987-88	1,804,614	959,309	35.99	6.66	12.37	44.98	4,910.8	6,056.2
1988-89	1,861,399	966,523	30.62	4.85	17.24	47.29	n.a.	6,458.4
1989-90	2,049,952	1,035,909	25.87	5.76	20.65	47.72	n.a.	6,829.4

(a) Includes motor vehicles and other transport equipment.



## TRANSPORT AND COMMUNICATION ( '000)

Year	<i>Motor vehicles on register</i>			<i>Drivers and riders licences in force</i>	<i>Telephone services in operation (a)</i>
	<i>Cars and station wagons</i>	<i>Utilities, vans, trucks, buses</i>	<i>Total (incl. cycles, scooters)</i>		
1901					1,831
1906					2,510
1911					6,086
1916					10,184
1921	13.2		21.4		15,984
1926	42.5	8.2	62.5	79,659	33,547
1931	(b)45.1	(b)12.1	(b)67.3	106,053	39,552
1936	53.7	19.4	84.3	92,227	39,911
1941	54.5	24.4	86.2	122,280	47,962
1946	64.4	31.4	107.2	137,979	53,126
1951	108.9	51.2	183.6	215,157	74,457
1956	161.4	73.2	257.5	299,158	107,649
1957	171.9	75.7	269.3	315,044	114,390
1958	184.3	77.8	283.0	328,833	122,311
1959	200.3	81.0	301.5	340,973	131,060
1960	214.9	84.1	318.3	369,584	138,019
1961	224.5	82.5	325.2	393,869	144,502
1962	238.9	82.5	338.1	397,803	152,785
1963	258.8	83.9	358.2	414,656	162,012
1964	280.1	86.3	380.5	427,717	173,314
1965	298.1	86.4	397.4	447,985	182,249
1966	314.0	87.3	413.5	464,778	192,922
1967	327.7	87.1	427.6	481,496	203,191
1968	342.9	87.6	443.9	491,765	212,842
1969	364.7	89.6	468.2	513,687	224,174
1970	384.0	90.7	490.1	535,184	239,452
1971	400.8	91.5	510.3	550,745	251,330
1972	420.4	92.8	536.0	570,562	261,608
1973	445.4	97.9	572.4	592,481	278,687
1974	468.6	100.6	601.3	612,693	298,300
1975	491.5	104.0	628.9	637,248	311,804
1976	513.0	112.7	657.9	658,671	334,948
1977	528.8	116.9	677.5	690,663	361,334
1978	536.5	118.7	685.6	716,991	390,852
1979	(c)542.0	(c)117.7	(c)689.3	737,410	420,871
1980	(d)554.9	(d)120.0	(d)708.6	751,458	449,724
1981	564.9	123.8	725.4	762,372	480,873
1982	(c)580.4	(c)126.8	(c)744.0	779,110	507,234
1983	593.3	132.6	763.7	797,971	532,107
1984	613.9	138.6	790.2	814,046	558,380
1985	634.7	144.9	816.9	833,118	591,448
1986	651.5	148.2	835.8	845,073	605,272
1987	654.2	148.0	834.9	858,931	628,541
1988	666.2	149.1	846.3	863,796	646,658
1989	680.3	152.1	862.5	882,176	674,037
1990	698.9	154.9	883.5	904,388	(e)707,176
1991	n.y.a.	n.y.a.	n.y.a.	944,004	n.y.a.

(a) At 30 June from 1916; at 31 December in earlier years. (b) Previously all motor vehicles had to be registered but from 1930 only those in actual use on the roads. (c) At Census 30 September. (d) At 30 June from 1980. (e) Figures from 1989-90 include Northern Territory.

## PUBLIC FINANCE

Year	State Government								
	Expenditure			Public debt		Local government revenue			
	Total revenue	From revenue	From loan (net)	Total	Per head	State taxation	From rates	Government grants	Total
\$'000	\$'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	715	348	198	740
1910-11	8,363	7,929	3,752	(a)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	(b)4,036	2,040	451	3,474
1950-51	67,344	66,885	33,871	296,776	405.20	8,104	3,830	1,963	7,579
1955-56	118,805	121,665	42,666	512,179	603.60	16,150	8,162	4,381	16,310
1960-61	172,559	170,182	44,739	722,038	743.20	23,425	13,076	(c)3,524	25,034
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	1,425,333	1,138.35	219,190	53,804	19,118	96,000
1975-76	1,036,985	1,034,698	160,602	1,394,702	1,094.66	272,760	65,670	33,551	123,287
1976-77	1,174,025	1,183,180	175,552	1,495,737	1,163.00	314,280	76,385	34,881	137,364
1977-78	1,167,196	1,192,063	171,329	1,605,834	1,243.10	323,502	85,680	38,052	156,074
1978-79	1,264,705	1,258,252	161,087	1,702,221	1,310.81	342,307	95,525	34,774	168,771
1979-80	1,384,589	1,384,589	149,584	1,781,600	1,365.84	369,490	104,891	38,501	186,925
1980-81	1,548,299	1,554,885	149,363	1,872,699	1,426.49	387,453	118,745	45,233	214,213
1981-82	1,705,499	1,766,772	84,913	1,962,590	1,481.20	438,152	132,691	52,097	240,507
1982-83	1,923,808	2,032,765	85,433	2,035,762	1,521.38	(d)537,148	150,923	64,814	288,107
1983-84	2,160,679	2,190,399	143,775	2,010,259	1,485.78	659,427	167,603	82,419	331,803
1984-85	2,639,937	2,626,240	173,877	1,990,537	1,457.63	788,143	187,089	100,118	384,267
1985-86	2,966,345	2,955,350	253,757	(e)3,664,000	2,661.24	834,853	206,899	103,927	417,693
1986-87	3,217,176	3,214,926	363,519	4,003,000	2,883.38	916,220	228,336	98,811	445,853
1987-88	4,225,669	4,215,265	295,823	3,960,000	2,825.75	1,077,025	252,148	108,696	488,353
1988-89	4,206,418	4,123,056	282,311	4,042,000	2,852.50	1,264,011	279,332	104,493	532,460
1989-90	4,554,612	4,483,597	291,081	4,174,000	2,915.01	1,346,557	307,909	105,727	573,373

(a) Debt of Northern Territory and Port Augusta-Oodnadatta railway transferred to Commonwealth Government. (b) Uniform taxation in force from 1941-42. (c) Excludes reimbursement for work done on behalf of Highways Department from 1961. (d) Before 1982-83 excluded taxation paid to Special Funds and statutory authorities. From 1966-67 the coverage of this item does not completely coincide with SA Treasury classifications. (e) Source: State Treasury. From 1985-86 refers to State public sector net indebtedness, previously indebtedness to Commonwealth only.

## PRIVATE FINANCE

Year	Banking				
	Trading banks		Savings banks deposits at 30 June	General insurance revenue (a)	Friendly societies members at 30 June
	Advances	Deposits			
	\$m	\$m	\$m	\$'000	No.
1856		1	—		
1861	3	1	—		
1866	6	3	—		
1871	6	3	1		
1876	9	7	2		
1881	13	10	2		
1886	19	10	3		
1891	16	16	4		
1896	9	15	6		
1901	9	13	8		
1906	11	16	10		
1911	17	22	15		
1916	20	27	20		65,540
1921	27	44	33	1,305	70,155
1926	32	52	44	2,045	77,791
1931	44	45	43	1,627	(b)
1936	44	52	51	1,859	71,658
1941	40	64	55	2,643	76,357
1946	32	93	132	2,705	80,419
1951	62	207	196	9,298	71,591
1956	109	241	272	20,590	57,216
1961	147	270	333	32,363	51,551
1962	(c)165	(c)277	362	33,740	51,198
1963	182	285	416	37,499	50,765
1964	202	324	476	41,695	50,946
1965	244	348	519	45,433	51,258
1966	274	365	559	50,121	51,109
1967	299	369	605	56,114	51,001
1968	345	389	644	59,981	51,070
1969	363	409	692	65,354	50,880
1970	391	423	733	70,640	50,796
1971	411	436	788	76,020	50,488
1972	448	474	874	89,173	50,077
1973	516	620	1,060	98,678	50,664
1974	672	816	1,175	127,473	50,779
1975	749	973	1,395	(d)187,316	49,888
1976	914	1,214	1,617	231,649	48,057
1977	1,147	1,301	1,781	267,640	45,815
1978	1,419	1,302	1,945	(e)266,594	43,051
1979	1,728	1,437	2,138	263,903	41,575
1980	1,938	1,652	2,277	282,268	39,431
1981	2,149	1,813	2,457	307,453	38,061
1982	2,390	1,901	2,596	354,432	36,171
1983	2,562	1,933	2,979	428,695	35,017
1984	2,840	1,977	3,327	n.a.	n.a.
1985	3,430	2,903	3,113	n.a.	n.a.
1986	4,161	3,750	2,971	n.a.	n.a.
1987	4,625	3,784	3,390	n.a.	n.a.
1988	5,433	4,521	3,808	n.a.	n.a.
1989	6,536	5,728	3,594	n.a.	n.a.
1990	(f)13,771		12,074	n.a.	n.a.

(a) Year ended 30 June. (b) Membership at 30 June from 1932; previously 31 December. (c) Until 1961, average of balances at close of business on Wednesdays during June. From 1962, average of weekly figures for the month of June. (d) From 1974–75 premium income only; details of interest, dividends and rent no longer available. (e) Details of brokers are excluded from 1977–78. (f) From 1990 all banks.

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