

South Australian Year Book



1973

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SOUTH AUSTRALIAN

YEAR BOOK

1973

Malcolm Harrington

The lights of the city of Adelaide reflected
in the River Torrens—in the foreground is
the Morphett Street Bridge.





*South
Australian
Year Book*

No. 8 : 1973

D. L. J. AITCHISON

*Deputy Commonwealth Statistician
and Government Statist*

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS
SOUTH AUSTRALIAN OFFICE

By Authority:

Wholly set up and printed in Australia by
A. B. JAMES, Government Printer, Adelaide

Registered at the General Post Office, Adelaide, for transmission through the post as a book

PREFACE

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

This volume, the eighth issue of the Year Book, includes special articles on the Reptiles of South Australia, Consumer Protection, John Martin's Christmas Pageant and Metric Conversion. Other items of special interest are shipping search and rescue, health services usage, State planning areas, Motor Vehicles Census 1971, Census 1971 characteristics of population and dwellings, standard time and times of sunrise and sunset. To make room for the additional material and in accordance with normal practice with related publications, some chapters or portions of chapters have been condensed but in such cases appropriate cross-references are given indicating in which earlier volumes the more complete information may be found. A list of special articles which appeared in previous issues is shown on page 663.

Other official statistics of South Australia are published in different media, each chosen as the most appropriate to meet a particular need. Mimeographed issues include bulletins or press releases which give, as soon as available, figures and some comment concerning a particular subject and a *Monthly Summary of Statistics* which supplies the latest information on a selected range of subjects. Printed publications embrace a *Quarterly Abstract of South Australian Statistics* which presents an up-to-date and reasonably comprehensive range of data on economic and social conditions in this State, a *Pocket Year Book of South Australia* containing a wide range of statistical information in a compact form and a *Statistical Register of South Australia* (issued both in parts and in one volume) in which is provided, without comment, detailed historical and current statistics in many fields. The full list of these publications appears on page 665. This office also maintains an Information Service which, on request, supplies available statistical information and advice on which publications are appropriate.

Individual Year Books and a comprehensive range of statistics are also published by the Commonwealth Statistician covering the whole of Australia (but giving information about the States) and by the other Deputy Commonwealth Statisticians for their States. The details of such publications are available at each office of the Bureau.

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

D. L. J. AITCHISON
Deputy Commonwealth Statistician
and Government Statist

Commonwealth Bureau of Census and Statistics
195 North Terrace
Adelaide

July 1973

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EXPLANATORY NOTES

Symbols Used

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

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) or cents unless another currency is specified.

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

PART 1

NATURAL ENVIRONMENT

1.1 DESCRIPTION

SIZE AND LOCATION

The State of South Australia has the Indian 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 two miles to the west of this meridian.

The State is approximately 746 miles from east to west at the northern boundary and 710 miles at the head of the Great Australian Bight; from north to south it varies from 391 miles near the western extremity to approximately 823 miles near the eastern boundary; its coastline, excluding islands, measures approximately 2,200 miles. South Australia covers a total area of 380,070 square miles (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.

TIME

The second of Co-ordinated Universal Time (UTC), upon which civil time-keeping is based, has been equal to the second of Atomic Time since 1 January 1972, and is defined by the International Committee of Weights and Measures (CIPM) to be 9,192,631,770 cycles of a resonance transition between two hyper-fine energy states of the caesium 133 atom. This second is very nearly equal

to the second of Ephemeris Time (ET) defined by the CIPM as the fraction $1/31,556,925.9747$ of the tropical year for 1900 January 0 at 12 hours ET. The organisation responsible for keeping time of day is the Bureau Internationale de l'Heure (BIH) in Paris, France. It uses an averaging process on results from caesium standards in several countries to obtain UTC.

Participating laboratories include Paris Observatory, Greenwich Observatory, United States Naval Observatory (USNO) in Washington U.S.A., National Bureau of Standards in Boulder U.S.A., and others. Methods of time comparison used to obtain the data include LORAN-C, television signals, VLF frequency transmissions and portable atomic standards.

In practice the BIH maintains a uniform atomic time scale without adjustments known as International Atomic Time (TAI). UTC has the same frequency, but is occasionally stepped in time by a whole second—a leap second. The occurrence of a leap second is determined and advertised by the BIH in pursuance of recommendations of the International Astronomical Union (IAU) and the Consultative Committee of International Radio (CCIR). All time services adjust their clocks and time signal transmissions accordingly, and change their broadcast values of $DUTI=UTI-UTC$, where UTI is an unsmoothed, location-independent time scale determined from the rotation of the earth by astronomical observations. At present UTI is losing about three milliseconds per day relative to UTC, that is, the earth is rotating more slowly than in 1900. For many astronomical, geodetic, space tracking and navigational purposes it is desirable that UTC and UTI differ by no more than 0.7 seconds, hence UTC is stepped as required. The steps may be forwards or backwards, but always occur at 0000 UT on the first of a month preferably January or July.

Clocks throughout the world were retarded by exactly one second at 10.30 a.m. South Australian summer time, on 1 January 1973, a time which corresponds to midnight on 31 December 1972 at Greenwich, England.

Australian time-keeping establishments reference UTC by maintaining caesium standards which are periodically checked against BIH by portable clocks, usually through the agency of USNO, by continuous monitoring of VLF and Omega transmissions, and experimentally by lunar techniques.

UTC is maintained in Australia by the Positional Astronomy Section of the Division of National Mapping and is disseminated by the Australian Post Office (APO). Time interval and frequency are maintained by the National Standards Laboratories (NSL) of the Commonwealth Scientific and Industrial Research Organization (CSIRO) and, by authorisation of CSIRO, by National Mapping and APO. Caesium standards are kept as clocks by National Mapping, NSL, APO, space tracking stations, defence and research establishments and a private company. Each clock is compared simultaneously daily against networked Australian Broadcasting Commission television transmissions whence, using an averaging technique similar to that of the BIH, a mean Australian UTC is obtained.

Standard Time

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

Greenwich Mean Time, one hour thirty minutes ahead of Western Standard Time used in Western Australia and thirty minutes behind Eastern Standard Time used by States on the east coast of Australia.

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

In several years during the 1939-45 War daylight saving in summer time was introduced by the Commonwealth Government under National Security Regulations. Summer time was fixed at one hour in advance of standard time from 2 a.m. on 1 January 1942 to 2 a.m. on 29 March 1942, from 2 a.m. on 27 September 1942 to 2 a.m. on 28 March 1943 and from 2 a.m. on 3 October 1943 to 2 a.m. on 26 March 1944.

Under the Daylight Saving Act, 1971 daylight saving was introduced for the first time since the 1939-45 War at 2 a.m. on 31 October 1971 and remained in force until 2 a.m. on 27 February 1972. During this period 'South Australian summer time', one hour ahead of South Australian Standard Time, was adopted.

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

SUNRISE AND SUNSET

Times generally quoted for sunrise and sunset are the instants, morning and evening, at which the zenith distance of the Sun's centre is $90^{\circ} 50'$, thus allowing $16'$ for the Sun's semi-diameter and $34'$ for refraction at the horizon, but not allowing for any irregularity or elevation of the local horizon.

The first part of calculating the time of sunrise and sunset is to find the Sun's right ascension (α), declination (δ), and time of transit over the Greenwich meridian (t). This is done either by using well-known formulae in celestial mechanics, or by consulting daily tabulations in *The Astronomical Ephemeris* published annually by Her Majesty's Stationery Office.

Secondly, if ϕ is the latitude of the observer (south negative), λ is his longitude, and λ_0 is the longitude of the meridian defining his standard time zone, then the times of sunrise R and sunset S are obtained to sufficient accuracy by:

$$\cos H = (\cos 90^{\circ} 50' - \sin \phi \sin \delta) / \cos \phi \cos \delta$$

$$R = t + (\lambda_0 - \lambda) - H$$

$$S = t + (\lambda_0 - \lambda) + H$$

where λ , λ_0 and the semi-diurnal arc H are expressed in time rather than angular measure in the formulae for R and S.

The times of sunrise and sunset vary slightly from year to year, but recur on a four-year cycle. The variation is because the year is not an exact number of days, and is thus closely connected to the leap year concept. However the following table for 1974 can be used for all other years as the maximum deviation from the times shown on any one day is two minutes.

NATURAL ENVIRONMENT

Times of Sunrise and Sunset, Adelaide, 1974^(a)

Date	January		February		March		April	
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m
1.....	0505	1933	0535	1924	0602	1854	0628	1812
3.....	0507	1933	0537	1922	0604	1852	0629	1809
5.....	0508	1933	0539	1920	0606	1849	0631	1806
7.....	0510	1933	0541	1919	0607	1846	0633	1803
9.....	0512	1933	0543	1917	0609	1844	0634	1801
11.....	0514	1933	0545	1915	0611	1841	0636	1758
13.....	0516	1933	0547	1913	0613	1838	0637	1755
15.....	0517	1932	0549	1911	0614	1835	0639	1753
17.....	0519	1932	0551	1909	0616	1833	0640	1750
19.....	0521	1931	0553	1906	0617	1830	0642	1748
21.....	0523	1930	0555	1904	0619	1827	0644	1745
23.....	0525	1929	0557	1902	0621	1824	0645	1743
25.....	0528	1928	0559	1859	0622	1821	0647	1741
27.....	0530	1927	0600	1857	0624	1819	0648	1739
29.....	0532	1926	—	—	0625	1816	0650	1736
31.....	0534	1924	—	—	0627	1813	—	—

Date	May		June		July		August	
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m
1.....	0651	1734	0714	1712	0724	1714	0710	1733
3.....	0653	1732	0715	1712	0724	1715	0709	1735
5.....	0655	1730	0717	1711	0724	1716	0707	1736
7.....	0656	1728	0718	1711	0723	1717	0705	1738
9.....	0658	1726	0719	1711	0723	1718	0703	1739
11.....	0659	1725	0720	1711	0722	1719	0701	1741
13.....	0701	1723	0720	1711	0722	1721	0659	1742
15.....	0702	1722	0721	1711	0721	1722	0657	1744
17.....	0704	1720	0722	1711	0720	1723	0654	1745
19.....	0705	1719	0722	1711	0719	1724	0652	1747
21.....	0707	1717	0723	1711	0718	1726	0650	1748
23.....	0708	1716	0723	1712	0717	1727	0647	1750
25.....	0710	1715	0724	1712	0716	1728	0645	1751
27.....	0711	1714	0724	1713	0714	1730	0642	1753
29.....	0712	1713	0724	1714	0713	1731	0640	1754
31.....	0714	1713	—	—	0711	1733	0637	1755

Date	September		October		November		December	
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m
1.....	0636	1756	0553	1818	0514	1845	0455	1914
3.....	0633	1758	0550	1820	0512	1846	0455	1915
5.....	0630	1759	0548	1821	0510	1848	0455	1917
7.....	0627	1800	0545	1823	0508	1850	0455	1919
9.....	0625	1802	0542	1824	0507	1852	0455	1921
11.....	0622	1803	0539	1826	0505	1854	0455	1922
13.....	0619	1805	0537	1828	0504	1856	0456	1924
15.....	0616	1806	0534	1829	0502	1858	0456	1925
17.....	0613	1808	0531	1831	0501	1900	0457	1926
19.....	0610	1809	0529	1833	0500	1902	0458	1927
21.....	0607	1811	0526	1834	0459	1904	0458	1929
23.....	0605	1812	0524	1836	0458	1906	0459	1930
25.....	0602	1813	0522	1838	0457	1908	0500	1930
27.....	0559	1815	0520	1840	0456	1910	0502	1931
29.....	0556	1816	0517	1842	0456	1912	0503	1932
31.....	—	—	0515	1844	—	—	0504	1932

(a) Times are in South Australian Standard Time on a 24-hour clock.
h hours m minutes

On a given date, the change in H (ΔH minutes) for a place on the same longitude as Adelaide but at latitude ϕ_2 degrees is:

$$\Delta H = 4 \sec^2 \phi \operatorname{cosec} H (\tan \delta + .0145 \sin \phi \sec \delta) (\phi_2 - \phi_1)$$

where ϕ_1 is the latitude of Adelaide.

The following table shows latitude corrections for places in South Australia on the same longitude as Adelaide. Latitude 26° south defines the border between Northern Territory and South Australia while 38° south approximates the latitude of Mount Gambier.

Latitude Corrections for Places on Adelaide's Longitude, to be Added to Adelaide Times

Date	Latitude							
	38° South		32° South		29° South		26° South	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	Minutes							
21 January	-7	8	7	-6	13	-12	20	-18
23 February	-3	3	4	-4	7	-7	11	-11
20 March	-1	1	0	0	0	0	0	0
19 April	4	-4	-4	3	-7	6	-11	10
20 May	7	-7	-6	6	-12	13	-18	19
20 June	8	-8	-7	7	-14	15	-22	23
23 July	7	-7	-6	6	-12	12	-18	18
23 August	4	-4	-3	4	-6	7	-9	11
23 September	0	1	0	0	0	0	0	0
23 October	-4	4	4	-4	7	-7	11	-11
21 November	-7	8	7	-7	13	-13	20	-20
20 December	-9	9	8	-8	16	-16	23	-23

For places on a different longitude from Adelaide, four minutes for each degree west of this longitude must be added to the times of sunrise and sunset given for Adelaide. The span of variation for places in South Australia is minus 10 minutes at the Victorian border to plus 38 minutes at the West Australian border.

Under Section 119 of the Road Traffic Act, 1961-1972 motor vehicle lamps are required to be alight between sunset and sunrise when the vehicle is being driven or is standing on a road.

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 500 feet above sea level and over 80 per cent less than 1,000 feet. Even the dominant mountains, the Mount Lofty-Flinders Ranges system, nowhere exceed 4,000 feet and have at no point proved difficult barriers to communication.

On the other hand the pattern of communication and development has been greatly influenced by the nature of the coastline, the south-easterly trend of which is interrupted by two major indentations, Spencer Gulf and Gulf St Vincent. These two relatively shallow depressions cut into the settled areas a distance of approximately 200 and 100 miles respectively. The resultant natural divisions

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

Kangaroo Island, approximately 300 miles in circumference and covering 1,680 square miles, is the predominant island off the South Australian coastline. There are, however, approximately 100 islands in all, relatively few of which are utilised.

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

The most important mountains are the Mount Lofty-Flinders Ranges system. Kangaroo Island structurally belongs to these ranges which, together with parallel subsidiary ranges, extend north from Cape Jervis some 500 miles 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 2,384 feet. 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 3,822 feet is the highest point. North of Peterborough there is a divergence from the main range which stretches *via* the Olary Ridges to the Barrier Range and Broken Hill. In the far north the ranges again diverge; one spur circling the northern end of Lake Torrens and the other ending north of Lake Frome. The Flinders Ranges contain some unusual basins of which Wilpena Pound is perhaps the best known.

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

The western half of the State is largely occupied by a low plateau over which an intermittent series of low ranges, including the Warburton, Stuart, Denison, Peake and Everard Ranges, stretch from the Flinders to the somewhat higher Musgrave Ranges in the far north-west. Mount Woodroffe (4,723 feet), 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 seventy feet over the 399 miles between the border and the sea. For the 134 miles 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 50 feet 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 150 miles in length.

GENERAL GEOLOGICAL BACKGROUND

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

The main physiographic feature is the Kangaroo Island-Mount Lofty-Flinders Ranges arc of hills, which, although of no great elevation, extend over a distance of 500 miles. The rocks of this arc, which are predominantly ancient sediments, have been folded and faulted in a spectacular manner providing many classic examples of textbook tectonics; they owe their present prominence to repeated fold and uplift movements throughout geological time. The hills of the chain rise from the coastal plains of Gulf St Vincent to the west, the plains of the Murray River to the east, and the Lake Frome and Lake Eyre plains in the north-east and north. The basement rocks are also exposed to the west of Spencer Gulf, but are more completely levelled off, and constitute a geological shield of greater antiquity than the Mount Lofty arc.

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

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

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

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

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

SEISMICITY

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

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

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

1.2 CLIMATE AND METEOROLOGY

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

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

METEOROLOGICAL OBSERVATIONS

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

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

RAINFALL

Average Annual Rainfall

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

Distribution of Rainfall, South Australia and Australia

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

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

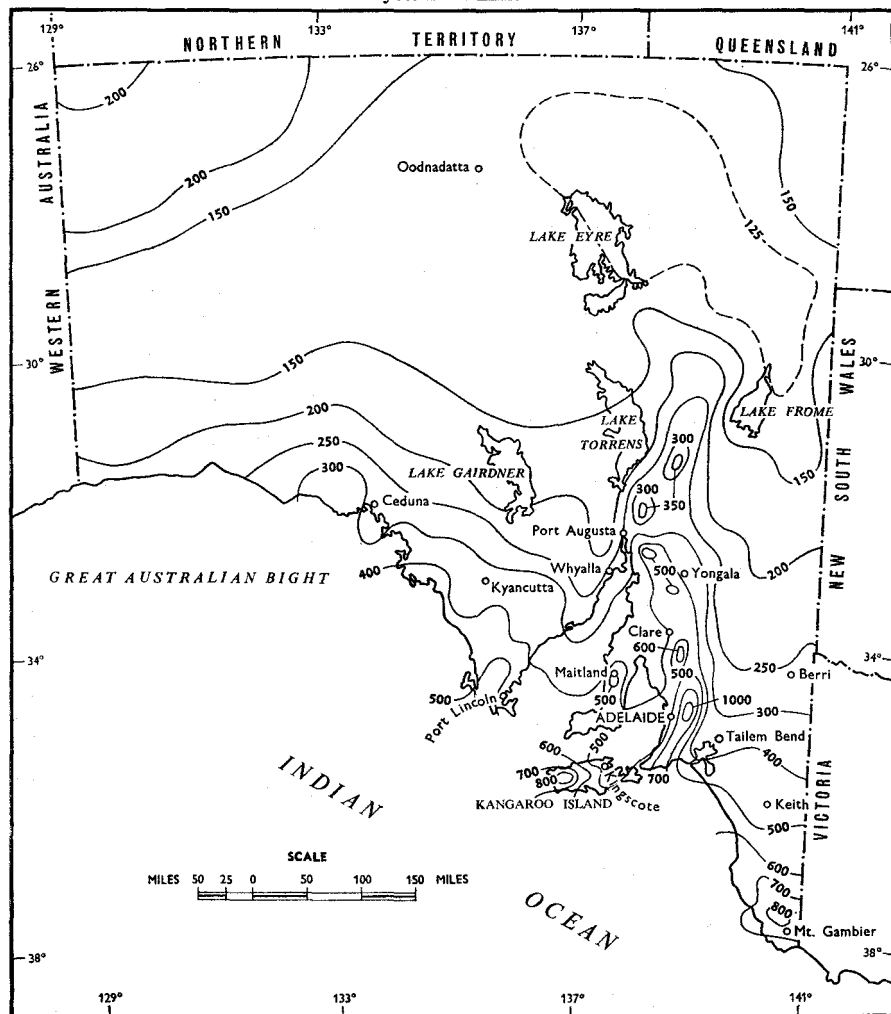
Over the southern half of South Australia the main source of rain is from showers associated with unstable moist westerly airstreams occurring fairly regularly during winter. The wettest part of the State is in the Mount Lofty

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

As can be seen from the map below the isohyets generally show highest annual averages along the ranges and southern parts of the coast. Averages fall off rapidly to less than 250 millimetres within 150 to 250 kilometres inland, and then decrease more gradually to below 125 millimetres in the vicinity of Lake Eyre. This area is the driest part of Australia, and there have been protracted periods when the average there has been less than 75 millimetres.

SOUTH AUSTRALIA AVERAGE ANNUAL RAINFALL

Based on all years of records
Isohyets in millimetres



Seasonal Distribution of Rainfall

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

By contrast, the occurrence of rain over interior districts is quite erratic, but southern parts of the interior still exhibit a discernible trend for winter maxima. Records collected over the years from this northern half of the State show that heavy rains of up to 75 millimetres may occur in any month of the year, but on the other hand at least two or three months without any significant rain at all are experienced practically every year. Average monthly rainfalls at seventeen selected recording stations are shown in the table below. The average number of rain days (*i.e.* days receiving 0.25 millimetres or more of rain) is also shown.

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

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
AVERAGE RAINFALL (a) (millimetres)													
Adelaide	19	20	24	44	69	73	66	62	51	44	31	26	529
Berri	17	22	12	17	28	26	24	27	27	24	20	19	263
Ceduna	12	16	18	22	41	40	41	37	26	25	21	23	322
Clare	25	24	25	47	75	81	81	79	71	54	36	30	628
Keith	18	23	20	35	57	52	54	56	51	42	32	27	467
Kingscote	15	18	18	37	60	74	78	64	46	36	24	19	489
Kyancutta	12	18	13	22	37	40	42	42	31	26	24	21	328
Maitland	17	22	20	44	65	69	66	62	50	42	29	22	508
Mount Gambier ...	33	29	36	63	85	97	106	99	77	63	46	41	775
Oodnadatta	16	23	15	7	16	13	11	8	8	8	9	13	147
Port Augusta	15	17	17	19	26	27	20	22	22	23	18	16	242
Port Lincoln	13	15	19	37	57	74	77	67	49	35	23	18	484
Port Pirie	18	17	17	29	40	42	32	35	34	30	23	23	340
Stirling	38	38	43	95	143	177	163	155	122	97	62	49	1182
Tallem Bend	18	22	21	28	43	40	42	41	39	35	28	28	383
Whyalla	19	22	17	17	26	26	22	24	25	23	22	21	264
Yongala	20	20	16	26	36	41	39	45	38	32	27	24	364
AVERAGE NUMBER OF DAYS OF RAIN (b)													
Adelaide	4	4	5	10	13	15	16	16	13	11	8	6	121
Berri	3	4	3	6	8	9	11	10	7	7	5	4	77
Ceduna	3	3	3	6	10	12	12	11	8	7	6	4	85
Clare	5	5	5	10	12	15	16	16	12	11	8	7	122
Keith	4	4	4	9	12	13	15	15	12	11	8	6	113
Kingscote	4	4	5	10	14	16	19	18	13	11	8	7	129
Kyancutta	4	4	4	7	12	12	14	14	10	9	7	5	102
Maitland	4	5	5	10	13	15	17	16	12	11	8	6	122
Mount Gambier ...	7	8	9	14	17	18	21	20	17	16	13	10	170
Oodnadatta	3	2	2	2	3	3	2	2	2	3	3	3	30
Port Augusta	3	3	3	5	7	7	10	9	6	6	6	4	69
Port Lincoln	4	5	5	11	15	17	19	19	13	12	8	6	134
Port Pirie	3	3	3	6	8	10	11	10	8	7	6	4	79
Stirling	6	7	7	13	15	17	18	18	15	14	11	9	150
Tallem Bend	4	5	4	9	12	13	13	13	11	10	8	6	108
Whyalla	3	3	3	5	6	7	9	8	6	6	5	4	65
Yongala	4	4	4	7	10	12	14	13	9	8	7	5	97

(a) For all years of record to end of 1971. (b) Days receiving 0.25 millimetres or more. Other than for Adelaide (see page 19) figures relate to standard 30 year period 1931-1960.

Rainfall Intensity

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

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

Ardrossan (18 February 1946)	206 mm
Carpa (18 February 1946)	199 mm
Hesso (18 February 1946)	187 mm
Wilmington (1 March 1921)	181 mm
Wynbring (28 February 1921)	178 mm

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

Snow and Hail

The occurrence of snow in South Australia is infrequent and is mainly confined to the Mount Lofty Ranges and southern Flinders Ranges. Most falls are very light and do not persist for a very long period because of the relative warmth of the ground. Collated reports of snow in the Mount Lofty Ranges show a total of 127 days of snow experienced over a period of 131 years to the end of 1971. While most falls have occurred during the months June to September, snow has been experienced as early as 25 April (1916) and as late as 3 December (1955).

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

Floods

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

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

Droughts

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

The driest year in terms of actual rainfall was 1967, when an all-time low figure for the year of 257 millimetres was recorded in Adelaide. However, the 1914 drought is generally recognised as being the most severe experienced, and in that year districts where drought was almost unknown were seriously affected. The average wheat yield fell to only 1.41 bushels per acre, little more than one tenth of the yield in previous seasons. In places the River Murray was just a series of waterholes.

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

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

Rainfall Probability

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

TEMPERATURE

Seasonal Temperature Conditions

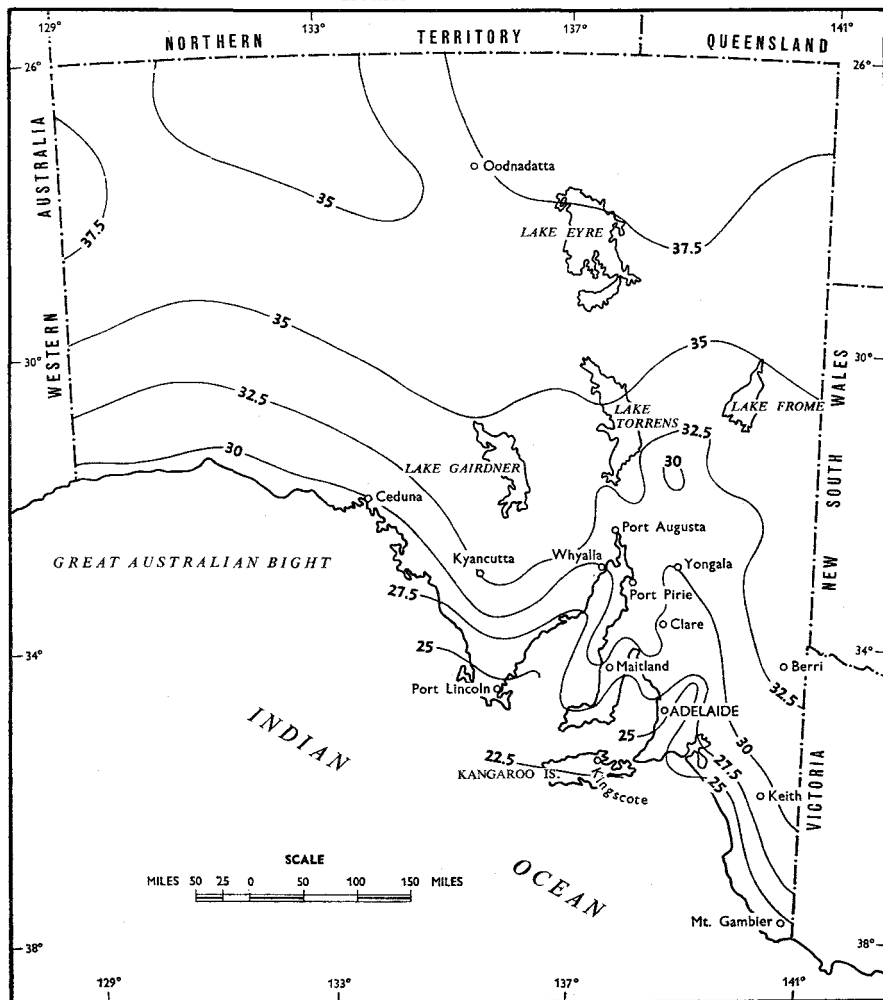
Air temperature is normally recorded under standard conditions in a Stevenson screen. Isotherms of the average maximum temperatures in a mid-summer month (January) and of the average minimum temperature in a mid-winter month (July) are shown on the maps on pages 13 and 14 respectively. The isotherms are more or less parallel to the coastline but the cooling effect associated with higher altitudes of the Mount Lofty and Flinders Ranges is clearly shown.

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

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

SOUTH AUSTRALIA
 MEAN MAXIMUM TEMPERATURE: JANUARY

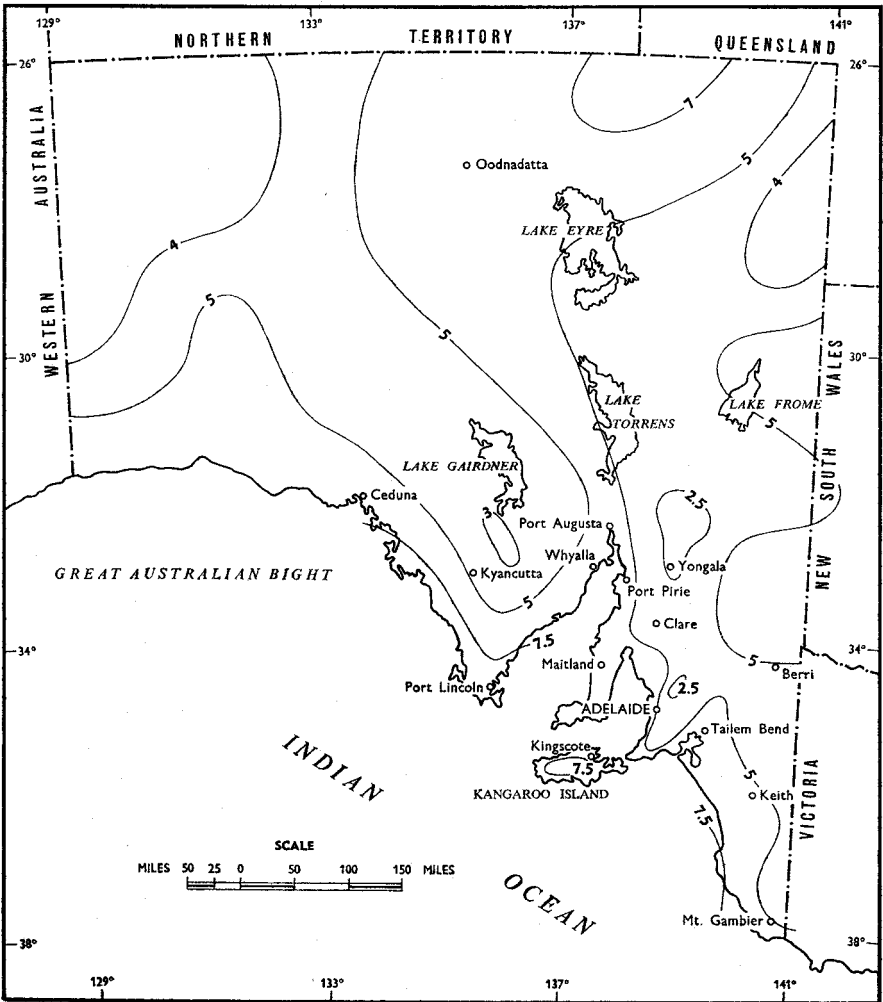
Based on all years of records
 Isotherms in ° Celsius



In the spring months, September to November, with gradually rising temperatures and longer hours of sunshine, crops and pastures grow rapidly. In this period severe frosts are sometimes experienced and these can cause considerable damage to fruit crops during the bud, flower, and small fruit stages.

When a pressure distribution causes very dry and warm air from the rapidly heating interior to flow over the State for two or three consecutive days, developing crops can be seriously affected by the drying affect of this air mass.

SOUTH AUSTRALIA
MEAN MINIMUM TEMPERATURE: JULY
Based on all years of records
Isotherms in ° Celsius



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 for comparison purposes.

Mean Maximum Temperatures: Selected Stations, South Australia

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

Mean Minimum Temperatures: Selected Stations, South Australia

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

The highest temperature recorded in South Australia was 50.7°C at Oodnadatta on 2 January 1960, and the lowest -8.1°C at Yongala on 16 June 1959.

HUMIDITY

'Relative humidity' at a particular temperature is the ratio of the actual vapour pressure to the saturated vapour pressure (at that temperature) expressed as a percentage. Since relative humidity depends not only on the actual water vapour

content of the air, but also on air temperature, there is a tendency for highest relative humidities to be associated with low temperatures during the early morning hours, and conversely, the lowest relative humidity values tend to occur during the warmest part of the afternoons when measurements of under 20 per cent are not uncommon.

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

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

SUNSHINE AND CLOUD

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

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

WIND

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

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

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

EVAPORATION

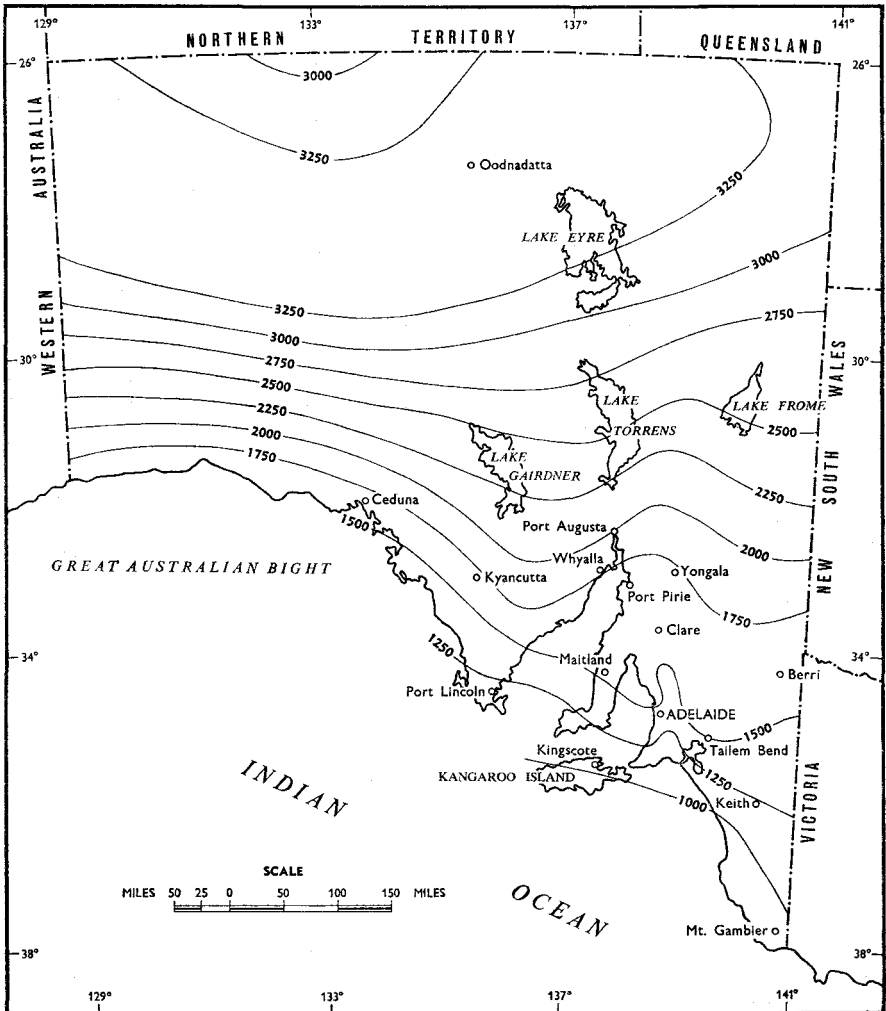
In South Australia most measurements of evaporation have been made with tanks, each 0.91 metres internal diameter and 0.91 metres deep, sunk into the soil so that the rim is only 25 millimetres or so above the surface.

However, early in 1967 a change-over to the standard American Class A pan was made. These pans, 1.22 metres in diameter and 0.3 metres deep, are placed above ground level on wooden stands.

The annual average evaporation using the sunken tank method has varied from under 1,000 millimetres along the south-east coastal fringe to more than 3,250 millimetres over a large area around and to the west of Oodnadatta in the far north (see map below). About half the area of the State has an

SOUTH AUSTRALIA
AVERAGE ANNUAL EVAPORATION

Based on all years of records in millimetres



evaporation rate exceeding 2,500 millimetres per annum, and this high rate is all the more significant when it is considered that the average annual rainfall over most of the northern half is less than 150 millimetres. A critical survey of the evaporation network and methods of observation, together with tabulations of the results of Australian observations appears in the Bureau of Meteorology publication *Evaporation in Australia* (Bulletin No. 44).

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. During the first year or two, observations were made at his private residence in Adelaide and, for some months, in Government House grounds.

In May 1860 the Observatory on West Terrace was completed and the instruments were moved to that site. For over 100 years the observational site at Adelaide has remained practically unchanged. Minor shifts occurred in 1940 and 1962 but these were within 100 metres of the original observatory site.

Temperature records at Adelaide date from 1858 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 1948 when use of the Greenwich Stand was discontinued. However, the Greenwich Stand readings remained the official record until 1948, thus there is a slight discontinuity in the temperature records in that year and means are weighted towards the Greenwich Stand 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 46.1°C 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 the coldest month, when the mean maximum is only 15°C with the extreme lowest minimum being 0°C (0.6°C in the Stevenson Screen) on 24 July 1908. August is only slightly warmer than July, but after August steadily rising temperatures are experienced during the spring months.

Climatological Data, Adelaide

(1) Temperature and Relative Humidity

Month	Temperature					Relative Humidity (9 a.m.)		
	Maximum		Minimum		Mean	Mean	Highest Monthly Mean	Lowest Monthly Mean
	Mean	Highest Recorded	Mean	Lowest Recorded				
Years of Record	115	115	115	115	115	104	104	104
	°C	°C	°C	°C	°C	%	%	%
January ...	29.6	47.6	16.4	7.3	23.0	40	59	29
February ..	29.4	45.3	16.6	7.5	23.0	43	57	30
March	26.9	43.6	15.1	6.6	20.5	47	62	29
April	22.7	37.0	12.6	4.2	17.8	56	72	37
May	18.7	31.9	10.2	2.7	14.5	67	77	49
June	15.8	25.6	8.3	0.3	12.1	75	84	63
July	14.9	23.3	7.2	0.0	11.1	76	87	66
August ...	16.4	29.4	7.8	0.2	12.1	70	80	54
September .	18.9	35.1	8.9	0.4	13.9	60	72	44
October ...	22.1	39.4	10.8	2.3	16.5	51	67	29
November .	25.2	45.3	12.9	4.9	19.1	44	58	31
December .	27.8	45.9	14.9	6.1	21.3	40	56	31
Year .	22.4	47.6	11.8	0.0	17.1	56	87	29

(2) Rainfall and Wind

Month	Rainfall				Wind			
	Mean	Highest Monthly and Yearly Total	Highest in One Day	Mean Days of Rain (a)	Average Speed	Highest Gust	Prevailing Direction	
							9 a.m.	3 p.m.
Years of Record	133	133	133	133	20	55	55	55
	mm	mm	mm	No.	km/h	km/h		
January ..	19	84	58	4	13	116	SW	SW
February ..	20	155	141	4	12	106	NE	SW
March	24	117	89	5	11	125	S	SW
April	44	154	80	10	11	130	NE	SW
May	69	197	70	13	11	113	NE	NW
June	73	218	54	15	12	108	NE	N
July	66	138	44	16	12	148	NE	NW
August ...	62	157	57	16	13	121	NE	SW
September .	51	148	40	13	13	111	NNE	SW
October ...	44	133	57	11	13	121	NNE	SW
November .	31	113	75	8	13	130	SW	SW
December .	26	101	61	6	13	121	SW	SW
Year .	529	786	141	121	12	148	NE	SW

(3) Other Conditions

Month	Mean Daily Sunshine	Clear Days (b)	Mean Amount of Cloud (c)	Days of Fog	Days of Lightning	Amount of Evaporation (d)	Vapour Pressure 9 a.m.	Mean Barometric Pressure (e)
Years of Record	90	57	104	72	100	95	104	115
	Hours	No.		No.	No.	mm	mb	mb
January ..	10.0	12.4	3.1	0.0	2.1	236	11.9	1013.3
February ..	9.3	10.9	3.3	0.0	1.7	191	12.3	1014.3
March	7.8	10.9	3.5	0.0	1.7	159	11.7	1017.2
April	5.9	6.6	4.5	0.0	1.4	96	11.4	1019.8
May	4.8	4.6	5.1	0.4	1.5	58	10.8	1020.1
June	4.2	4.0	5.3	1.1	1.5	37	9.9	1019.7
July	4.3	3.6	5.2	1.3	1.5	37	9.4	1020.0
August ...	5.2	4.9	4.9	0.6	1.7	53	9.6	1019.1
September .	6.1	5.7	4.6	0.2	1.8	81	9.9	1017.6
October ...	7.2	5.7	4.5	0.0	2.7	128	10.3	1016.0
November .	8.5	6.6	4.2	0.0	3.0	172	10.4	1015.1
December .	9.4	9.0	3.7	0.0	2.2	219	11.1	1013.3
Year .	6.9	85.0	4.3	3.6	22.8	1,467	10.5	1017.1

(a) Days receiving 0.25 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 Standard Australian Tank (period 1870-1966). (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 from January to March is under 25 millimetres and completely rainless months in this period are not uncommon. In fact, each of the five months December to April has at some time been recorded as completely dry, and in the period January to March 1893 there were sixty-nine consecutive rainless days. On the other hand, heavy rain is occasionally experienced at this time of the year and on 7 February 1925 rainfall was 141 millimetres—a record for one day.

Each month from May to September rainfall averages over 50 millimetres and in this period the rain is fairly reliable. June is the wettest month, but the average is still under 75 millimetres for the month.

The 133 year annual rainfall average is 529 millimetres, and annual totals have ranged from a low of 257 millimetres in 1967 to a high of 786 millimetres in 1851.

Other Conditions

Relative humidity in Adelaide is at its lowest in January when the average 9 a.m. reading (which approximates the average for the whole twenty-four hours) is 39 per cent. This low value of the relative humidity reduces the severity of heat waves in Adelaide. In fact, the relative humidity is very low for most months of the year, only becoming higher in winter, with the average at 9 a.m. reaching as high as 75 per cent in June and July.

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

WEATHER CONDITIONS IN SOUTH AUSTRALIA: 1971 and 1972

Autumn 1971

Rainfall aggregates over the North West Interior District were below normal except along the eastern and southern fringes, the largest deficits, of around 60 per cent, being recorded over the extreme north-west corner. The Far North District received up to double normal autumn rains, as did the North East with the exception of its extreme southern section where the totals were close to normal.

Throughout the settled or agricultural areas rainfall was generally well above average. Many totals in the southern parts of the Western, Lower North and Central Districts were double normal amounts; the other districts of the settled areas had aggregates of between 25 and 50 per cent above normal. Although some rain fell over the settled areas in March and May, by far the heaviest monthly amounts were gauged during April, particularly in the second half of the month.

During the first two weeks of April, almost all day temperatures throughout the State were unseasonably high and 5 or more degrees (Celsius) above normal. Although this trend was not maintained during the remainder of April nor during May, mean maximum temperatures were mostly 1 or 2 degrees above normal. Mean minima were also all above normal 0.5 to 2 degrees over the interiors and between 1 and 3 degrees over the settled areas. No frosts were reported during Autumn until the second half of May and then occurrences were generally confined to the Central and Northern Highlands.

Winter 1971

Following the useful rains of Autumn some pastoral areas received further worthwhile falls throughout the Winter. However, the north-west corner of the North West District and the north-east corner of the Far North District recorded winter deficits of around 30 to 50 per cent. The eastern half of the North West, the western half of the Far North and the northern part of the North East recorded good surpluses while the remaining sections of these three districts had close to normal winter rains. Most of the rain fell during June and August.

Throughout the settled areas there were isolated pockets along the eastern Mount Lofty Ranges and over the eastern section of the Upper South East District where the winter rainfalls were as much as 30 per cent below normal. However, over the remainder of the settled areas, winter aggregates were generally slightly above normal with a few surpluses of up to 50 per cent being recorded along the coastal section of the Upper and Lower North Districts. Although August was the wettest month, both June and July yielded useful amounts.

Mean winter maximum temperatures were generally 0.5 to 1 degree (Celsius) below normal. Mean minima were mainly normal but for the Far West coast and the extreme north-eastern section, means were 1 to 2 degrees below normal.

Spring 1971

Spring rains over the pastoral areas were generally above normal with the western section of the North East District and most of the North West being the best-served areas. The only inland area which failed to receive reasonable rains was the extreme north-east of the State. Most of the rain fell during September and November.

The settled areas also experienced above-normal rains with the largest surpluses of up to 50 per cent occurring over all of the Lower South East District, the Adelaide Plains, County Light, western Kangaroo Island, southern Eyre Peninsula and the eastern part of the Upper North District. Along the New South Wales and Victorian Borders there were small sections with below-normal rains, the worst served being the Upper Murray Valley where some spring aggregates were one-third of normal. Nearly all of this rain was recorded during September and November.

No significant hot spells occurred although a few inland centuries were recorded, mainly during October. Mean maxima were 0.5 to 2 degrees (Celsius) above normal in the western half, 1 to 2 degrees below normal in the eastern settled areas and within 1 degree of normal elsewhere. Mean spring minima were generally about normal.

Summer 1971-72

Over the pastoral areas there was a great variation in rainfall aggregates. While all of the north-east and southern half of the Far North Division received above-normal amounts with some stations receiving up to four times normal the North West District and the remainder of the Far North recorded disappointing rains. Some aggregates in the Lake Gairdner and Oodnadatta areas were about one-eighth of normal. District averages were 20 per cent below normal for the North West, 120 per cent above normal for the Far North, and 150 per cent above normal for the North East. Most of the rain fell early in January.

Although rains were generally above normal throughout the settled areas, a large section of the Far West received about half normal summer rainfall. Aggregates over the Upper North, Yorke Peninsula, Kangaroo Island and the Lower South East were almost double normal in a number of instances. District

averages ranged from slightly above normal over the Murray Mallee to about 50 per cent above normal throughout the remainder of the settled areas, except the Upper North, West Central and Lower South East, where the surplus was between 75 and 150 per cent. Most of the rain fell during December and January.

Mean maximum temperatures were generally below average. Throughout the area bounded by Ceduna in the West, Oodnadatta in the North and Port Augusta in the East and over most of the Central and Mid-North Districts mean maxima were 1 and 2 degrees (Celsius) below average. The remainder of the State experienced mean maxima 1 to 1.5 degrees below average. Mean minima generally displayed only slight deviation from the average.

Autumn 1972

Rainfall was below average throughout the State. Over the pastoral areas there were a few heavy falls near the northern border early in March and light to moderate falls in the North East early in May, otherwise these districts were virtually rainless. Deficits were fairly general over the whole area with district averages being below normal by 80 to 95 per cent.

In the settled areas rainfall was well below normal. The worst served areas were the northern parts of the Western Agricultural and the Upper and Lower North Districts where there were some deficits of 80 to 90 per cent and district averages were down by 70 to 75 per cent. Most of the remainder of the settled areas experienced deficits of around 50 per cent, with the Lower South East experiencing a deficit of 39 per cent. Most of the rain fell during April with some further showers over the southern settled areas about the middle of May.

Autumn maximum temperatures were 1 to 2 degrees (Celsius) above normal throughout most of the State. Minimum temperatures were mainly below average in the Northern and Western Districts, part of the Mount Lofty Ranges and part of the South East Districts. In the remainder of the State, minimum temperatures were near or slightly above average. Frost became more widespread during the latter half of May.

Winter 1972

Rain totals were light over the pastoral areas with only small areas recording in excess of half their normal amounts. Throughout the settled areas, most stations recorded winter totals within 20 per cent of normal. The rainy season did not commence until late in June.

Day temperatures for most of June were well above average, while during July and August they were near to or slightly below average. On the other hand, overnight temperatures were low throughout June when frequent heavy frosts were recorded; however, July and August night temperatures were near normal.

Spring 1972

After late winter rains which recouped the agricultural situation over much of the State, Spring was disappointingly dry. The purely pastoral areas recorded about half normal totals with most of the rain being associated with thunderstorms. Over the agricultural or settled areas, aggregates were also about half normal.

Mean Spring maximum temperatures were almost all within 1°C of normal, although there were several brief bursts of hot weather late in Spring in the interiors; the settled areas experienced mostly mild conditions. A few frosts were reported, mostly during September. Spring minima were generally within 1°C of normal.

Summer 1972-73

Following a dry Spring, the Summer also began on a dry note. It was not until late December that thunderstorms produced light rains over most of the settled areas but very little in the interiors. January was dry at the beginning, but widespread rains at the end of the month assured above normal monthly totals for all the State except over the north-east corner and the far west. Some of the most outstanding rains ever to be experienced over South Australia were recorded during the first six days of February. While this rain did not quite embrace the entire State, there was a 200-mile wide belt, which stretched south-eastwards from the north-west corner of the Murray Mallee, in which more than 75 millimetres fell over a 4-day period. In fact some 4-day totals were in excess of 175 millimetres. On either side of this rain-band totals dropped away very sharply.

Summer rainfall aggregates for the most part reflected the effects of the outstanding February rains. District averages for the North-West and Upper North were 200 and 180 per cent above normal respectively, with many stations gauging three times their normal Summer rains. The smallest aggregates were recorded about the southern coast of the Western District (10 per cent deficit), Kangaroo Island (50 per cent deficit) and over the Lower South East District (10 per cent deficit); these areas normally figure amongst the wettest in the State. The remaining districts had averages between 50 and 100 per cent above normal.

A number of widespread hot spells occurred through the Summer with some brief incidents as early as December, although January was by far the hottest month of the season. Mean Summer maxima which graded from the mid to upper-thirties ($^{\circ}\text{C}$) over the extreme north of the State down to the mid twenties about most of the central and south-east coasts were generally within 1°C of normal.

There were no unusually cool periods at night. In fact most night temperatures followed a trend similar to those established by day temperatures. Mean Summer minima were in the low to mid-twenties in the extreme north of the State, grading gradually southward to be just higher than 10°C over the extreme South East District.

1.3 NATURAL RESOURCES

MINERALS

Iron ore, South Australia's most important mineral, is found in the Middleback Ranges of upper Eyre Peninsula. These ranges lie to the west of the port of Whyalla and extend discontinuously with broad erosion gaps from Iron Knob in the north to Iron Duke in the south, a distance of nearly forty miles. They are composed primarily of iron-rich rocks and contain the only known large deposits of high grade ore in the State. Several deposits of low grade ore have been located on lower Eyre Peninsula.

Barite (barytes) occurs throughout the Adelaide System rocks, in the Mount Lofty and Flinders Ranges, in the Olary district and elsewhere. The Oraparinna mine in the Flinders Ranges is the largest producer of high grade barite in Australia.

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

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

The opal fields at Coober Pedy and Andamooka supply a very large proportion of the precious opal produced in Australia. The estimated value of raw opal production in South Australia exceeded \$11 million in 1971. Most of this is exported to Hong Kong, Japan, the U.S.A. and Germany.

Pyrite from the large deposit near Nairne had been used in the manufacture of sulphuric acid for the fertiliser industry since 1955, but the Brukung mine was closed in May 1972 as it had become uneconomic because of the import of elemental sulphur, mainly from Canada.

South Australia is the major supplier of talc for the Australian home market, the principal occurrences being at Mount Fitton, in the northern Flinders Ranges, and in the Gumeracha district. Other deposits occur at Tumbay Bay and in the Barossa Valley near Lyndoch and Williamstown and at Truro.

Although deficient in bituminous coal resources, South Australia has one deposit of sub-bituminous coal at Leigh Creek. This field supplied 1.5 million tons of coal in 1971 for electric power generation at Port Augusta. Lignite deposits at Moorlands and Inkerman-Balaklava are undeveloped.

Limestone and dolomite together form one of the State's most abundant natural resources. The principal deposits being exploited at present are: limestone at Rapid Bay, Penrice, Angaston and Klein Point; limesand at Coffin Bay, and dolomite at Ardrossan. Large reserves of both limestone and dolomite have been established at Brachina in the Flinders Ranges.

South Australia possesses a wide variety of clays including a number of special varieties, the most noteworthy being ball clay at Woocalla, china clay at Mount Crawford and fire clay at Birdwood, Littlehampton, Tea Tree Gully, Booleroo Centre and Lincoln Gap.

In the past, deposits of other minerals were discovered and exploited until it was not economic to continue with the methods and equipment then available. The most important of these minerals was copper ore, found initially at Kapunda and at Burra in the 1840s and later more extensive deposits were found at Wallaroo in 1859 and Moonta in 1861. These fields played an important part in the development of the colony in the nineteenth century. Uranium deposits were worked extensively at Radium Hill in the 1950s, while less important deposits of gold, silver-lead ores and manganese ore have been exploited over past years.

The intensive mineral exploration activity of the past few years has led to the discovery of economic deposits of natural gas, copper and zinc. Smaller amounts of molybdenite, nickel, tin and lead have also been found.

In 1971 production recommenced at the old mining localities of Burra and Kanmantoo. At Burra an ammonia-leaching plant is being used to treat low grade copper ore from the old Burra mine to produce copper oxide while at Kanmantoo the usual flotation method is being used to produce copper sulphide concentrates.

At present extensive mineral exploration is being carried out in South Australia by Australian and overseas companies who have contracted to spend about \$4 million a year on exploration tenements which they hold. Drilling on the plains to the east of Mount Painter has resulted in the discovery of encouraging deposits of sedimentary uranium, the first to be found in Australia.

Largely as a result of the conditional agreement signed in June 1971, for the supply of natural gas from the Cooper Basin to Sydney, an extensive drilling programme has been maintained to establish the required reserves. During the fifteen months following the signing of the agreement, forty-seven wells were drilled, either in search of new fields or in proving reserves in previously discovered fields. There are now sixteen significant gas and three oil accumulations known in the South Australian part of the Cooper Basin with a further two gas accumulations in the Queensland part.

The indicated natural gas reserves of the Basin are now adequate to meet the conditions laid down in the agreement to supply gas to the Sydney area and this project, involving the construction of a pipeline, approximately 750 miles long from Moomba to Sydney with branches to Newcastle and Port Kembla, is expected to proceed immediately.

It is anticipated that, concurrently with the Sydney project, a liquids line to move crude oil from the Tirrawarra, Moorani and Flylake fields and natural gas condensate from all fields in the Basin to a suitable terminal on the South Australian coast will be constructed.

Locations of mineral deposits referred to are shown on the map on page 27.

UNDERGROUND WATER

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

Water supply for the metropolitan area of Adelaide is derived from reservoirs in nearby ranges and from the River Murray. Reticulation of surface supplies now covers most of the Adelaide Plains, Yorke Peninsula and portions of Eyre Peninsula (see map page 325). In addition there are a number of small areas whose reticulated supplies are derived from groundwater sources by means of bores.

Groundwater suitable for various purposes is available in many areas. Pressure water, also referred to as artesian water, is generally confined to the several sedimentary basins located throughout the State. The largest of these, the Great Artesian Basin, 660,000 square miles in area, of which 120,000 square miles lie in the north-east part of South Australia, covers nearly one-third of the State. The intake area for the principal water-bearing bed lies along the western margins of the highlands in eastern New South Wales and Queensland and natural outlets for the water are mound springs which, in South Australia, lie to the west and south of Lake Eyre. Deep bores are necessary to tap these waters and very large flows have been obtained. However the water is generally too saline for any form of irrigation and its use is confined to stock watering.

The Murray Basin covers 28,000 square miles in South Australia and extends into Victoria and New South Wales. The southern and central portions of the basin contain waters suitable for all purposes while the water quality deteriorates

steadily in a north and north-westerly direction from the southern intake area. Very large yields can often be developed from the bryozoal limestone aquifers at shallow depths and also in some places from sand dune and other local aquifers. Groundwater is used to supply the towns throughout the southern area and is also developed for irrigation and stock. At Padthaway near Naracoorte increasing use is being made of flood irrigation from a high-yielding shallower aquifer for vines and pastures.

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

The Adelaide Plains Basin is part of the larger St Vincent Basin, lying between the Mount Lofty Ranges and the shores of Gulf St Vincent. Good quality water is obtainable in certain portions of this Basin; it is heavily used for market gardening on the northern Adelaide Plains. The danger of serious depletion of the aquifers by overpumping in this area has been recognised and use is now subject to government control. In the Adelaide metropolitan area groundwater is used from time to time to supplement reticulated reservoir water. Bores constructed for this purpose have yielded up to 15 million gallons a day.

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

Groundwater outside the well defined sedimentary basins is often obtainable in useful quantity but its location is not so readily defined. Many bores in folded rocks of the Mount Lofty Ranges and elsewhere provide water supplies for towns, farms and for domestic purposes. Much of the extensive water reticulation of Eyre Peninsula is derived from shallow groundwater basins; Lincoln Basin, Uley-Wanilla Basin and Polda Basin together yielding more than 3 million gallons a day.

It is estimated that the usage of underground water in South Australia exceeds 130 million gallons daily for all purposes. The exploration for, and development of, underground water resources is a continuing responsibility of the South Australian Department of Mines which provides the services of geologists and an extensive drilling organisation.

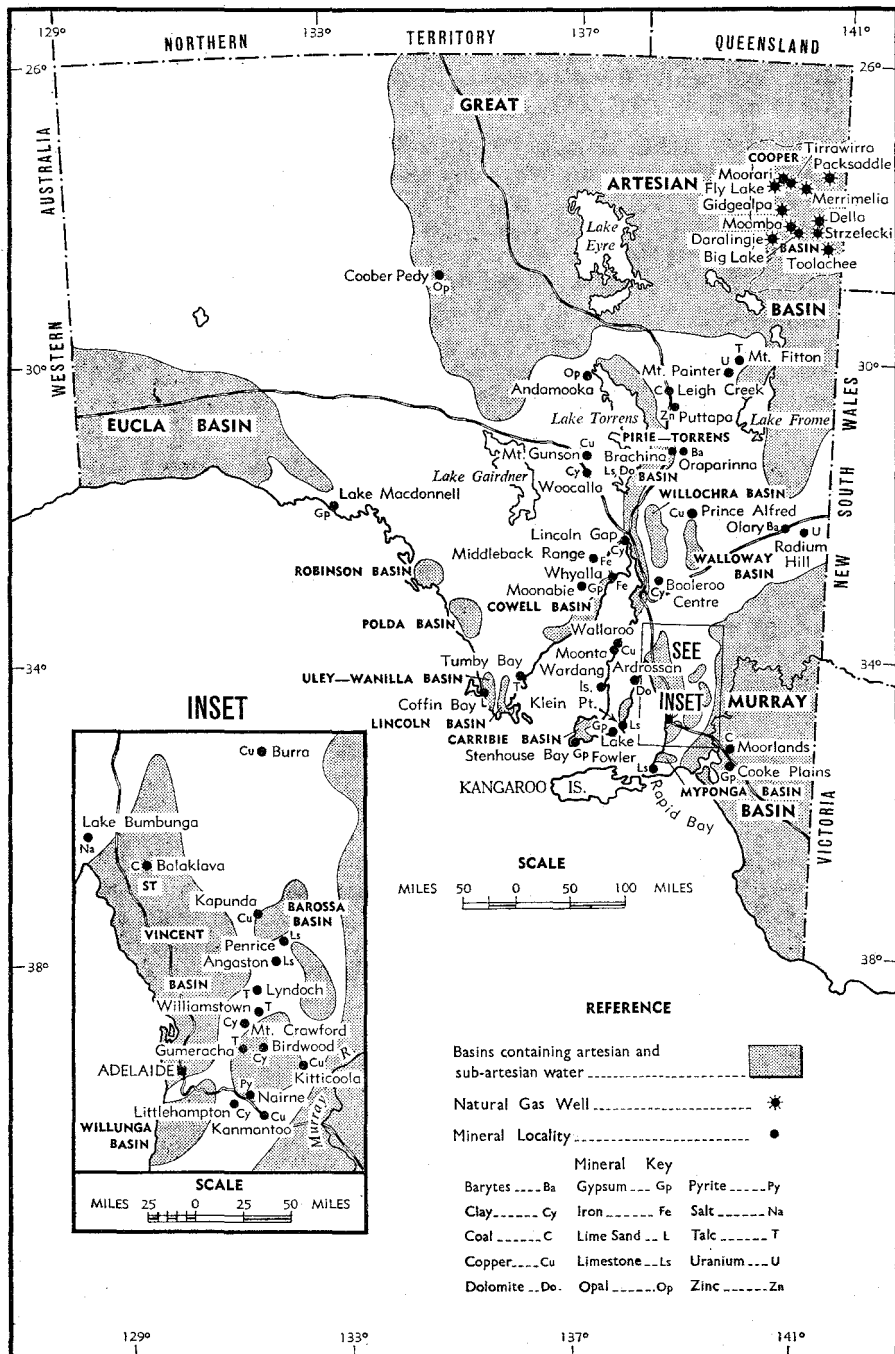
SOILS

General

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

Undoubtedly the most widespread deficiency is phosphorus—low phosphorus contents are typical of South Australian soils. The gravelly ironstone soils of

SOUTH AUSTRALIA
MINERAL RESOURCES AND
ARTESIAN WATER



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

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

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

There are other important features that affect plant growth, such as acidity and alkalinity, supply of trace elements and so on. Information about these and their importance in different localities can be obtained from the South Australian Department of Agriculture and in a bulletin published by the Department entitled *Soils of South Australia's Farm Lands*. The extent of country covered by the different soil groups is illustrated by the *Atlas of Australian Soils* which is being compiled by the Division of Soils, Commonwealth Scientific and Industrial Research Organization (CSIRO). The first sheet of this atlas, published in 1960, includes the areas of higher rainfall country in South Australia and refers to the many soil surveys made in this State.

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

Building Soils

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

1.4 FLORA AND FAUNA

FLORA

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

Eremaean Areas

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

Temperate Areas

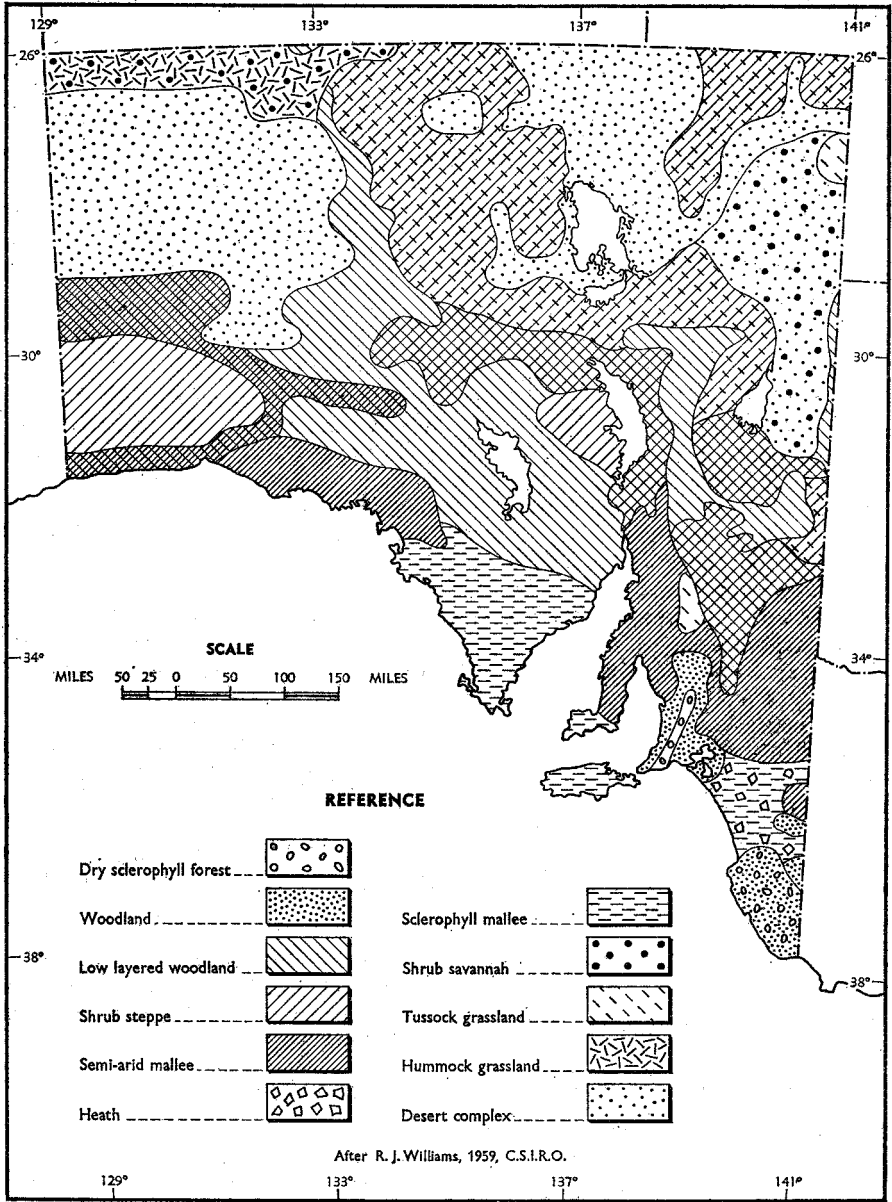
In general, vegetation characteristics of the temperate zone of South Australia succeed each other in a fairly predictable sequence from the highest to the lowest rainfalls. Under the high and intermediate rainfalls (about 750-1,000 millimetres) dry sclerophyll forest is well developed, particularly in the Mount Lofty Ranges, where it constitutes a western outlier of the dry sclerophyll forest system occurring in eastern Australia. *Eucalyptus obliqua* and *Eucalyptus baxteri* predominate, but other species such as *Eucalyptus rubida* (the candlebark) are sometimes prominent. Such forest is replete with lesser trees *Acacia melanoxylon* (blackwood) at a lower canopy level and a rich array of sclerophyllous shrubs and sub-shrubs beneath. Most species have generic analogues in equivalent dry sclerophyll forests of both eastern and western Australia. Sclerophyll forest in South Australia has been cut over extensively and is being invaded by aliens. Lower rainfall areas down to about 400 millimetres per annum support mainly savannah woodlands and layered woodlands with South Australian bluegum (*Eucalyptus leucoxylon*) and peppermint gum (*Eucalyptus odorata*) as predominant trees. Associated trees include river redgum (*Eucalyptus camaldulensis*), especially along river and creek frontages, sheoak (*casuarina* spp.), and manna gum (*Eucalyptus viminalis*). In these vegetations the grass stratum is expressed and the shrub stratum rather suppressed. These vegetations are now almost entirely replaced by agricultural areas.

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

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

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

SOUTH AUSTRALIA
VEGETATION MAP



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

A more detailed description of the vegetation was included on pages 26-37 of the *South Australian Year Book* 1967 and should be referred to for a description of the plant species included in the vegetation formations shown in the map on page 30 of this issue.

FAUNA

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

Only 7.8 per cent of South Australia—a fragmented, southern fringe—is favoured with an annual rainfall of 400 or more millimetres; more than 80 per cent receives 250 millimetres or less. The moister areas are restricted mainly to three peninsulas, to Kangaroo Island and the extreme south-east, and these are divided by gulfs, straits, and stretches of drier country. Further north, the semi-arid to arid zone is deeply cut into and split by Spencer Gulf and the central highlands. Because of this geographical background the distribution of South Australian fauna, notably of birds and reptiles, is very complex.

Highly developed agriculture in the limited favourable areas and the wide-spread pastoral occupation beyond have depleted the fauna, particularly the mammals. A series of national parks and reserves is being established which will preserve samples of the various habitat types and, it is hoped, their indigenous fauna. The National Parks and Wildlife Service controls over 8 million acres on the mainland (see Part 6.4), and administers the Flinders Chase Reserve (212 square miles) on Kangaroo Island which is free from the introduced fox.

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

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

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

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

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

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

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

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

Marine and freshwater fishes number about 390 species—not a very rich fauna for a State with a coastline of 2,500 miles. There is, however, an abundance of certain species of economic importance. A special article on the freshwater fish of South Australia was included on pages 27-34 of the *South Australian Year Book* 1971.

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

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

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

THE REPTILES OF SOUTH AUSTRALIA*

About 160 species of reptiles are known from South Australia. The exact number is not known at present because some groups have been insufficiently studied. Several species of lizards have yet to be scientifically named and described and possibly others remain to be discovered. The State's reptile fauna comprises a little more than one-third of the Australian total.

* Contributed by T. F. Houston, South Australian Museum.

Our knowledge of the forms of reptiles inhabiting the State and Australia generally is far behind our knowledge of birds and mammals. This is partly because of the cryptic, burrowing or nocturnal modes of life of so many of them which means that they are seen only seldomly. The same may be said of many mammals, however, and perhaps the main reason reptiles are not so well studied is the widespread attitude of repugnance held towards them. This attitude is largely based on ignorance and, as people become better educated about reptiles, they tend to lose their fear of them. The danger of Australia's venomous snakes is exaggerated and that actually posed to man by snakebite in South Australia is extremely minor compared with other hazards of modern day living. A more enlightened approach towards reptiles in this State is reflected in the recent declaration of all native reptiles (except venomous snakes) as protected animals under the National Parks and Wildlife Act, 1972.

Classification of Australian Reptiles

Order	Suborder	Family	Number of Species	
			Aust.	S.A.
Chelonia (turtles and tortoises)	Cryptodira (neck flexes vertically)	Dermochelyidae (leather-back turtle)	1	(1)
		Cheloniidae (marine turtles).....	4	(2)
		Carettochelyidae (pitted-shelled turtle)	1	0
	Pleurodira (neck flexes laterally)	Chelyidae (freshwater tortoises).....	12	4
Crocodylia (crocodiles, alligators, etc.)	Eusuchia	Crocodylidae (crocodiles)	2	0
Squamata (lizards and snakes)	Lacertilia (lizards) ..	Scincidae (skinks)	160±	55±
		Gekkonidae (geckos) ...	52	21
		Pygopodidae (legless lizards)	22	13±
		Agamidae (dragon lizards)	40±	26
		Varanidae (goannas) ...	19	6
	Ophidia (snakes) ..	Typhlopidae (worm snakes)	21	4
		Boidae (pythons)	8	3
		Colubridae (solid-toothed and rear-fanged snakes)	12	0
		Elapidae (front-fanged snakes)	65	25
		Hydrophiidae (sea snakes)	24	0

NOTE: The numbers of species in each family are compared for Australia (Aust.) and South Australia (S.A.) in the two right-hand columns. Numbers followed by ± are approximate.

The order Reptilia includes all forms of lizards, snakes, turtles, tortoises and crocodiles. The classification of the Australian forms and a comparison between the numbers of species of each family inhabiting South Australia with those inhabiting Australia is shown in the table on page 33. The State fauna is composed mainly of lizards (120 species) and snakes (32 species), the turtle group being poorly represented and crocodiles entirely absent. The general aridity of the State and the temperate climate prohibit a greater aquatic fauna.

Aridity, however, is no barrier to lizard and snake life and the desert areas of the State have as rich a reptile fauna as the wetter areas although it is largely of a different composition. Reptiles are able to survive under desert conditions because of their low water requirements. They excrete solid uric acid, a whitish material, and lose very little water through their impervious skins. Temperature extremes are avoided by retirement into burrows or other retreats and foraging may be limited to dusk, morning or the night.

Typically, reptiles are egg-layers although some lizards and snakes are live-bearers. While the eggs may be deposited in specially prepared nests and are sometimes guarded, the hatchlings are always left to fend for themselves. Feeding of the young by adults is unknown among reptiles. Eggs in some instances are hard-shelled and in others soft-shelled. In some live-bearing species the eggs are simply retained within the bodies of the females until they hatch but in others the developing embryos are nourished through placenta-like organs such as in mammals.

TURTLES AND TORTOISES (ORDER CHELONIA)

In local usage a 'turtle' is a marine chelonian with limbs modified into flippers and a 'tortoise' is a freshwater or terrestrial species with more ordinary limbs used for walking.

Three species of marine turtles have been recorded from South Australian waters but all occur as incidental visitors and none has been found nesting on our coast. These stragglers probably come from the warmer east coast *via* Bass Strait. The most frequent species is the Luth or Leatherback (*Dermochelys coriacea*), the largest of all turtles which reaches a weight of about half a ton. It is distinguished by its leathery carapace which lacks large shields and has seven strong longitudinal ridges. Second most frequent is the Loggerhead (*Caretta caretta*) so called because of its disproportionately large head. A rarer visitor is the Green Turtle (*Chelonia mydas*), the species exploited commercially in the manufacture of turtle soup.

The freshwater tortoises (family Chelyidae) have strongly clawed, webbed feet which enable them both to swim and to walk on dry land. Their necks flex laterally unlike the turtles whose necks flex vertically. Contrary to popular belief, all species are carnivorous and all feed underwater. They feed mainly on small slow-moving aquatic animals such as crustaceans, insect larvae, worms, tadpoles and occasionally small fish. Plant material makes up only a very minor part of their diet.

Four species occupy very limited distributions in South Australia. The Common Long-necked Tortoise (*Chelodina longicollis*) is the most widely distributed, occurring in ponds and streams from the Adelaide region to the South East and in the Murray River. The related but much larger Broad-shelled Tortoise (*C. expansa*) is known to occur in the Murray River near the Victorian border. Also limited to the Murray is the Murray Short-neck (*Emydura macquarii*). The fourth species is another *Emydura* inhabiting waterholes along the Cooper Creek near Innamincka.

Tortoises are overcome by wanderlust at certain times and may travel long distances overland from one pond or stream to another. Females also leave the water to deposit their parchment-shelled eggs. Special nests are excavated and often carefully concealed with leaf litter after closure. Some individuals leave the water to hibernate.

LIZARDS AND SNAKES (ORDER SQUAMATA)

The distinction between the two groups in this order is not just a matter of presence or absence of limbs for many lizards have no legs and some snakes have vestiges of hind limbs. The distinction is made on the basis of a number of anatomical features, particularly the structure of the skull. The bones of the skull in snakes tend to be loosely joined and some are quite movable whereas they are immovably fixed in the lizard skull. The two halves of the lower jaw in snakes are joined apically by an elastic ligament which allows them to move apart when large prey is being swallowed, while the lower jaw bones are firmly united and inseparable in lizards.

Lizards (suborder Lacertilia)

Australian lizards are readily separable into five families each of which is known by a common name: skinks, geckos, legless lizards, dragons and goannas. All five occur in South Australia, skinks being most numerous and goannas the most scarce.

Some of the common names used for lizards, such as Stone Adder, Puff Adder and Snake Lizard suggest venomous capabilities but there are no venomous lizards in Australia. Some large skinks and goannas have powerful jaws and sharp claws and teeth and may inflict painful injuries if handled unwisely. Left alone, though, none of them need be feared.

Pronounced habitat preferences are shown by a large proportion of the lizards. Preference may be shown for soil type, plant association or both. Many species inhabit only sandy terrain, others occur only on loamy or stony soils and some live only in outcrops of rock. The Porcupine Grass (*Triodia* spp.) which grows in dense spiny tussocks often up to 2 metres or more in diameter provides homes for several species of geckos, skinks and legless lizards. Its dense growth provides shade and humidity while its needle-like leaves deter large predators. Some dragon lizards are limited to *Triodia*-covered sandplains.

Loss or reduction of the limbs and progression in a serpentine manner are found in two families: legless lizards and skinks. In other groups limbs are always well-developed and five-clawed. Immobile eyelids are features of all geckos, legless lizards and some skinks. In these lizards the eyes are covered by fixed transparent discs which serve to protect them.

The ability to drop the tail and regenerate a new one is possessed by geckos, legless lizards and small to medium skinks. It is a survival device which helps many individuals to elude predators. Breakage of the tail occurs at predetermined planes of weakness through vertebrae. There may be many planes of weakness or just one as is the case in some geckos where breakage always occurs at the constricted base of the tail. Shedding of the tail may occur autonomously without it even being grasped. Once shed it writhes vigorously, distracting attention from the lizard which may then escape. Tails may be shed and regenerated time and time again.

Skinks (family Scincidae)

This is by far the largest family of Australian lizards and the most diverse. South Australia's fifty-five or so species range in length from 8 cm to about 50 cm; they fall into eleven genera.

Because of their extreme diversity of form, skinks are difficult to define but most may be recognised by their overlapping and often smooth or glossy scales, a pattern of enlarged, symmetrical shields on the head, a broad flat tongue and (sometimes) movable eyelids. Various degrees of limb reduction are found amongst the species. The number of digits on the limbs may be reduced or the limbs themselves may be diminutive or entirely absent. In the extreme condition some species are difficult to distinguish from legless lizards (family Pygopodidae).

In skinks which are able to blink it is often only the lower eyelids which move. Several groups have transparent discs or 'windows' in the lower eyelids so that their vision is not obscured when their eyes are closed. Fusion of the eyelids in several groups has resulted in the eyes being permanently covered by transparent discs. The unblinking stare of some of these little lizards has earned them the name of 'snake-eyed skinks'.

The largest members of the family in the State are the bluetongues (genus *Tiliqua*) of which there are three species. The Common Bluetongue (*T. scincoides*) is most widespread, occurring throughout southern districts; the Blotched Bluetongue (*T. nigrolutea*) is limited to the South East; and the Western Bluetongue (*T. occipitalis*) to the north and west. The Shingleback or Stumpytail Lizard (*T. rugosa*) is an aberrant member of the genus. These larger members of the family are omnivorous and eat a wide variety of plant and animal matter whereas most smaller skinks are principally insectivorous, feeding as well on spiders, mites and snails.

The genus *Egernia* includes species of markedly different form living in a wide variety of habitats. Some species approximate the size of the bluetongue skinks. One such species is the Spiny-tailed Skink (*E. stokesii*) which is outstanding in the numerous short spines on its back and particularly on its tail. These backwardly directed spines allow the lizards to anchor themselves in rock-crevices and resist the most strenuous efforts to drag them out. The species is an inhabitant of rock outcrops in the arid parts of the State. A close relative (*E. cunninghami*), distinguished by a relatively longer tail, inhabits rocky gorges in the Mount Lofty Ranges. White's Skink (*E. whitei*) is a common smooth-scaled form found in the wetter southern districts. Other species frequent tree trunks or sandy terrain.

The snake-eyed skinks (genera *Morethia*, *Menetia* and *Cryptoblepharus*) are all agile diurnal species of small size. Superficially they resemble the window-eyed skinks (*Leiopisma* spp.) which are limited to more southerly districts. At certain times individuals of these two groups develop bright orange, pink or reddish markings on the throat or sides of the body. The significance of these has not yet been demonstrated.

Striped skinks (*Ctenotus* spp.), sometimes called 'copper-tails', are common throughout the State. They are small to medium-sized lizards of slender proportions which can move with startling speed when pursued. Each species has a characteristic pattern of longitudinal stripes often interspersed with pale spots. The generic name, meaning 'comb-ear', refers to the serrated anterior margins of the ear openings. Fourteen species are recorded from the State. The superficially similar *Sphenomorphus* skinks may be distinguished by smooth ear openings. The Desert Banded Skink (*S. richardsoni*) is a boldly cross-banded, glossy-bodied species inhabiting sandy arid areas. It hides in rabbit burrows during the day and emerges at dusk to forage. The water skinks (*S. quoyii* and *S. tympanum*) are limited to the south-eastern portion of the State including the Murray Valley. They frequent watercourses and may plunge into the streams to escape danger.

Burrowing skinks of the genus *Lerista* are seldom seen as most of their lives are spent in soil, leaf mould, litter and under logs and stones. Progression is serpentine and the limbs are weak or reduced to varying degrees. Bougainville's Skink (*L. bougainvilli*) is a common five-fingered, five-toed species of southern districts. The Two-toed Skink (*L. bipes*) inhabits sandy regions in the arid north. It has no forelimbs and the diminutive hindlimbs have but two toes each. It is a rapid burrower and specimens are very difficult to hold in the hand.

The genus *Hemiergis* includes several slender, long-bodied and weak-limbed species of which two are common about Adelaide. The Four-toed Skink (*H. peronii*) lives mainly in sandy areas such as the coastal dunes while the Three-toed Skink (*H. decresiensis*) occurs on loamy or stony soils such as occur in the Mount Lofty Ranges. The lizards live under dense bushes, under stones or in leaf litter. While they are dull brown with darker longitudinal lines above, their bellies are usually bright yellow.

Many of the skinks including the bluetongues, Shingleback, egerias and several of the smaller kinds give birth to living young, the remainder lay eggs. Communal nesting has been reported for the little Grass Skink (*Leiopisma guichenoti*). Females deposit their eggs together in masses of up to 100 or so under logs or thick plant debris. Exactly how and why they do this has yet to be determined.

Geckos (family Gekkonidae)

Never attaining a very large size in Australia, geckos are characterised by a soft dull skin and large unblinking eyes. A unique feature of some of them is the expanded adhesive tips of the toes and fingers which enable them to climb smooth surfaces. They are nocturnal feeders and hide by day under bark, stones, bushes or in other retreats. Activity may be limited to a short period after sunset when the substrate is still warm or may last longer on warm nights.

Some geckos have voices and may squeak when handled roughly or when they are startled. They use their voices at other times, too, and it is possible that the vocalisations have some territorial significance or function in attracting the two sexes together. The common tree gecko or Dtella (*Gehyra variegata*) has been heard to utter intermittent frog-like calls (a rapid chak-chak-chak etc.) from its daytime retreat. Some species combine vocalisations with threat postures and bluff displays when alarmed.

All geckos are egg-layers but never more than two eggs are laid by a female at one time. Eggs of one subfamily (Gekkoninae) are hard-shelled and those of the other (Diplodactylinae) are soft-shelled. The soft-shelled eggs absorb moisture as they develop and females seek out damp protected sites to deposit them.

The most common gecko around Adelaide is the Marbled Gecko (*Phyllodactylus marmoratus*) which in its natural habitat lives under loose bark on trees or under flat stones. In some suburbs it lives on wooden fences, in woodheaps or under rubbish. It is a slender species with a long tail and expanded tips on fingers and toes.

The quaint Thick-tailed or Barking Gecko (*Phyllurus milii*) is an inhabitant of rocky areas in both the wetter southern areas and the arid inland. One may be startled when first attempting to pick up one of these lizards to see it rise high on its legs and, with arched back and gaping mouth, utter a strange squeak or cry. Similar bluff displays are put on by the knob-tailed geckos (*Nephrurus* spp.) which owe their common name to the terminal knobs on their relatively short tails.

In arid areas there are two species which seem able to exist under the harshest drought conditions. One is the Dtella mentioned above, a mottled greyish species with strongly expanded digits. It lives under loose bark, in dead trees or under stones. The other is the Prickly or Bynoe's Gecko (*Heteronotia binoei*). The latter has slender toes and is strictly a ground-dweller which forages at night amongst leaf litter. Its brownish body has a sparse covering of enlarged tubercles dorsally—hence its name.

Altogether, nine genera of geckos are represented in South Australia and the largest of these is *Diplodactylus*. It is very difficult to generalise about the members of this group because of their diversity in form and behaviour. Some are ground-dwellers, others tree-dwellers. The pretty little Jewelled Gecko (*D. elderi*) lives exclusively in the spiny tussocks of porcupine grass.

Legless Lizards (family Pygopodidae)

This is a group of remarkably snake-like and worm-like lizards. Forelimbs are absent and the hindlimbs are rudimentary flap-like structures with no visible digits. The body and tail are long and cylindrical and covered with overlapping scales (in most species these are smooth to glossy). As in snakes, the eyes never blink as they are covered by fixed transparent discs. To distinguish between legless lizards and snakes, very close examination is necessary; the differences are outlined in the following table.

Legless Lizards	Snakes
Tail much longer than body	Body much longer than tail
Tail fragile	Tail never fragile
No greatly enlarged belly scales	Belly scales (often) greatly enlarged
Tongue broad and apically notched	Tongue slender and deeply forked
Ear openings sometimes present	Ear openings never present

Pygopodids are able to vocalise and often squeak when handled. They lay soft-shelled eggs, apparently no more than two at a time.

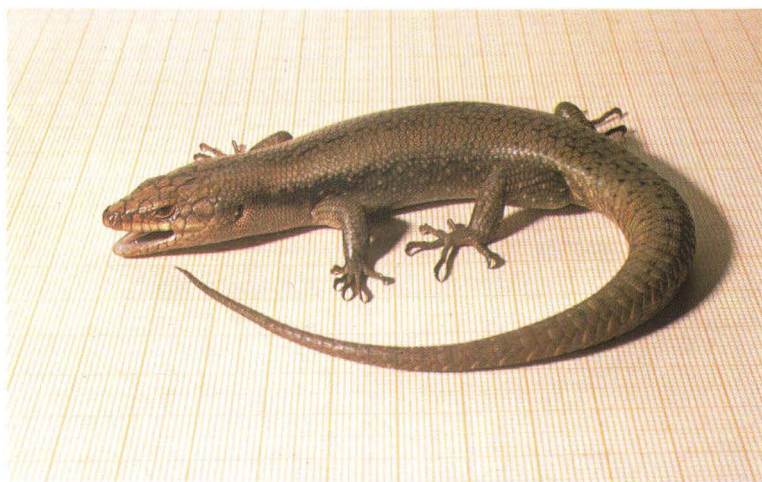
The family Pygopodidae is limited to Australia and New Guinea and has recently been studied in detail by Arnold Kluge. His studies have revealed a number of hitherto unrecognised species. The largest genus, *Delma*, is represented in South Australia by at least six species, most of which have previously been misidentified as Fraser's Legless Lizard (*D. fraseri*); two of them are regular inhabitants of porcupine grass tussocks. Two species of scalyfoots occur in the State; the Keeled Scalyfoot (*Pygopus lepidopodus*) is a greyish species with keeled dorsal scales from southern areas and the Black-headed Scalyfoot (*P. nigriceps*) is a reddish brown species with smoother scales from northern areas. The former is the largest member of the family and grows to a maximum length of about 76 cm.

Worm-lizards (*Aprasia* spp.) do not grow longer than 18 cm and are limited to the southern portion of the State. They are frequently found under stones. Their minute eyes, lack of ear openings and retracted lower jaws are adaptations to their burrowing mode of life. Three species occur in South Australia.



F. J. Mitchell

Common Longneck Tortoise (*Chelodina longicollis*) maximum shell length 25 cm. Occurs in the River Murray and in ponds and streams of the South East of South Australia.



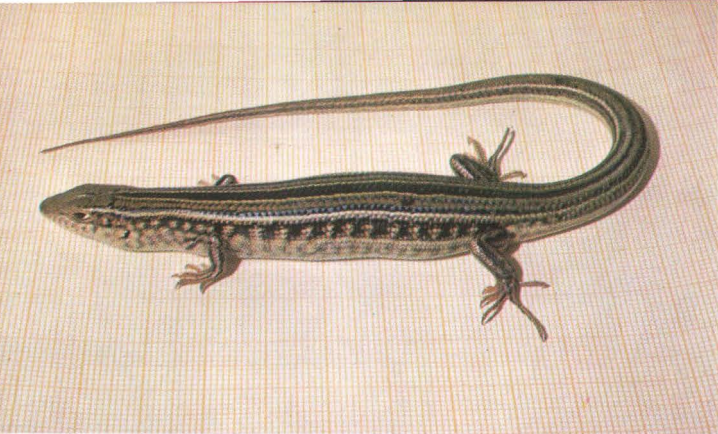
H. F. W. Ehmann

Tree Skink (*Egernia striolata*) average maximum length 23 cm. Frequents tree trunks or rock outcrops in southern South Australia.

Desert Banded Skink (*Sphenomorphus richardsoni*) 28 cm. A semi-nocturnal species from arid areas.

T. F. Houston





H. F. W. Ehmann

Robust Striped Skink (*Ctenotus robustus*) 24 cm. Common in the Mount Lofty Ranges and the South East.



H. F. W. Ehmann

Four-toed Skink (*Hemiergis peronii*) 16 cm. Lives amongst herbage in sandy areas of southern districts.

A burrowing skink (*Lerista picturata*) 16 cm. Forelimbs are virtually absent in this species from central and western coastal districts.

T. F. Houston





T. F. Houston

A knob-tailed gecko (*Nephurus vertebralis*) 13 cm. A rare species from the arid north of the State.



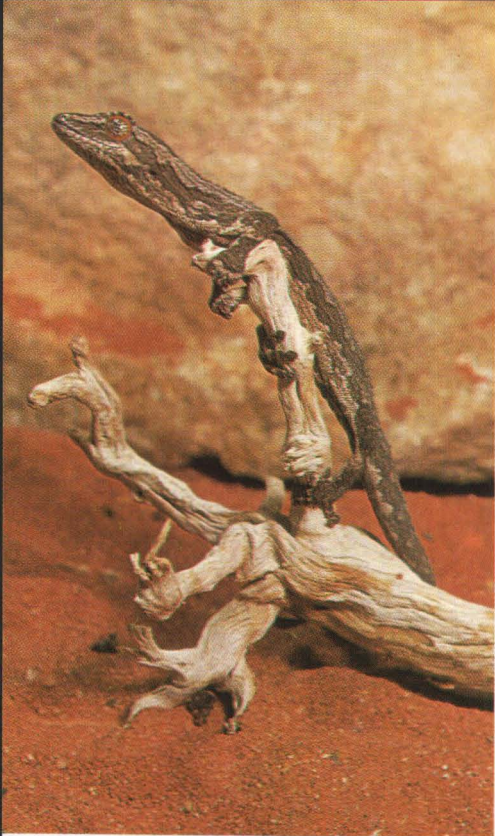
T. F. Houston

Jewelled Gecko (*Diplodactylus elderi*) 11 cm. An inhabitant of the porcupine grass tussocks in the interior of South Australia.

Beaded Gecko (*Diplodactylus damaeus*) 13 cm. Fairly common in arid sandy regions.

T. F. Houston





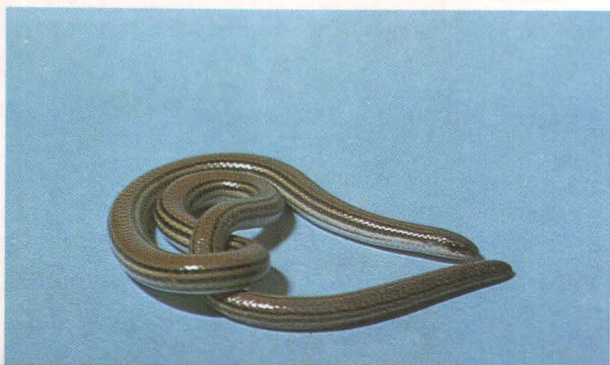
R. O. Ruchle
A tree-dwelling gecko (*Diplodactylus ciliaris intermedius*) 13 cm. An arid land species living under bark.

T. F. Houston
Black-headed Scalyfoot (*Pygopus nigriceps*)
40 cm. Found in the interior of South
Australia.



Lined Worm Lizard (*Aprasia striolata*) 15 cm. A common species under stones in some southern districts.

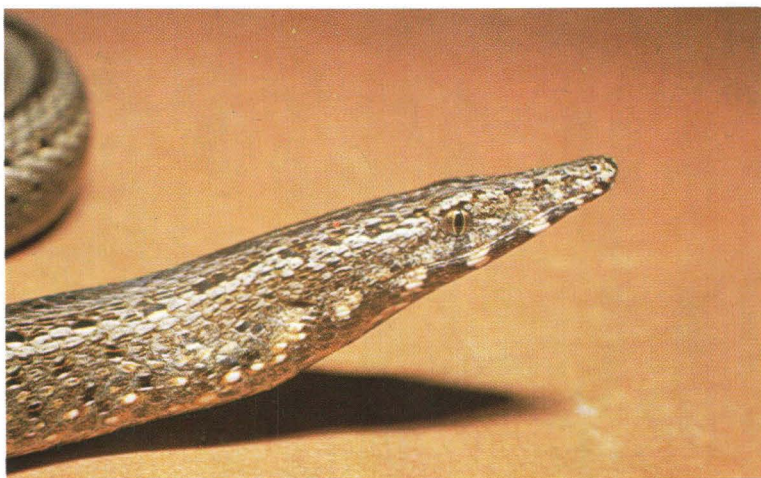
T. F. Houston





T. F. Houston

A delma (*Delma* sp.) 35 cm. Note the ear opening which distinguishes it from a snake.



T. F. Houston

Burton's Legless Lizard (*Lialis burtonis*) 60 cm. It feeds on skinks and geckos and occurs widely in South Australia.

Bearded Dragon (*Amphibolurus barbatus*) 50 cm. A common species noted for its bluff displays.

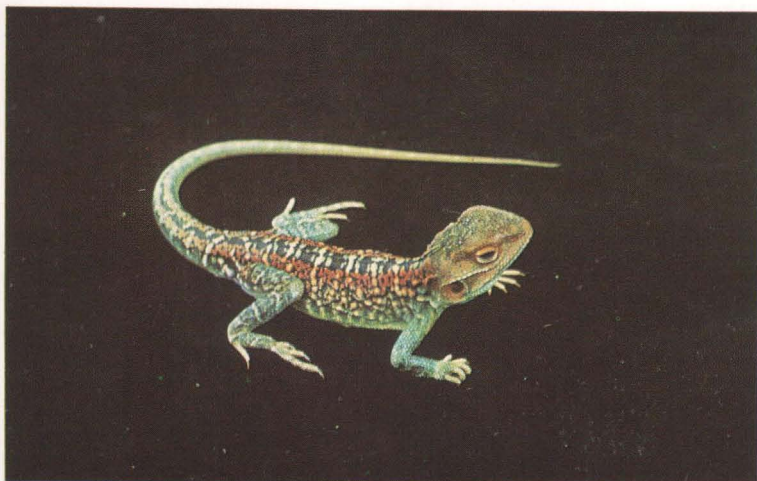
H. F. W. Ehmann





F. J. Mitchell

Arcoona Rock Dragon (*Amphibolurus fionni* subsp.) 26 cm. Inhabits rock outcrops between Port Augusta and Woomera.



H. F. W. Ehmann

Painted Dragon (*Amphibolurus pictus*) 22 cm. A widely distributed species preferring sandy soils.

An unnamed dragon lizard (*Amphibolurus* sp.) 28 cm. A rare species found in the mallee country.

T. F. Houston





H. F. W. Ehmann

Thorny Devil (*Moloch horridus*) 22 cm. A docile ant-eating dragon lizard inhabiting sandy western areas of South Australia.

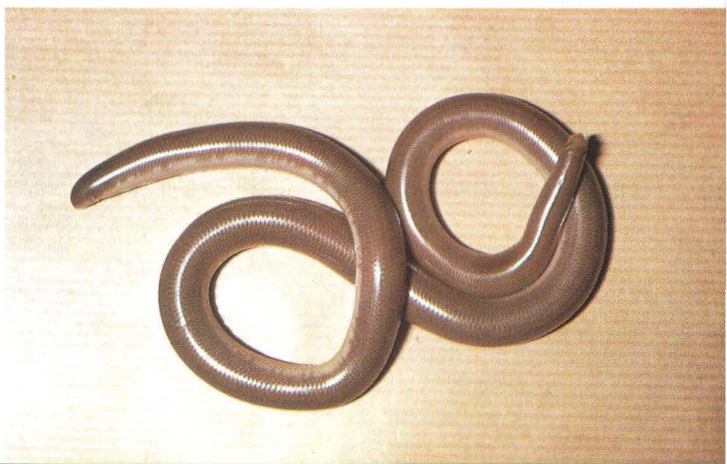


F. J. Mitchell

Gould's Sand Goanna (*Varanus gouldii*) 150 cm. This is the most widespread species in the State.

A worm snake (*Ramphotyphlops bituberculatus*) 45 cm. Completely harmless and seldom seen.

T. F. Houston





H. F. W. Ehmann

Yellow-faced Whip Snake (*Demansia psammophis*) 100 cm. A shy species most common in northern areas.



F. J. Mitchell

Desert Banded Snake (*Vermicella bertholdi*) 40 cm. Venomous but not dangerous; inhabits western districts.

Bandy Bandy (*Vermicella annulata*) 50 cm. A harmless species of arid and semi-arid regions shown here in its defensive posture.

T. F. Houston



Whereas the preceding forms are mainly insectivorous, Burton's Legless Lizard (*Lialis burtonis*) is a lizard-eater, devouring small skinks and geckos. This sharp-nouted species occurs throughout Australia and is not uncommon in some desert areas.

Dragon Lizards (family Agamidae)

The agamids derive their common name from a supposed resemblance between some of them and the mythical monsters. None of them, however, attains a very large size. They all have well-developed movable eyelids, distinct mobile heads, well-developed 5-clawed limbs and slender nonfragile tails. The skin is dull and often rough or spinose. The tongue is broad and flat.

Most dragon lizards are insectivorous although the large Bearded Dragon (*Amphibolurus barbatus*) is omnivorous. Feeding and other activities are pursued during the day at the surface but most retreat to burrows at night or when fleeing danger. All species lay parchment-shelled eggs which are usually deposited in earthen burrows.

Habitat specificity is markedly evident in the family. Species of the large genus *Amphibolurus* (seventeen occur in the State) show a wide range of preferences. The Tawny Dragon (*A. decresii*) and its relatives are strictly limited to boulder or rock-strewn areas. The Painted Dragon (*A. pictus*) occurs widely on sandy soils while the White Earless Dragon (*A. maculosus*) is restricted to the saltcrust along the margins of the large saltlakes in the north of the State. There it feeds on ants and windblown insects. It is remarkable that a lizard should have become adapted and restricted to such a barren and inhospitable environment. The life of the little white dragons was made the subject of an extensive field study by the late F. J. Mitchell, previous curator of reptiles at the South Australian Museum.

Earless dragons (genus *Tympanocryptis*) occur on stony soils or rock outcrops. The auditory tympani of these lizards are covered over with scales. The three South Australian species are all under 16 cm in length.

The classification of Australian agamids is rather unsatisfactory at present and members of the genus *Diporiphora* and some members of *Physignathus* (water dragons) may be better placed in *Amphibolurus*. *Diporiphora winneckeii* is a very slender dragon lizard living in canegrass tussocks on sandridges in the far north of the State. *Physignathus longirostris* is an even more attenuated species. It lives along watercourses in the northern regions and is an adroit tree climber, leaping from one branch to another in search of insect prey.

The Thorny Devil (*Moloch horridus*), acclaimed around the world as one of the most bizarre lizards, is an aberrant member of the family. It is an ant-feeder and picks up the insects as they move along their trails; it does not pursue them. As fearsome as the little dragons may look, they may be handled quite safely. In South Australia they are limited to the sandy western regions, *Triodia*-covered sandplain being their preferred habitat.

Goannas or Monitors (family Varanidae)

Among the members of this distinctive family are the world's largest living lizards. Australia's largest species, the Perenty (*Varanus giganteus*), is second in size only to the Komodo Dragon (*V. komodoensis*) and attains a length of up to 2.4 metres. By contrast the smallest goanna is the Short-tailed Pigmy Monitor (*V. brevicauda*) which does not exceed 20 cm.

Goannas have a distinctive appearance mainly because of elongation of the head and neck. The tails are slender, powerful and nonfragile. The strong limbs are five-clawed, the skin is dull with granular scales and the eyes have

movable eyelids. The goanna tongue is unique among Australian lizards in being slender and deeply forked like that of a snake. Reproduction is by means of parchment-shelled eggs.

Just one varanid genus (*Varanus*) occurs in Australia. All species are predators and scavengers, eating insects, spiders, scorpions, centipedes, small lizards and snakes, birds, mammals and carrion.

Of the six species occurring in the State only one, the Sand Goanna (*V. gouldii*), is common. It occurs mainly in sandy areas where it frequently burrows in search of food. A dark race (*V. gouldii rosenbergi*) occurs on Kangaroo Island and in the South East. The Perenty is limited to the rocky hills of the Far North and the Lace Monitor (*V. varius*) to the Murray Valley, parts of the Mount Lofty-Flinders Ranges and the South East. The latter often seeks refuge in trees when alarmed. Two pigmy monitors occur in the north of the State: Gillen's Pigmy Monitor (*V. gilleni*) is a tree-dweller of the myall-mulga (*Acacia* spp.) country while the Desert Pigmy Monitor (*V. eremius*) is a ground-dweller of the *Triodia*-sandplain country. The small Freckled Monitor (*V. tristis orientalis*) is recorded from the far north-east of South Australia. A large part of the diet of the tree-dwellers consists of geckos, especially the *Dtella*.

Snakes (suborder Ophidia)

The thirty-two species of snakes inhabiting the State fall into three distinct families: worm snakes, pythons and front-fanged snakes. Only the last of these are venomous and out of the twenty-five venomous species only about eight are considered dangerous. Occasional reports of seasnakes in South Australian waters are probably all based on sightings of eels. The Short-headed Worm-eel (*Muraenichthys breviceps*) has definitely been the basis of several reports. Seasnakes are tropical water reptiles and little chance exists of specimens reaching southern coasts.

Worm Snakes (family Typhlopidae)

Members of this family are entirely harmless, nonvenomous species which seldom grow to more than 60 cm in length; the largest species may grow to only 76 cm. As their name implies, they are worm-like in appearance and they burrow beneath logs, stones and termite nests in search of insects and worms. Their mouths, which are small and retracted under the snout, are provided with few very small teeth and no fangs. The eyes are reduced and covered by translucent scales; for this reason typhlopids are also known as blind snakes. The animals are nocturnal and may occasionally be found wandering over the ground in the earlier parts of the night.

All Australian typhlopids belong to the genus *Ramphotyphlops*, members of which may be found throughout the continent.

Pythons (family Boidae)

Pythons are constrictors; lacking fangs and venom glands, they subdue their prey by crushing and asphyxiating it with coils of the body. Pythons are therefore not dangerous to man but, because their mouths are provided with numerous sharp recurved teeth, large specimens are capable of inflicting painful and damaging bites if aggravated.

The three South Australian representatives are the Carpet Snake (*Morelia spilotes variegata*), the Woma (*Aspidites ramsayi*) and Children's Python (*Liasis childreni*). All are now rare in the State although the Carpet Snake was once more common in southern districts. The Carpet Snake is known to occur now only along the Murray Valley and in a few wetter parts of the Flinders Ranges.

It attains a maximum length of about 2.7 metres and its food consists of small birds and mammals and occasional lizards. The Woma is a dull brownish species of the sandy deserts of the interior and grows to a length of about 2.4 metres. Children's Python is a small species not usually exceeding 1.2 metres which inhabits rocky areas in the north of the State.

Front-fanged Snakes (family Elapidae)

All members of this family are provided with venom glands and fangs. Two other families in Australia also contain venomous species; these are the Colubridae (rear-fanged snakes and others) and the Hydrophiidae (seasnakes) but both are absent from South Australia.

As mentioned earlier, only about eight elapids in the State are considered dangerous. These are the following: Death Adder (*Acanthophis antarcticus*), Common Brown Snake (*Demansia textilis*), Collared Brown Snake (*D. nuchalis*), Mulga or King Brown Snake (*Pseudechis australis*), Red-bellied Black Snake (*P. porphyriacus*), Inland Taipan (*Oxyuranus microlepidotus*), Banded Tiger Snake (*Notechis scutatus*) and Black Tiger Snake (*N. ater*). All are potentially fatal to varying degrees but fortunately some occur only in remote areas or are so shy that the chances of a bite occurring are very low.

The greatest danger is posed by the Common Brown Snake which lives in suburban fringe areas of Adelaide and throughout rural areas, the Death Adder which inhabits sand dunes along the coastlines of Yorke and Eyre Peninsulas and the Banded Tiger Snake which is common along the Murray River Valley and in the South East. The Inland Taipan in South Australia is encountered only along the major watercourses of the Far North East following rat plagues. This species, however, is reported to have a rather fierce disposition. In the eastern States the Copperhead (*Denisonia superba*) is regarded as a dangerous species, reaching a length of 1.7 metres. In South Australia it seldom exceeds 1 metre and, being of very shy disposition, is seldom encountered. Since antivenenes are available for most dangerous species, deaths from snakebite are now rare.

Most of the venomous snakes of the State are small innocuous ones. Two genera predominate; these are *Denisonia* (split into several genera by Worrell) and *Vermicella*. The former contains snakes of fairly usual form while the latter includes some sharp-snouted, short-tailed burrowing species. One member of the genus (*V. annulata*) is known as the Bandy Bandy because of its bold alternating black and white bands. The Desert Banded Snake (*V. bertholdi*) is banded in black and orange. The former of these two species feeds exclusively on worm snakes, the latter on small skinks.

Unwisely, many people feel it incumbent upon them to kill any snake they come across. They should bear in mind that they are greatly increasing their chances of being bitten if they do attack a snake, and they should consider whether the animal is really posing any danger to humans or their livestock. Snakes play an important role in the ecology of bushlands and in agricultural areas help to control vermin such as rats and mice.

FURTHER READING

Little popular literature is available relating specifically to South Australia's reptiles, most information being scattered through various scientific journals. Waite's (1929) handbook of the State's reptiles and amphibians has long been out of print and many species have been omitted from it. Worrell's (1964)

book is currently the best comprehensive work for the identification of species. Many general aspects of Australian lizards are covered by Bustard (1970) and many useful references given by him are not included here.

Many technical papers useful for identification of the State's reptiles have been published by F. J. Mitchell in *Records of the South Australian Museum* since 1948 and G. M. Storr in *Journal of the Royal Society of Western Australia* and the *Western Australian Naturalist* since 1963. Pianka has published several ecological studies in *Copeia* and the *Western Australian Naturalist* since 1968.

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PART 2

EXPLORATION AND COLONISATION

In the story of the discovery and exploration of South Australia there are many paradoxes which can mainly be explained in terms of the nature of the State. In 1833 Charles Sturt was able to write that 'a spot has been found on the South Coast of New Holland to which the colonist might venture with every prospect of success. All who have ever landed on the eastern shores of Gulf St Vincent agree as to the richness of its soil and the abundance of its pasture.' However, in 1792 the French admiral D'Entrecasteaux was so far from being in agreement with this as to describe the coast of South Australia as 'so uniform that the most fruitful imagination could find nothing to say of it'.

It is against a background of such contradictions that the picture of South Australian exploration unfolds: the Dutch reached South Australian waters in 1627, but it was not until after 1801 that British explorers discovered the valuable central southern coastline; Sydney was settled in 1788, but again it was much later, not until after 1836, that British settlers came to grips with the South Australian environment. The geographical characteristics of the country had a lot to do with this slow development and were also to hinder subsequent exploration.

EXPLORATION BEFORE COLONISATION

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

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

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

The British who followed were far more interested in the possibility of colonisation to help ease their population problem at home, and consequently, once the effects of early discouragement had worn off, they began to take an interest in South Australia as a possible site for a new colony. Lieutenant James Grant was the first British explorer to sail along the South Australian coast, sighting the extreme easterly shores of South Australia in about 1801. While in Cape Town he had been informed of the discovery of Bass Strait and was instructed to sail through it in the *Lady Nelson* on his way to Port Jackson. Sailing along the extreme south-east coast he named Cape Banks, Cape Northumberland, Mount Schank and Mount Gambier.

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

Baudin, in command of *Le Geographe* and accompanied by *Le Naturaliste*, left Le Havre in October 1800 with instructions to explore several specified regions including the then unknown portion of the southern coastline of Australia. After being delayed in the East Indies and Van Diemen's Land, Baudin sailed westward and charted the mainland coast from Western Port to Encounter Bay, where he met Flinders. The object of Baudin's expedition was to make scientific discoveries on behalf of Napoleon, but he had wasted considerable time *en route*. Thus most of the South Australian mainland coast was discovered before him by Grant and Flinders, and he was the original explorer of only a small section between Cape Banks and Encounter Bay. Some French names still remain, for example Lacepede Bay, Guichen Bay and Rivoli Bay. After the meeting at Encounter Bay, Baudin sailed further westward and along the northern shore of Kangaroo Island to Murat Bay, before being forced to abandon further exploration and to return to Port Jackson in June 1802. However, after re-equipping his expedition

and with the addition of another ship (*Casuarina*), for charting work in shallow waters, Baudin returned to the South Australian coast by way of King Island in Bass Strait. Leaving King Island on 27 December Baudin in *Le Geographe* and Freycinet in command of *Casuarina* headed direct for Kangaroo Island where they circumnavigated the whole island and charted its coast, being the first to chart its southern and western shores. This was to be the last major contribution made by an official French expedition to exploration of the South Australian coast.

Although these discoveries on the South Australian coast did not lead to any immediate colonisation, there began an increasing series of visits by sealing vessels to Kangaroo Island. A group of American sealers built a schooner on the island in 1804, while wild gangs of sealers and runaway convicts were forming settlements from 1806 onwards. In addition, French exploration in the area had led to a fear on the part of the British authorities that it might result in French colonisation, and, although not greatly valuing the area for itself, the British would have found it an embarrassment to have the French settled on the Australian continent. As a result, in 1804 the British sent Grimes, a government surveyor, to Kangaroo Island to report on it as a possible site for colonisation. The Grimes Report was most unfavourable, stating that the soil was poor and that the island lacked fresh water. On the other hand, in 1819 a Captain Sutherland visited the island and wrote an over-optimistic report on its future. It was this report which later led the South Australian Company into establishing their first station there in 1836.

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

The most significant explorations of the period immediately before colonisation were those of Captain Charles Sturt, who explored the Murray River from New South Wales down to its mouth; traversed Lake Alexandrina and located the Goolwa channel, reaching the western shore of the Murray mouth on 12 February 1830. Captain Sturt's journey has become something of an epic in Australian history; with a small party of soldiers and convicts he rowed 1,700 miles on the Rivers Murrumbidgee, Darling and Murray. They suffered from desperate weariness, endured a distressing lack of provisions, and were periodically attacked by bands of Aborigines. However, the main object of Sturt's journey was accomplished; the settling of the long insoluble 'problem of the rivers' of south-eastern Australia. But the real significance to South Australia was more than the mere settling of what was little more than an academic question, for his discoveries opened up 2,000 miles of navigable inland waterway and gave to Gulf St Vincent, which lay so near the mouth of the Murray, an importance and significance previously undreamt of. It was the age of canal building in Europe and of the development of the Mississippi in America, so that navigable water was considered of prime importance. The exuberance felt by everyone interested in South Australia at such a discovery is typified by the Wakefield theorists: 'The whole produce of eastern Australia will eventually be shipped from this place'. In fact the Murray became 'the grand attraction of the scheme'. However, Sturt's own fervour at this stage was somewhat cooler than

that of interested persons in England for there was one great disappointment which marred his discovery—the Murray lacked a sufficiently safe navigable mouth. Sturt found that the Murray flowed into a series of shallow lakes and a sand-blocked mouth. So little did Sturt's contemporaries understand the earth movements and land formation of the area, that their only conclusion was that there must somewhere be another channel emptying the waters of the Murray into the sea. So, the 'problem of the rivers' was replaced by the 'mystery of the Murray mouth'—and official action was to be taken promptly to solve this mystery.

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

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

Colonel William Light, who had been appointed Surveyor-General of the new colony, sailed from England in the *Rapid* on 4 May 1836 with instructions

to select a site for the capital of the colony. After a brief visit to Encounter Bay, during which he unhesitatingly rejected that area as being unsuitable, he landed at Nepean Bay on Kangaroo Island where some South Australian Company ships had already established a settlement. From here Light explored the east coast of Gulf St Vincent. Then, pressed for time by the unexpected arrival of the new settlers, he was able to make only a quick trip to Port Lincoln and a brief inspection of part of the west coast of Gulf St Vincent before, in concurrence with Sturt's earlier opinion, he decided that the most suitable site for Adelaide was on the banks of the small, but centrally situated, River Torrens.

COLONISATION

The colonisation of South Australia was in itself an experiment involving certain new principles and was to represent a turning point in British colonial policy.

The period was conducive to colonisation as in Britain there was widespread unemployment and poverty, the popular remedy for which was emigration. Nevertheless the somewhat revolutionary nature of the plans was to result in seven years of negotiation and considerable modification of early ideas before the colonisation of South Australia was finally approved.

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

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

The first attempt to form a colony was made by Robert Gouger who, having met Wakefield in Newgate Gaol in 1829, was so impressed with his ideas as to approach certain interested parties with a view to purchasing a tract of land in South Australia. He was unable, however, to gain sufficient support to interest the Colonial Office in his plans.

In 1830 the National Colonization Society was formed with Gouger as its secretary. The Society served to further disseminate Wakefield's principles, but was not directly associated with plans for a colony in South Australia.

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

From the same core of enthusiasts who had supported this and earlier ventures there emerged in 1834 the South Australian Association. This group was prepared to abandon hopes for a chartered colony, conceding the issue of self-government, provided that the enabling legislation accommodated Wakefield's other principles for land sales and migration. The passage of the legislation was by no means smooth; the scheme was new and involved untried principles, and knowledge of the territory was still extremely limited.

Doubts on the suitability of the site were to be largely dispelled by the writings and personal representations of Sturt and the confirmatory expedition by Barker, and finally in July 1834 legislation for a colony in South Australia was put before Parliament. This legislation represented a considerable compromise on earlier plans.

The South Australian Colonization Act (4 & 5 William IV. Cap. 95) was assented to on 15 August 1834; the persistent efforts of Gouger, Torrens, and many others for a settlement in South Australia had finally borne fruit, and at least some of the ideas of Wakefield were to be tried. The territory allotted under the Act embraced 309,850 square miles, with the western boundary the 132nd meridian of east longitude and the other boundaries virtually as they are today. The colony was to be opened to settlement by British subjects, but under no condition were convicts to be admitted, making South Australia the only State to be settled entirely by free persons. Authority was to be divided, with the Colonial Office through the Governor controlling all affairs of government except land sales and immigration, these fields being reserved to a Board of Commissioners. Provision was made for self-government upon the population reaching 50,000. All land alienated by the Crown was to be sold at a price of not less than '12 shillings' (\$1.20) per acre and the whole of the proceeds used in 'conducting the emigration of poor persons from Great Britain and Ireland'.

Although Parliament was prepared to authorise the experiment it was not prepared to finance it; the colony was to be self-supporting. The Commissioners were accordingly authorised to borrow \$400,000 against future general revenue to finance the founding of the colony and the establishment of government, and \$100,000 against the sale of land to start the migration programme. Finally, the Act contained two conditional clauses which were to harass the whole venture and served to delay colonisation another twelve months. The first of these conditions, which were to be satisfied before the Commissioners could exercise their general powers, required that government securities to the value of \$40,000 be lodged as a guarantee for the venture. Secondly land to the value of \$70,000 was to be sold before settlement.

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

In December 1835 with sufficient land sold and with the \$40,000 guarantee lodged with the Treasury, the Commissioners were free to begin the business of colonisation. The South Australian Company was formed in January 1836, and in February two ships of the Company sailed for Kangaroo Island to establish a settlement.

May 1836 saw the first official departure of the Surveyor-General, Colonel William Light, whose task included choosing a site for the first settlement. Details of Light's early movements are given on pages 46-7. The first Company vessels reached Kangaroo Island in July, and colonists arrived at Adelaide from early November. The first Governor of the colony, Captain John Hindmarsh RN, arrived at Holdfast Bay on 28 December 1836 and the new colony was officially proclaimed on the same day. By this time some 300 colonists were already in residence. Hindmarsh was to remain in the colony for eighteen months, a period marked by political feuding and very little progress.

The one outstanding feature of the first two years was the work of Light. Expected to carry out difficult tasks with an inadequate staff Light first had to contend with opposition to his choice of a site for Adelaide. His views prevailed and the city was surveyed to his plan and the land was allotted by March 1837. The survey of country land for the preliminary purchasers proceeded very slowly and it was not until May 1838 that the first ballot for country sections was held. At the same time the survey staff were becoming increasingly disgruntled with the unrealistic demands of the Commissioners and in June almost the entire staff resigned. Light died in October 1839.

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

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

Appalled at the stagnation of the colony, Gawler immediately undertook a liberal spending programme. Surveying was considerably increased with the result that half a million acres had been surveyed by mid-1841. At the same time an extensive public building and works programme provided relief for the unemployed. Generally Gawler created a renewed state of optimism which remained until 1840 when land values were depreciated and sales declined. Immigrants continued to arrive throughout this period.

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

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

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

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

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

EXPLORATION AFTER COLONISATION

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

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

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

trail. Charles Sturt was another to make an early stock drive to Adelaide, while Bonney in 1839 pioneered an alternative route which followed the south-east coast of the State and crossed the Murray above Lake Alexandrina.

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

Knowledge of the arid interior and of the far west coast was to be obtained from a number of major expeditions, the first such venture being led by Edward John Eyre. In 1839 Eyre journeyed north to Mount Arden, at the head of Spencer Gulf, where he established a base camp. From Mount Arden he made the first sighting of the dry bed of Lake Torrens. Crossing to Port Lincoln, Eyre proceeded up the west coast of the peninsula which was to bear his name, passed through Streaky Bay, and came to within 50 miles of the Western Australian border. The return journey to Mount Arden camp was made across the top of Eyre Peninsula.

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

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

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

Captain Charles Sturt, whose earlier journey down the Murray had helped precipitate the colonisation of South Australia was again to contribute to South Australian exploration. Considerable mystique had developed concerning Central Australia, including the rumoured presence of an inland sea, and in August 1844 Sturt set out from Adelaide in an effort to unveil this area. Hoping to avoid

the supposed horseshoe lake, Sturt followed the Murray and Darling Rivers to Menindee. After passing through Broken Hill and seeing Eyre's Mount Hopeless from the other side of the lakes, the party moved to Mount Poole some 200 miles north of Menindee. Here they rested for six months while waiting for rain to fall. In July 1845 Sturt set off in a north-westerly direction crossing Sturt's Stoney Desert and the north-east corner of the State. Although temporary relief was provided by Eyre Creek, whose course they followed for some considerable distance, the desert nature of the subsequent terrain forced the party to turn back when very close to their central goal, and only 500 miles from the Gulf of Carpentaria. A second assault on the desert also failed, although Sturt explored along Cooper Creek for almost 100 miles before returning to the base camp and thence to Adelaide in January 1846.

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

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

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

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

Stuart had an advantage over Sturt in that the intervening years had revealed the lakes to be passable and thus he was virtually able to begin his expedition at

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

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

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

Giles had set out from the Overland Telegraph in 1873 at a point north of Oodnadatta, but was forced to return after covering approximately half the distance to the western seaboard. He tried again in May 1875, this time going south from Beltana to Port Augusta and then to Ooldea on a route which forty years later was to be closely followed by the east-west railway. From Ooldea the party went north for over 100 miles before again striking out to the west. Giles reached Perth in November, and three months later left Geraldton to return to South Australia on a route similar to that taken by Forrest two years earlier, arriving at Peake telegraph station in August 1876.

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

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

PART 3

CONSTITUTION AND GOVERNMENT

3.1 SYSTEM OF GOVERNMENT

South Australia is one of the six Australian States (originally constituted by Acts of the Imperial Parliament) which at Federation in 1901 ceded many of their powers on matters of national importance (*e.g.* international affairs including 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 semi-government authorities such as the Municipal Tramways Trust, the Electricity Trust of South Australia, the South Australian Housing Trust and the South Australian Meat Corporation.

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

Electorates

For elections for the Commonwealth Upper House (Senate) each State is a single multi-member electorate. South Australia is divided into five multi-member electorates for elections for the State Upper House (Legislative Council) and into twelve and forty-seven single-member electorates respectively for the Lower House of the Commonwealth (House of Representatives) and the State (House of Assembly).

Although in both the Commonwealth and South Australia it is Parliament alone which has the power to make changes in the number, size, and distribution of electorates, it is customary to appoint electoral commissions to recommend in these matters.

The terms of the Commonwealth Constitution provide for changes in House of Representatives electorates in certain eventualities, but in the South Australian Parliament changes in electorates for either House can be effected only by amendment to the State Constitution.

Because of a prescribed relationship between population and the distribution of House of Representatives electorates, Commonwealth electoral commissions are usually appointed after each Census to consider the effect of changes in the distribution of population and, if necessary, to suggest alterations to the boundaries and distribution amongst the States of Lower House electorates. In South Australia the boundaries of electorates are defined in a schedule to the State Constitution; there is no prescribed relationship between population and electorates, and electoral commissions are appointed at irregular intervals.

Party System

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

Cabinet and Executive Government

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

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

The Cabinet

The Cabinet does not form part of the legal mechanism of government. Its meetings are private and deliberative, the actual Ministers of the day alone are present, no records of the meetings are made public and the decisions taken have

in themselves no legal effect. At present all Commonwealth Ministers are members of the Cabinet, but from 1956 to 1972 the senior Ministers constituted the Cabinet and the other Ministers only attended Cabinet meetings when required. In South Australia, also, all ten Ministers are members of Cabinet.

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

Executive Council

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

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

Appointment of Ministers

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

Committees

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

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

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

Administration

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

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

Judicature

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

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

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

3.2 COMMONWEALTH GOVERNMENT

Federation

The Commonwealth of Australia was proclaimed as from 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 inter-colonial conferences during 1897, 1898, and 1899, and was accepted at referenda during 1899 by South Australia, New South Wales, Victoria, Queensland, and Tasmania, and in 1900 by Western Australia.

Separation of Powers

The Commonwealth 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 Commonwealth and State Governments; in cases of conflicting legislation, that of the Commonwealth prevails to the extent of the inconsistency. All other fields of interest remain the exclusive province of the State Governments until amendment is made to the Commonwealth Constitution Act or until the State Parliaments cede particular powers to the Commonwealth Parliament, as was the case in 1921 when the States transferred to the Commonwealth full control over air navigation.

Financial Resources

Since Federation the distribution of financial resources between the Commonwealth and the States has been an almost constant problem. Under the original terms of the Constitution the Commonwealth, for ten years, returned to the States three-quarters of the net revenues from the duties of customs and excise; provision also existed for general and particular grants to the States. Significant changes have been made in the distribution of financial resources since 1910. These are reviewed in some detail in Part 12—Public Finance.

COMMONWEALTH LEGISLATURE

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

Franchise

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

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

Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer or, persons who are holders of temporary entry permits under the *Migration Act 1958-1966* or are prohibited immigrants under that Act are excluded from the franchise.

Membership

Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British Subject, eighteen years of age or over, who has resided in Australia for at least three years and who is, or is qualified to become, an elector of the Commonwealth. 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 30 April 1969 His Excellency the Rt Hon. Sir Paul Meernaa Caedwalla Hasluck, GCMG, was sworn in as the eighteenth Governor-General of the Commonwealth. His authority as the Queen's representative is derived from Letters Patent, Instructions under the Royal Sign Manual and Signet, and the relevant sections of the Commonwealth Constitution.

Executive Council

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

Ministry

Members of the forty-second Ministry (the second Whitlam Ministry) are listed below.

Whitlam Ministry from 19 December 1972

Prime Minister and Minister for Foreign Affairs

The Hon. E. G. Whitlam, QC, MP (N.S.W.)

Deputy Prime Minister, Minister for Defence, Minister for the Navy, Minister for the Army, Minister for Air and Minister for Supply

The Hon. L. H. Barnard, MP (Tas.)

Minister for Overseas Trade and Minister for Secondary Industry

The Hon. J. F. Cairns, MP (Vic.)

Minister for Social Security

The Hon. W. G. Hayden, MP (Qld)

Treasurer

The Hon. F. Crean, MP (Vic.)

Attorney-General and Minister for Customs and Excise

Senator the Hon. L. K. Murphy, QC (N.S.W.)

Special Minister of State, Vice-President of the Executive Council, Minister Assisting the Prime Minister and Minister Assisting the Minister for Foreign Affairs

Senator the Hon. D. R. Willesee (W.A.)

Minister for the Media

Senator the Hon. D. McClelland (N.S.W.)

Minister for Northern Development

The Hon. R. A. Patterson, MP (Qld)

Minister for Repatriation and Minister Assisting the Minister for Defence

Senator the Hon. R. Bishop (S.A.)

Minister for Services and Property and Leader of the Government in the House of Representatives

The Hon. F. M. Daly, MP (N.S.W.)

Minister for Labour

The Hon. C. R. Cameron, MP (S.A.)

Minister for Urban and Regional Development

The Hon. T. Uren, MP (N.S.W.)

Minister of Transport and Minister for Civil Aviation

The Hon. C. K. Jones, MP (N.S.W.)

Minister for Education

The Hon. K. E. Beazley, MP (W.A.)

Minister for Tourism and Recreation

The Hon. F. E. Stewart, MP (N.S.W.)

Minister for Works

Senator the Hon. J. L. Cavanagh (S.A.)

Minister for Primary Industry

Senator the Hon. K. S. Wriedt (Tas.)

Minister for Aboriginal Affairs

The Hon. G. M. Bryant, ED, MP (Vic.)

Minister for Minerals and Energy

The Hon. R. F. X. Connor, MP (N.S.W.)

Minister for Immigration

The Hon. A. J. Grassby, MP (N.S.W.)

Minister for Housing

The Hon. L. R. Johnson, MP (N.S.W.)

Minister for the Capital Territory and Minister for the Northern Territory

The Hon. K. E. Enderby, MP (A.C.T.)

Postmaster-General

The Hon. L. F. Bowen, MP (N.S.W.)

Minister for Health

The Hon. D. N. Everingham, MP (Qld)

Minister for the Environment and Conservation

The Hon. M. H. Cass, MP (Vic.)

Minister for Science and Minister for External Territories

The Hon. W. L. Morrison, MP (N.S.W.)

Salaries and Allowances

From 1 April 1973 the annual salary for each member has been \$14,500 with electorate allowance of \$4,100.

The following additional payments are also made:

Prime Minister—\$27,000 plus expense allowance of \$10,900;

Deputy Prime Minister—\$12,500 plus expense allowance of \$5,200;

Ministers—\$10,500 plus expense allowance of \$4,875;

Speaker (House of Representatives)—\$10,500 plus expense allowance of \$4,250;

- President (Senate)—\$10,500 plus expense allowance of \$4,250;
Chairman of Committees (House of Representatives)—\$4,000;
Chairman of Committees (Senate)—\$4,000;
Leader of the Opposition (House of Representatives)—\$10,500 plus expense allowance of \$4,875;
Deputy Leader of the Opposition (House of Representatives)—\$7,500 plus expense allowance of \$4,250;
Leader of the Country Party (House of Representatives)—\$5,000 plus expense allowance of \$1,500;
Leader of the Opposition (Senate)—\$7,500 plus expense allowance of \$4,250;
Deputy Leader of the Opposition (Senate)—\$3,200 plus expense allowance of \$900;
Leader of the Australian Democratic Labor Party (Senate)—\$2,000 plus expense allowance of \$750;
Government Whip (House of Representatives)—\$2,500;
Other Whips (House of Representatives)—\$2,000;
Whips (Senate)—\$2,000;
Assistant Whips (House of Representatives and Senate)—\$500.

Superannuation

The *Parliamentary Retiring Allowances Act* 1948-1968 provides for the payment of superannuation pensions to persons or widows of persons who have served as members of the Commonwealth Parliament.

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

Ministers and certain other office-holders are required to contribute also for a ministerial pension at the rate of 11.5 per cent of the basic ministerial salary (at present \$10,500 per annum). The ministerial pension is payable in addition to the parliamentary pension and is related by percentage to the basic ministerial salary at the time the member ceased to be an office-holder. The rate ranges from 21 per cent of the basic ministerial salary for eight years service to 50 per cent after fourteen or more years service. Where there is no entitlement to pension a refund of contributions is payable. Some office-holders contribute at a lower rate and are required to serve longer for pension.

A Prime Minister aged forty-five years or more ceases to contribute for a ministerial pension after holding office for two years. Past ministerial contributions are then refunded and a Prime Ministerial pension is payable on retirement from the Parliament in addition to the parliamentary pension. The present rate of pension ranges from \$4,000 per annum after two years but less than three years in office to \$6,000 per annum after six years or more.

A parliamentary pension is payable to the widow of a serving member or of a former member pensioner at the rate of five-sixths the member's age forty-five rate of pension applicable at the time the husband ceased to be a member. In

addition, a ministerial widow's pension is payable at the rate of five-sixths of the additional pension that was or would have been payable to her husband. The widow of a Prime Minister is entitled to a Prime Ministerial widow's pension, in addition to the parliamentary pension, at the rate of one-half the Prime Ministerial pension that was or would have been payable to her husband. A parliamentary pension is payable to the child of a member who has lost both parents.

THE SENATE

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

Representation

At present the Senate consists of sixty members—ten from each State. The original provision was that each State, voting as a single electorate, should elect six Senators but by the Representation Act of 1948, which was effective for the 1949 elections, the number was raised to ten. Except in extraordinary circumstances each Senator is elected for a term of six years, five from each State retiring every three years.

Parliament has the power to vary the number of Senators above a minimum of six for each State. Under the terms of the Constitution any variation in the number of Senators necessitates a change in the number of members of the House of Representatives.

At 1 January 1973 representation in the Senate was as follows:

State	To Retire 30 June 1974				To Retire 30 June 1977			
	LP	CP	ALP	Others	LP	CP	ALP	Others
New South Wales....	1	—	3	1 (a)	2	—	3	—
Victoria.....	2	1	1	1 (a)	2	—	2	1 (a)
Queensland.....	1	1	2	1 (a)	1	1	2	1 (a)
South Australia.....	3	—	2	—	2	—	3	—
Western Australia....	2	1	2	—	1	1	2	1 (b)
Tasmania.....	2	—	2	1 (b)	2	—	2	1 (b)

(a) Australian Democratic Labor Party.

(b) Independent.

LP Liberal Party of Australia (including Liberal and Country League of South Australia and Liberal Country Party of Victoria) CP Country Party ALP Australian Labor Party

The members representing South Australia in the Senate are:

To Retire 30 June 1974:

Bishop, the Hon. Reginald (ALP)
 Buttfield, Dame Nancy, DBE
 (LCL)
 Cavanagh, the Hon. James Luke
 (ALP)
 Laucke, Condor Louis (LCL)
 Young, Harold William (LCL)

To Retire 30 June 1977:

Cameron, Donald Newton (ALP)
 Davidson, Gordon Sinclair (LCL)
 Drury, Arnold Joseph (ALP)
 Jessop, Donald Scott (LCL)
 McLaren, Geoffrey Thomas (ALP)

Elections for the Senate: Voting, South Australia

Date of Election	Electors Enrolled	Votes Recorded		Informal Votes	
		Number	Percentage of Electors Enrolled	Number	Percentage of Votes Recorded
10 December 1949..	434,224	420,437	96.82	48,838	11.62
28 April 1951.....	440,454	427,593	97.08	24,792	5.80
9 May 1953.....	453,496	437,583	96.49	21,297	4.87
10 December 1955..	462,747	444,827	96.13	39,802	8.95
22 December 1958..	490,930	473,832	96.52	36,677	7.74
9 December 1961 ..	521,396	501,312	96.15	28,284	5.64
5 December 1964 ..	551,341	528,464	95.85	39,421	7.46
25 November 1967 .	594,480	568,823	95.68	32,864	5.78
21 November 1970 .	639,807	609,268	95.23	42,306	6.94

Voting System

Before the election in 1949 the system of preferential voting was used for Senate elections, but for the 1949 and subsequent elections a system of proportional representation has been used. This system was discussed in detail on pages 55-6 of the *South Australian Year Book* 1971.

THE HOUSE OF REPRESENTATIVES

Representation

The members of the House of Representatives (the Lower House) are elected in single-member electorates. The number of electorates into which a State is divided is determined by the proportion that the population of the State bears to the population of the Commonwealth as a whole. Section 24 of the Commonwealth 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 both the Northern Territory and the Australian Capital Territory.

Preferential voting is used for elections for the House of Representatives.

After the election of 2 December 1972 representation in this House was as follows:

Party	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
ALP....	28	14	8	7	4	5	—	1	67
CP	7	6	4	—	2	—	1	—	20
LP	10	14	6	5	3	—	—	—	38

ALP Australian Labor Party CP Country Party LP Liberal Party of Australia (including Liberal and Country League of South Australia and Liberal Country Party of Victoria)

House of Representatives, 1972 Elections
Voting and Party Representation in South Australian Electorates

Electorate	Electors on Roll	Electors Voting	Successful Candidates		
			Name	Party	First Preference Votes
Adelaide.....	55,666	53,227	Hurford, C. J.	ALP	28,816
Angas.....	49,960	48,603	Giles, G. O'H.	LCL	22,191
Barker.....	54,272	52,681	Forbes, Hon. A. J.	LCL	29,426
Bonython.....	66,948	63,338	Nicholls, M. H.	ALP	37,752
Boothby.....	57,648	55,076	McLeay, J. E.	LCL	28,323
Grey.....	51,588	49,192	Wallis, L. G.	ALP	25,941
Hawker.....	56,095	53,943	Jacobi, H. R.	ALP	29,778
Hindmarsh.....	57,598	55,322	Cameron, Hon. C. R.	ALP	33,551
Kingston.....	61,235	59,082	Gun, R. T.	ALP	30,169
Port Adelaide.....	55,360	53,156	Birrell, F. R.	ALP	35,576
Sturt.....	58,854	56,956	Wilson, I. B. C.	LCL	28,056
Wakefield.....	45,216	43,635	Kelly, Hon. C. R.	LCL	21,211

Elections for the House of Representatives: Voting, South Australia

Date of Election	Electors Enrolled	Votes Recorded		Informal Votes	
		Number	Percentage of Electors Enrolled	Number	Percentage of Votes Recorded
10 December 1949..	434,224	420,437	96.82	9,380	2.23
28 April 1951.....	440,454	(a)384,082	(a)97.09	7,910	2.06
29 May 1954.....	455,872	(a)357,854	(a)96.77	8,812	2.46
10 December 1955..	462,747	444,827	96.13	18,050	4.06
22 December 1958..	490,930	473,832	96.52	15,619	3.30
9 December 1961..	521,396	501,312	96.15	15,629	3.12
30 November 1963..	541,536	523,135	96.60	13,963	2.67
26 November 1966..	585,465	563,341	96.22	16,220	2.88
25 October 1969...	624,626	599,719	96.01	20,562	3.43
2 December 1972..	670,440	644,211	96.09	16,845	2.61

(a) Contested electorates only.

REFERENDA

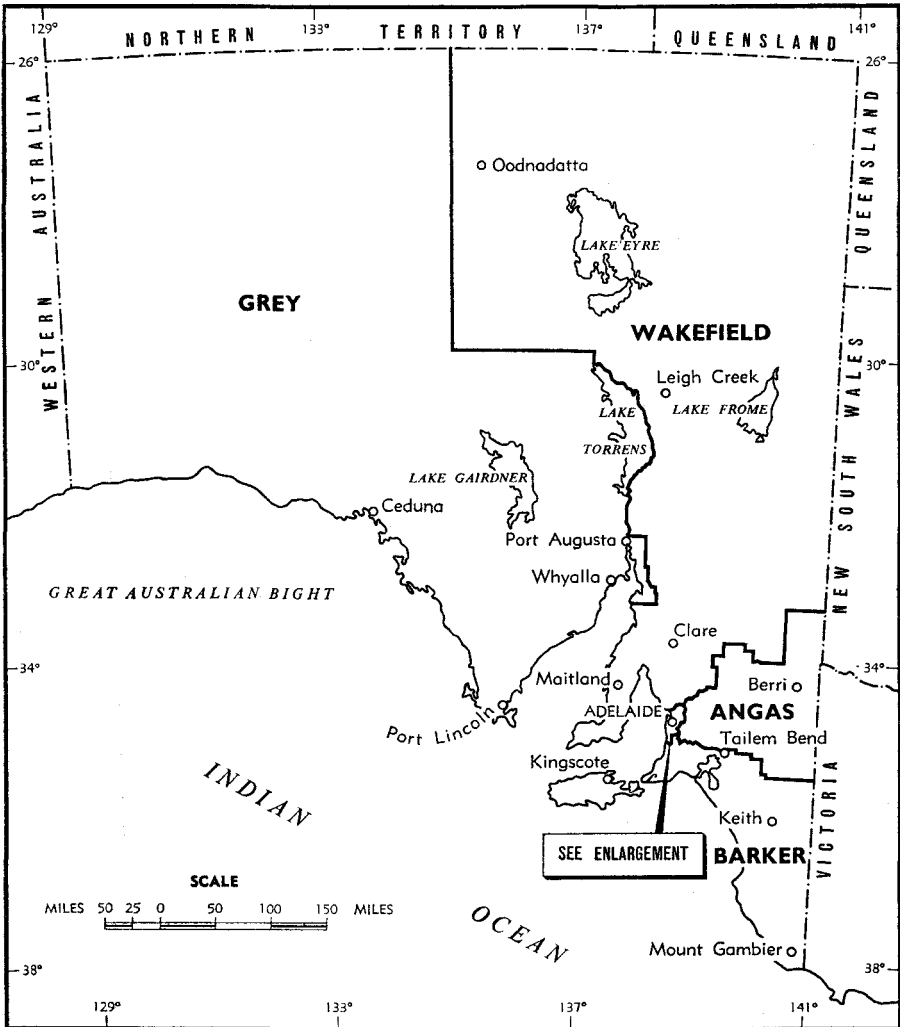
Alteration to the Commonwealth Constitution must be initiated in the Commonwealth Parliament and requires the approval of a majority of electors voting in a majority of the States as well as a majority of all the electors voting in the Commonwealth as a whole.

Of the twenty-six proposals so far submitted to the people of Australia only five have been approved (one in each of 1906, 1910, 1928, 1946 and 1967).

The most recent referendum (1967) proposed two alterations to the Constitution: the first, to sections 7 and 24-27, sought approval to alter the Constitution so that the number of members of the House of Representatives might be increased without necessarily increasing the number of Senators; the second,

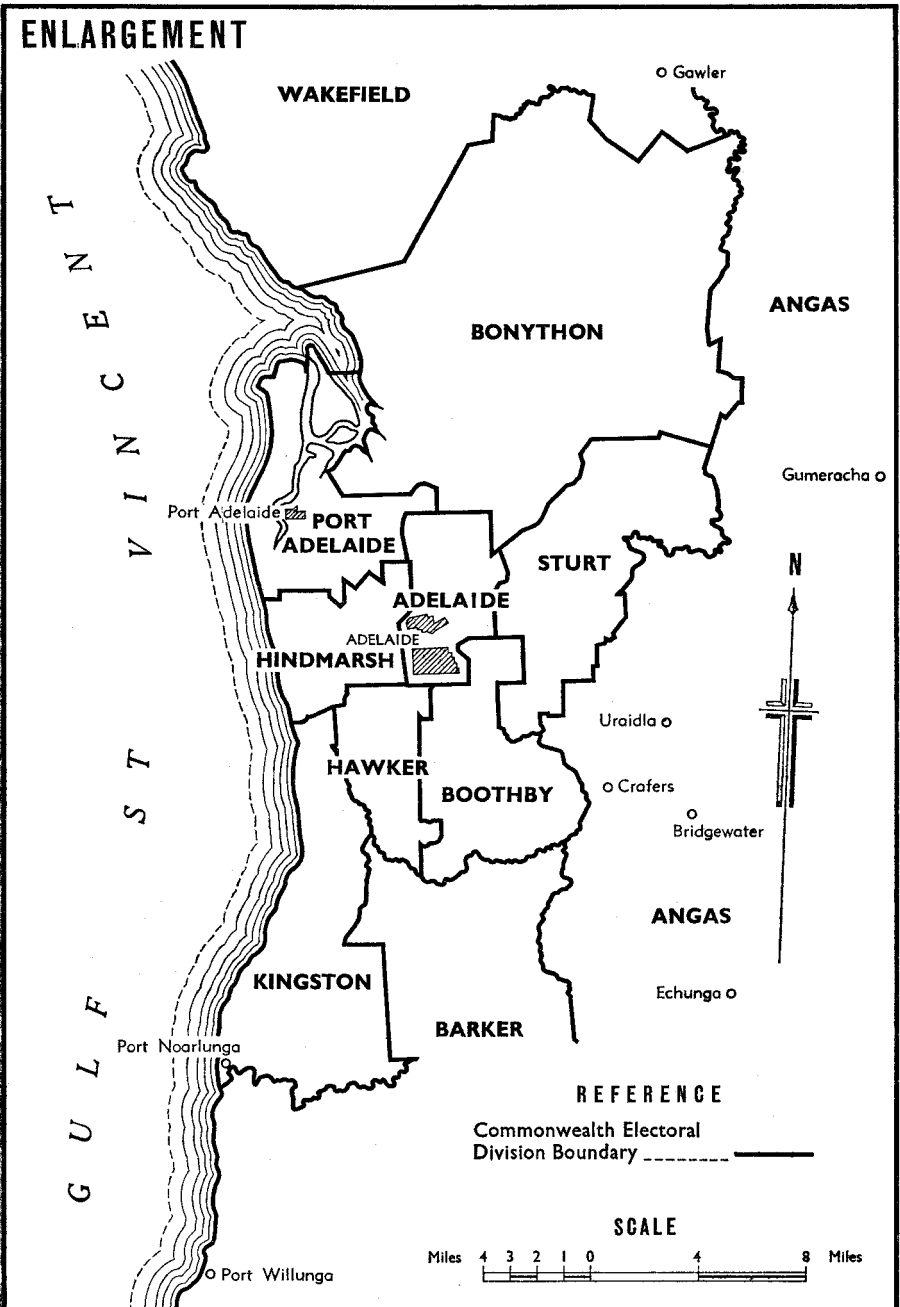
SOUTH AUSTRALIA
COMMONWEALTH ELECTORAL DIVISIONS

As proclaimed 21 November 1968



PORTION OF SOUTH AUSTRALIA COMMONWEALTH ELECTORAL DIVISIONS

As proclaimed 21 November 1968



to sections 51 and 127, sought approval to alter the Constitution so as to omit certain words relating to the people of the Aboriginal race in any State and so that Aborigines would be counted in reckoning the population.

All States and a majority of electors in the Commonwealth voted in favour of the proposal regarding Aborigines while all States (except New South Wales) and a majority of Commonwealth voters rejected the Parliamentary proposal.

3.3 GOVERNMENT OF SOUTH AUSTRALIA

As has been described in Part 2 the Foundation Act for South Australia provided for the powers of government to be shared by a Governor and a Board of Colonisation Commissioners. Many problems were created by this division of authority and during the early years the Colony experienced considerable administrative and financial difficulties.

Following agitation by the colonists over a number of years, for popularly elected representation, the Constitution Act, 1855-1856, which inaugurated the system of responsible government in South Australia, was passed and came into force on 24 October 1856.

A summary of early constitutional history and the introduction of responsible government was included on pages 60-2 of the *South Australian Year Book* 1971.

VICE-REGAL REPRESENTATION

Sir Mark Laurence Elwin Oliphant, KBE was sworn in as the Queen's representative in South Australia on 1 December 1971.

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 table on the next page, which lists occupants of the office since the foundation of South Australia.

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

Governors of South Australia

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

A Governor is normally appointed for a term of five years, but he can be re-appointed for one or more subsequent terms. At present he is granted a salary of \$15,000 per year, an expense allowance based on an amount of \$14,000 per year and altered in accordance with the Consumer Price Index number for Adelaide as the occasion arises. The amount appropriated from Consolidated Revenue for the Governor's salary and allowances for 1972-73 was \$39,000.

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

Name	Occupancy of Office		Occasions in Office	Total Period	
	First	Most Recent		Years	Days
George Milner Stephen	16/7/1838	17/10/1838	1	—	93
Boyle Travers Finnis	20/12/1854	8/6/1855	1	—	170
Lt-Col Francis G. Hamley	19/2/1868	16/2/1869	1	—	364
Maj. James Harwood Rocke	6/4/1870	5/5/1870	1	—	29
Hon. Sir Richard D. Hanson	7/12/1872	9/6/1873	1	—	184
Rt Hon. Sir Samuel J. Way, Bart, QC	29/1/1877	17/11/1915	65	6	117
William W. Cairns, CMG	24/3/1877	17/5/1877	1	—	54
Hon. James P. Boucaut, QC.....	26/10/1885	16/9/1897	9	—	263
Hon. William H. Bunday	30/7/1888	9/8/1888	1	—	10
Hon. Sir G. J. R. Murray, KCMG, QC	25/9/1916	9/2/1942	103	6	47
Hon. Thomas Slaney Poole	20/3/1925	22/11/1925	2	—	240
Hon. Sir H. Angas Parsons, QC.....	11/6/1935	19/2/1942	6	—	54
Hon. Sir J. Mellis Napier, KCMG	21/4/1942	6/4/1973	178	9	137
Hon. Sir Herbert Mayo	15/10/1946	9/1/1965	25	—	187
Hon. Sir G. S. Reed	24/7/1951	4/11/1957	5	—	31
Hon. J. J. Bray, QC	25/6/1968	7/7/1971	4	—	51
Hon. D. S. Hogarth, QC	8/7/1971	8/7/1971	1	—	1

CABINET AND EXECUTIVE GOVERNMENT

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

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

The maximum number of Ministers has been varied from time to time. In 1856 the number was 5; in 1873—6; 1901—4; 1908—6; 1953—8; 1965—9; 1970—10. 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 and in 1970 to seven.

The Constitution of 1856 provided for salary payments to Ministers only and salary payments to other members did not commence until 1887. The 1972-73 appropriation for salaries and allowances for ten Ministers is \$177,800 which includes salaries and allowances received by Ministers as members.

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

Premiers

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

Premiers of South Australia

Name	Dates of Office	Total Period in Office	
		Years	Days
Hon. Boyle T. Finnis	24/10/1856- 21/8/1857	—	301
Hon. John Baker	21/8/1857- 1/9/1857	—	11
Hon. Robert R. Torrens	1/9/1857- 30/9/1857	—	29
Hon. Richard D. Hanson	30/9/1857- 9/5/1860	2	222
Hon. Thomas Reynolds	9/5/1860- 8/10/1861	1	152
Hon. G. M. Waterhouse	8/10/1861- 4/7/1863	1	269
Hon. Francis S. Dutton	4/7/1863- 15/7/1863; 22/3/1865- 20/9/1865	—	193
Hon. Sir Henry Ayers, KCMG	15/7/1863- 4/8/1864; 20/9/1865-23/10/1865; 3/5/1867- 24/9/1868; 13/10/1868- 3/11/1868;		
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; 3/11/1868- 30/5/1870	3	11
Hon. John Colton	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; 5/6/1909- 3/6/1910; 17/2/1912- 3/4/1915; 14/7/1917- 8/4/1920	3	314
Hon. John Verran	3/6/1910- 17/2/1912	6	312
Hon. Crawford Vaughan	3/4/1915- 14/7/1917	1	259
Hon. Sir H. N. Barwell, KCMG	8/4/1920- 16/4/1924	2	102
Hon. John Gunn	16/4/1924- 28/8/1926	4	8
Hon. Lionel L. Hill	28/8/1926- 8/4/1927; 17/4/1930- 13/2/1933	2	134
Hon. R. L. Butler	8/4/1927- 17/4/1930; 18/4/1933- 5/11/1938	3	160
Hon. R. S. Richards	13/2/1933- 18/4/1933	8	210
Hon. Sir Thomas Playford, GCMG	5/11/1938- 10/3/1965	—	64
Hon. F. H. Walsh	10/3/1965- 1/6/1967	26	125
Hon. D. A. Dunstan, QC	1/6/1967- 17/4/1968; 2/6/1970-	2	83
Hon. R. S. Hall	17/4/1968- 2/6/1970	2	45

Ministry

The Ministry is the sixty-third to hold office. The members from 21 March 1973 are:

Premier, Treasurer, Minister of Development and Mines

Hon. Donald Allan Dunstan, QC, MP

Deputy Premier, Minister of Works and Minister of Marine

Hon. James Desmond Corcoran, MP

Chief Secretary, Minister of Lands, Minister of Repatriation and Minister of Irrigation

Hon. Alfred Francis Kneebone, MLC

Minister of Education and Minister of Fisheries

Hon. Hugh Richard Hudson, MP

Attorney-General and Minister of Community Welfare

Hon. Leonard James King, QC, MP

Minister of Transport and Minister of Local Government

Hon. Geoffrey Thomas Virgo, MP

Minister of Agriculture and Minister of Forests

Hon. Thomas Mannix Casey, MLC

Minister of Environment and Conservation and Minister Assisting the Premier

Hon. Glen Raymond Broomhill, MP

Minister of Labour and Industry

Hon. David Hugh McKee, MP

Minister of Health

Hon. Donald Hubert Louis Banfield, MLC

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).

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 and the first vacancy in each Legislative Council 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 second vacancy in each Legislative Council District is filled by re-arranging all the ballot papers according to the first preferences and allotting each ballot paper of the first elected candidate according to the second preferences. If a candidate then has an absolute majority he is elected, otherwise subsequent counts are made eliminating the candidates with the fewest votes until one remaining candidate has received an absolute majority.

Members, Qualifications, and Privileges

Certain requirements must be met before a person qualifies for membership of the South Australian Parliament. The following persons are not eligible for membership of either House: Judges, persons under the age of eighteen, aliens, members of the Commonwealth Parliament, persons who are not residents of South Australia, holders of contracts for the Public Service, occupants of offices of profit under the Crown, persons of unsound mind, persons attainted of treason, undischarged bankrupts and insolvent persons, and, amongst others, persons under sentence for any offence punishable by imprisonment for at least a year. Other requirements applicable only to one house or the other are mentioned on pages 74 and 77.

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

Details of the franchise for the separate Houses are shown on pages 74 and 77. 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.

Functions of Parliament

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

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

Constitutional Amendment

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

Deadlocks

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

Houses or alternatively for the election of two additional members for each Legislative Council district.

Life of Parliament

The term of office of each Parliament is generally three years from the day on which it first meets for the dispatch of business but it may be prorogued or dissolved by the Governor before the expiration of this period. By legislation introduced in 1933 the life of the twenty-eighth Parliament was extended to five years and in 1937 the Constitution Act was amended for each subsequent Parliament to have a life of five years. However the twenty-ninth Parliament repealed this provision and re-introduced three-year Parliaments.

Number of Members and Electorates

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

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

(a) Separate representation for Northern Territory.

(b) Cession of Northern Territory to Commonwealth control.

The present allocation of twenty-eight metropolitan and nineteen country electorates for the House of Assembly was introduced on 12 March 1970 with the proclamation of the Constitution Act Amendment Act, 1969. Before this date there were thirteen metropolitan and twenty-six country House of Assembly electoral districts. The first election incorporating the new boundaries was held on 30 May 1970.

Salaries and Allowances

The annual salary from 1 September 1971 is \$9,250 per member with allowances of between \$1,500 and \$3,200 depending on the area of the member's electorate and the distance from the City of Adelaide. The following additional payments are also made:

Premier and Treasurer—\$9,250, plus expense allowance of \$1,800.

Deputy Premier—\$5,850, plus expense allowance of \$1,450.

Chief Secretary—\$5,600, plus expense allowance of \$1,400.

Other Ministers—\$5,000, plus expense allowance of \$1,200.

President of Legislative Council and Speaker of House of Assembly—each \$3,000, plus expense allowance of \$450.

Chairman of Committees, House of Assembly—\$1,500, plus expense allowance of \$200.

Leader of the Opposition—\$3,750, plus expense allowance of \$900.

Deputy Leader of the Opposition—\$1,100.

Government Whip—\$1,000.

Opposition Whip—\$1,000.

Leader of the Opposition in the Legislative Council—\$1,500, plus expense allowance of \$400.

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

Superannuation

All members are required to contribute to a superannuation fund established under the Parliamentary Superannuation Act, 1948-1972 which provides for the payment of superannuation pensions to persons or widows or widowers of persons who have served as members of the State Parliament. No member can qualify for a pension until he is over fifty years of age and has served a minimum of eight years either in one term or as an aggregate of terms. The standard contribution to this fund is \$832.50 a year. According to the annual contribution and the length of service the pension payable varies between \$2,775 and \$6,271.50 a year.

At 30 June 1972 there were sixty-seven contributors to the fund; seventeen ex-members and twenty widows were in receipt of pensions.

LEGISLATIVE COUNCIL

Members and Electorates

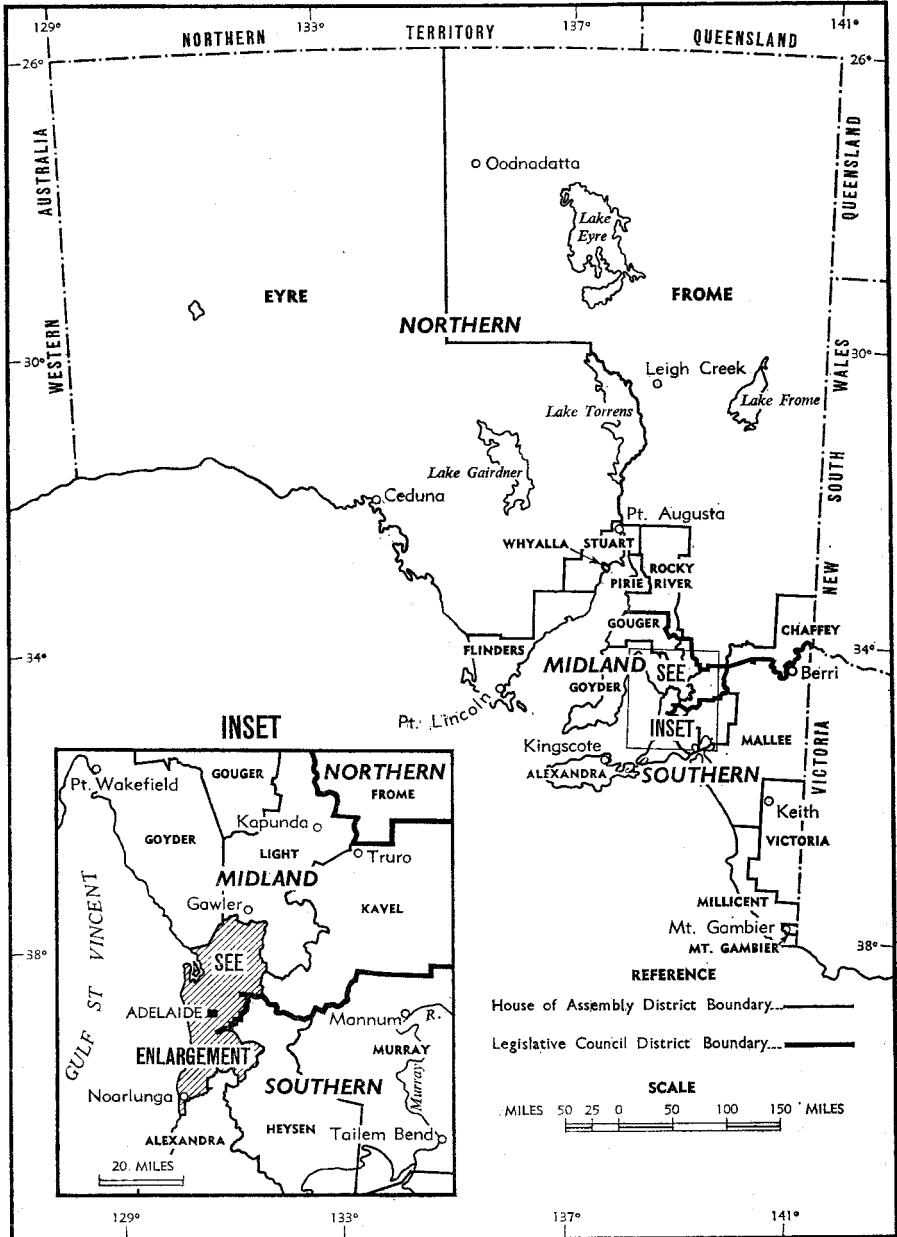
Each member of the Legislative Council, in addition to fulfilling the general requirements mentioned on page 72, must have attained the age of thirty years, be a British subject, and have resided in the State for at least three years. For the purpose of electing members to the Council the State is divided into five electorates each having four members. Each electorate normally elects two members every three years, and each member occupies his seat for a minimum of six years. A casual vacancy may occur when a member dies, or resigns, or ceases to satisfy any qualification for membership. Such a casual vacancy is filled, at a by-election in the particular electorate, for the unexpired portion of the previous member's term.

Franchise

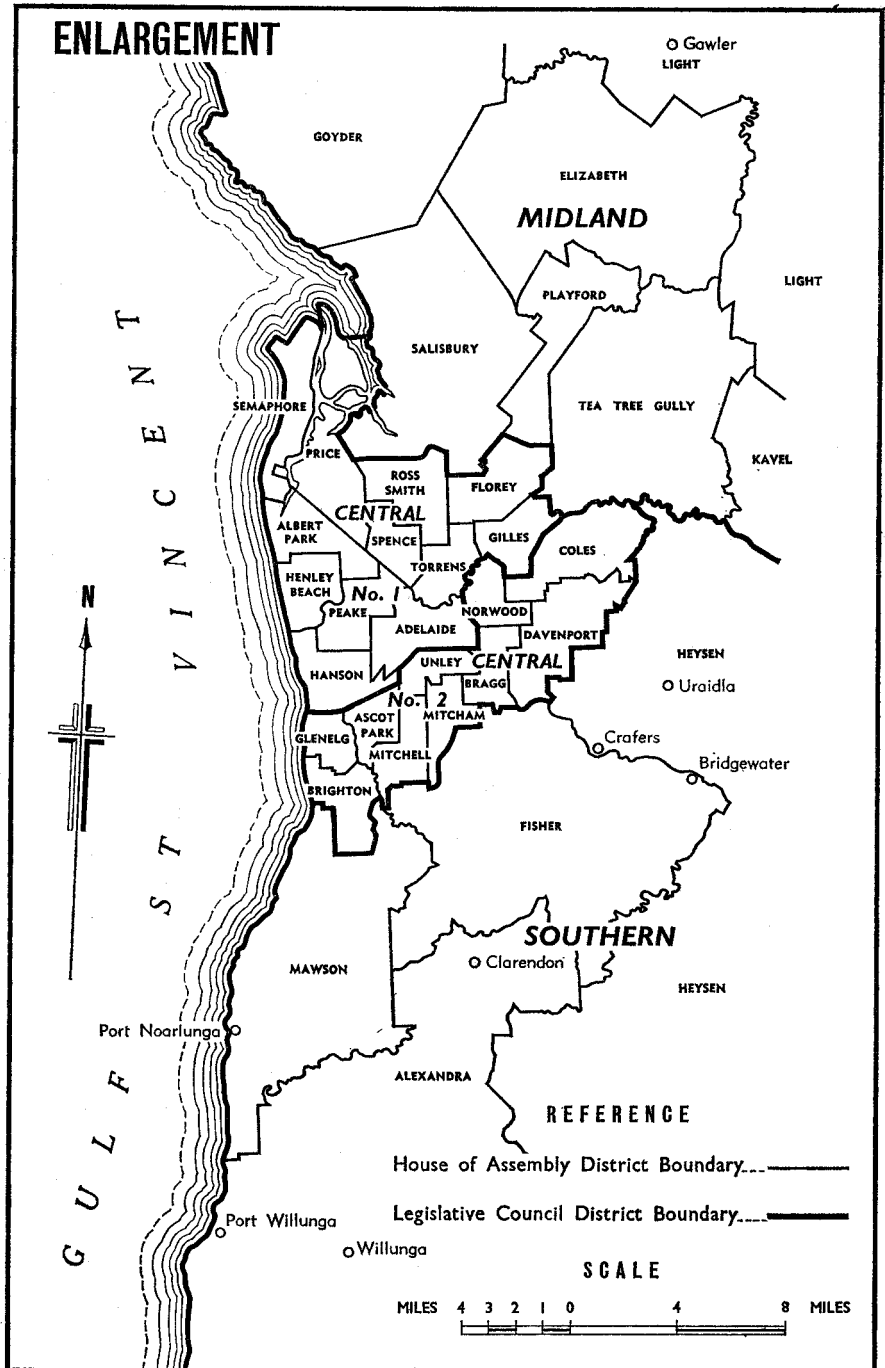
Voting for the Legislative Council is voluntary for those persons whose names are on the Legislative Council Electoral Roll. Enrolment is voluntary and an eligible voter in addition to being an adult British subject who has resided in the State for at least six months must possess at least one of the following qualifications. He may be:

- (i) the owner of a freehold estate of the value of \$100;
- (ii) the leaseholder in possession of a leasehold estate;
- (iii) the inhabitant occupier of a dwelling house;
- (iv) the husband or wife of a qualified elector; or
- (v) entitled to vote because of war or active service.

SOUTH AUSTRALIA
STATE ELECTORAL DISTRICTS
As proclaimed 12 March 1970



PORTION OF SOUTH AUSTRALIA
STATE ELECTORAL DISTRICTS
As proclaimed 12 March 1970



President and Chairman of Committees

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

HOUSE OF ASSEMBLY**Seat of Government**

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

Franchise

A British subject at least eighteen years of age who:

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

is entitled to vote at an election for a Member of the House of Assembly if, at the time of the election, he or she is enrolled on the Electoral Roll for a Subdivision of the Assembly District in which the election is held.

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 72 election to the House of Assembly is open to those eligible to vote in an election for the House. Members of this House are elected for a maximum of three years, for single-member districts. The seat of a member becomes vacant in cases similar to those stated for Legislative Councillors and may be filled at a by-election.

Officers and their Functions

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

ELECTIONS AND PARTY REPRESENTATION

The following table gives details of the numbers of electors on the Electoral Rolls and voting in contested electorates for all general elections from 1933 to 1973. It appears that compulsory voting for the House of Assembly, introduced by the 1942 amendment to the Electoral Act, also caused a considerable increase in voting for the Legislative Council.

South Australian Parliament, Voting at Elections, 1933 to 1973

Date	Legislative Council				House of Assembly			
	Electors on Roll	Contested Electorates			Electors on Roll	Contested Electorates		
		Electors Enrolled	Electors Voting	Per Cent		Electors Enrolled	Electors Voting	Per Cent
8 April 1933	133,152	39,415	25,309	64.21	338,576	307,285	182,693	59.45
19 March 1938	129,135	129,135	91,165	70.60	364,884	352,423	223,136	63.31
29 March 1941	133,358	115,952	70,660	60.94	378,265	339,263	171,978	50.69
29 April 1944 (a) ..	142,314	98,482	81,791	83.05	401,747	289,032	255,883	88.53
8 March 1947.....	155,847	155,847	124,826	80.10	418,308	306,059	285,765	93.37
4 March 1950	161,917	68,347	52,954	77.48	437,832	311,658	290,306	93.15
7 March 1953.....	168,758	97,968	79,373	81.02	449,630	354,273	336,592	95.01
3 March 1956.....	174,241	22,963	16,002	69.69	468,303	299,048	280,811	93.90
7 March 1959.....	187,248	86,278	70,007	81.14	497,456	426,340	400,531	93.95
3 March 1962.....	201,517	118,218	98,786	83.56	531,228	444,197	417,462	93.98
6 March 1965.....	213,377	186,899	149,910	80.21	562,824	542,436	513,064	94.59
2 March 1968.....	275,701	275,701	262,328	95.15	609,626	609,626	575,948	94.48
30 May 1970.....	261,565	—	—	—	635,533	635,533	603,952	95.03
10 March 1973	383,758	383,758	357,971	93.28	696,290	696,290	655,937	94.20

(a) First election under compulsory voting for the House of Assembly.

The following table shows the Party representation in both Houses of the South Australian Parliament resulting from each general election from 1933.

South Australian Parliament, Party Representation at Elections, 1933 to 1973

Date	Legislative Council				House of Assembly			
	ALP	LCL	Independent	Other	ALP	LCL	Independent	Other
8 April 1933	2	16	1	1(a)	6	29	4	{ 4(a) 3(b)
19 March 1938	2	15	1	2(c)	9	15	13	2(c)
29 March 1941	4	14	1	1(c)	11	21	5	2(c)
29 April 1944.....	5	15	—	—	16	20	3	—
8 March 1947.....	4	16	—	—	13	23	3	—
4 March 1950.....	4	16	—	—	12	23	4	—
7 March 1953.....	4	16	—	—	14	21	4	—
3 March 1956.....	4	16	—	—	15	21	3	—
7 March 1959.....	4	16	—	—	17	20	2	—
3 March 1962.....	4	16	—	—	19	18	2	—
6 March 1965.....	4	16	—	—	21	17	1	—
2 March 1968.....	4	16	—	—	19	19	1	—
30 May 1970.....	4	16	—	—	27	20	—	—
10 March 1973	6	13	—	1 (d)	26	18	—	3(e)

(a) Parliamentary Labor.

(b) Lang Labor.

(c) Independent Labor.

(d) Liberal Movement.

(e) 2 Liberal Movement, 1 Country Party.

ALP Australian Labor Party

LCL Liberal and Country League

At present there are forty-seven electorates represented in the House of Assembly, twenty-eight metropolitan and nineteen country. The table below shows the electoral returns for the general election held on 10 March 1973.

House of Assembly: Party Representation, 1973

Electorate	Electors on Roll	Electors Voting	Successful Candidate		
			Name	Party	First Preference Votes
Metropolitan:					
Adelaide	16,718	15,524	Wright, J. D.	ALP	9,792
Albert Park	16,667	15,822	Harrison, C. A.	ALP	10,716
Ascot Park	16,326	15,480	Virgo, Hon. G. T.	ALP	9,685
Bragg	15,911	14,880	Tonkin, D. O.	LCL	9,619
Brighton	18,059	17,133	Hudson, Hon. H. R.	ALP	10,099
Coles	18,908	18,046	King, Hon. L. J., QC	ALP	10,341
Davenport	17,734	16,677	Brown, D. C.	LCL	11,082
Elizabeth	17,348	15,866	Duncan, P.	ALP	9,904
Fisher	18,209	17,129	Evans, S. G.	LCL	9,876
Florey	19,774	18,704	Wells, C. J.	ALP	12,517
Gilles	17,318	16,415	Slater, J. W.	ALP	8,846
Glenelg	17,422	16,428	Mathwin, J.	LCL	8,465
Hanson	18,868	17,676	Becker, H. T.	LCL	9,022
Henley Beach	18,632	17,526	Broomhill, Hon. G. R.	ALP	9,661
Mawson	24,639	23,169	Hopgood, D. J.	ALP	13,812
Mitcham	16,662	15,670	Millhouse, R. R.	LM	9,528
Mitchell	16,968	16,039	Payne, R. G.	ALP	9,472
Norwood	16,907	15,711	Dunstan, Hon. D. A.	ALP	9,033
Peake	16,417	15,534	QC Simmons, D. W., DFC	ALP	8,855
Playford	20,213	18,925	McRae, T. M.	ALP	11,545
Price	16,343	15,408	Ryan, Hon. J. R.	ALP	9,396
Ross Smith	15,734	14,879	Jennings, J. J.	ALP	11,102
Salisbury	15,970	15,001	Groth, R. W.	ALP	10,943
Semaphore	17,375	16,478	Hurst, Hon. R. E. (a)	ALP	11,472
Spence	15,789	14,969	Crimes, E. H.	ALP	11,363
Tea Tree Gully	23,572	22,302	Byrne, Mrs M. V.	ALP	13,525
Torrens	16,555	15,369	Coumbe, J. W. H.	LCL	8,202
Unley	15,920	14,798	Langley, G. R. A.	ALP	8,357
Country:					
Alexandra	11,447	10,930	Chapman, W. E.	LCL	5,229
Chaffey	11,164	10,624	Arnold, P. B.	LCL	5,561
Eyre	9,441	8,377	Gunn, G. M.	LCL	5,848
Flinders	10,725	10,190	Blacker, P. D.	CP	5,221
Frome	8,286	7,747	Allen, E. C.	LCL	4,584
Gouger	9,993	9,526	Russack, E. K.	LCL	4,502
Goyder	9,940	9,562	Hall, R. S.	LM	4,678
Heysen	11,383	10,729	McAnaney, W. P.	LCL	7,327
Kavel	10,062	9,657	Goldsworthy, E. R.	LCL	5,267
Light	10,480	10,020	Eastick, B. C.	LCL	6,031
Mallee	10,187	9,744	Nankivell, W. F.	LCL	4,901
Millicent	10,681	10,279	Corcoran, Hon. J. D.	ALP	5,724
Mount Gambier	11,030	10,475	Burdon, A. R.	ALP	5,991
Murray	11,061	10,603	Wardle, I. A.	LCL	5,929
Pirie	10,208	9,736	McKee, Hon. D. H.	ALP	6,749
Rocky River	9,928	9,518	Venning, H. M.	LCL	4,454
Stuart	12,755	11,536	Keneally, G. F.	ALP	8,702
Victoria	10,133	9,598	Rodda, W. A.	LCL	5,768
Whyalla	10,428	9,528	Brown, M. J.	ALP	6,878

(a) Following the death of the Hon. R. E. Hurst, a by-election was held on 2 June 1973. The successful candidate was Mr. J. W. Olson. ALP Australian Labor Party CP Country Party LCL Liberal and Country League LM Liberal Movement.

Speaker: The Hon. J. R. Ryan, MP

Chairman of Committees: A. R. Burdon, MP

Leader of the Opposition: B. C. Eastick, MP

Deputy Leader of the Opposition: J. W. H. Coumbe, MP

Government Whip: G. R. A. Langley, MP

Opposition Whip: S. G. Evans, MP

Clerk of the House of Assembly: A. F. R. Dodd

The members of the Legislative Council and the districts they represent are:

To Retire in 1976

Kneebone, Hon. A. F.	(ALP)	Central No. 1
Shard, Hon. A. J.	(ALP)	Central No. 1
Hill, Hon. C. M.	(LCL)	Central No. 2
Rymill, Hon. Sir Arthur	(LCL)	Central No. 2
Cameron, Hon. M. B.	(LM)	Southern
Springett, Hon. V. G.	(LCL)	Southern
Dawkins, Hon. M. B.	(LCL)	Midland
Story, Hon. C. R.	(LCL)	Midland
Gilfillan, Hon. G. J.	(LCL)	Northern
McEwin, Hon. Sir A. Lyell	(LCL)	Northern

To Retire in 1979

Banfield, Hon. D. H. L.	(ALP)	Central No. 1
Casey, Hon. T. M.	(ALP)	Central No. 1
Cooper, Hon. Mrs J. M.	(LCL)	Central No. 2
Potter, Hon. F. J.	(LCL)	Central No. 2
DeGaris, Hon. R. C.	(LCL)	Southern
Vacant	—	Southern
Chatterton, Hon. B. A.	(ALP)	Midland
Creedon, Hon. C. W.	(ALP)	Midland
Geddes, Hon. R. A.	(LCL)	Northern
Whyte, Hon. A. M.	(LCL)	Northern

President and Chairman of Committees: Hon. Sir Lyell McEwin, MLC

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

Clerk of the Legislative Council: I. J. Ball

Court of Disputed Returns

In South Australia, provision is made in the Electoral Act, 1929-1972, for the constitution of a Court of Disputed Returns which has jurisdiction to hear and determine all questions of disputed returns affecting either House of the State Parliament which are referred to it by the House concerned. No return on an election writ may be disputed, except by a petition to this Court. A subsidiary function of the Court is to hear petitions for exoneration from liability for failure to file certain electoral returns or vouchers under Part XIV of the Electoral Act.

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

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

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

Most cases have related to House of Assembly elections. Since 1857, the Court of Disputed Returns has considered 21 petitions referred to it by the House of Assembly concerning the election of 26 members of that House. The Court's decisions in these cases are summarised hereunder:

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

REFERENDA

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

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

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

ADMINISTRATION

The South Australian Public Service consists of forty-eight departments, many of which are very small. In the following list, the departments have been grouped according to Ministerial control.

PREMIER, TREASURER, MINISTER OF DEVELOPMENT AND MINES

Hon. Donald Allan Dunstan, QC, MP

Department of the Premier and of Development	Agent-General in England Department
Treasury Department	Valuation Department
Superannuation Department	Mines Department
State Taxes Department	Department of the Public Service Board

DEPUTY PREMIER, MINISTER OF WORKS AND MINISTER OF MARINE

Hon. James Desmond Corcoran, MP

Minister of Works Department	Public Buildings Department
Engineering and Water Supply Department	State Supply Department
	Department of Marine and Harbors

CHIEF SECRETARY, MINISTER OF LANDS, MINISTER OF REPATRIATION AND MINISTER OF IRRIGATION

Hon. Alfred Francis Kneebone, MLC

Chief Secretary's Department	Department of the Public Actuary
Government Reporting Department	Prisons Department
Auditor-General's Department	Department of Lands
Government Printing Department	Botanic Garden Department
Police Department	

MINISTER OF EDUCATION AND MINISTER OF FISHERIES

Hon. Hugh Richard Hudson, MP

Minister of Education Department	Art Gallery Department
Education Department	Department of Fisheries
Libraries Department	

ATTORNEY-GENERAL AND MINISTER OF COMMUNITY WELFARE

Hon. Leonard James King, QC, MP

Attorney-General's Department	Local and District Criminal Courts Department
Crown Law Department	Registrar-General's Department
Public Trustee Department	Electoral Department
Department of Community Welfare	
Supreme Court Department	

MINISTER OF TRANSPORT AND MINISTER OF LOCAL GOVERNMENT

Hon. Geoffrey Thomas Virgo, MP

Department of the Minister of Roads and Transport and Minister of Local Government	Highways Department
	Motor Vehicles Department

MINISTER OF AGRICULTURE AND MINISTER OF FORESTS

Hon. Thomas Mannix Casey, MLC

Minister of Agriculture Department
Agriculture Department
Agricultural College Department

Chemistry Department
Woods and Forests Department
Produce Department

**MINISTER OF ENVIRONMENT AND CONSERVATION AND
MINISTER ASSISTING THE PREMIER**

Hon. Glen Raymond Broomhill, MP

Department of Environment and Con-
servation

MINISTER OF LABOUR AND INDUSTRY

Hon. David Hugh McKee, MP

Department of Labour and Industry

MINISTER OF HEALTH

Hon. Donald Hubert Louis Banfield, MLC

Hospitals Department

Department of Public Health

LEGISLATION

During 1972, 155 Public Acts were passed by the State Parliament: forty-two new Acts and 113 amendments of existing Acts. Details of some of the more important legislation passed during this period are given below.

Coast Protection Act, 1972 (No. 49). An Act to make provision for the conservation and protection of the beaches and coast of South Australia and of adjacent islands.

Colleges of Advanced Education Act, 1972 (No. 121). An Act to confer autonomy on Adelaide, Bedford Park, Salisbury and Wattle Park Teachers Colleges; to provide for the establishment of new colleges; and to provide for the administration of those colleges.

Community Welfare Act, 1972 (No. 51) repealed the Social Welfare Act, 1926-1971, the Aboriginal Affairs Act, 1962-1968 and the Childrens Protection Act, 1936-1969 and enacted legislation to promote the various aspects of community welfare in South Australia.

Consumer Transactions Act, 1972 (No. 135) repealed the Hire-Purchase Agreements Act, 1960-1971, and enacted legislation to provide protection for consumers in certain classes of transactions.

Credit Act, 1972 (No. 134) repealed the Money Lenders Act, 1940-1966 and enacted legislation to regulate and control the provision of credit.

Daylight Saving Act Amendment Act, 1972 (No. 81) amended the Daylight Saving Act, 1971 to provide for the observance of daylight saving in this State in the forthcoming and ensuing summers from the last Sunday in October to the first Sunday in March.

- Industrial Conciliation and Arbitration Act, 1972 (No. 125). An Act to consolidate and amend the law relating to industrial conciliation and arbitration.
- Licensing Act Amendment Act, 1972 (No. 44) amended the Licensing Act, 1967-1971, to extend drinking hours in hotels and other licensed premises under certain conditions, and to widen eligibility for special licences.
- Misrepresentation Act, 1972 (No. 46). An Act to provide for criminal sanctions against misrepresentation in certain commercial transactions and to expand the remedies available at common law and equity for misrepresentation.
- Murray New Town (Land Acquisition) Act, 1972 (No. 35). An Act to authorise the acquisition by the State Planning Authority of not more than 10,000 hectares of land for the purpose of establishing a new town.
- Ombudsman Act, 1972 (No. 115). An Act to provide for the appointment of an Ombudsman to investigate the exercise of the administrative powers of certain departments of the Public Service and other authorities, and to provide for the powers, functions and duties of the Ombudsman.
- Public Assemblies Act, 1972 (No. 28). An Act to provide for the orderly conduct of assemblies and processions in public places.
- Road Traffic Act Amendment Act (No. 2), 1972 (No. 146) amended the Road Traffic Act, 1961-1972 to require a medical practitioner to take a sample of blood from any person apparently over the age of fourteen years who attends at or is admitted into a hospital after a road accident.
- South Australian Board of Advanced Education Act, 1972 (No. 47). An Act to establish a Board of Advanced Education to co-ordinate, rationalise and produce a balanced system of tertiary education and training.
- South Australian Film Corporation Act, 1972 (No. 48). An Act to make provision for the establishment of the South Australian Film Corporation and to define its powers and functions.
- Torrens College of Advanced Education Act, 1972 (No. 148). An Act to provide for the establishment of the Torrens College of Advanced Education; to provide for its administration and to define its powers; and to incorporate within the College the education institutions previously known as the South Australian School of Art and the Western Teachers College.
- Unordered Goods and Services Act, 1972 (No. 22). An Act relating to the sending of unordered goods, the making of charges for directory entries and the rendering of certain unrequested services.

Complete details of Acts passed are contained in the volumes of *Acts of the Parliament of South Australia*.

OVERSEAS REPRESENTATION

South Australia is represented in London by the Agent-General for South Australia, at South Australia House, 50 Strand, London. As official representative of the State, it is the function of the Agent-General to work in close co-operation with the High Commissioner for Australia, to keep the State Government informed of political and economic developments overseas, to promote industrial development and investment in South Australia, to encourage

immigration to the State and to foster trade with the United Kingdom and other countries. The present Agent-General and Trade Commissioner is Mr R. C. Taylor.

INTERSTATE REPRESENTATION

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

CONSULAR REPRESENTATIVES

There are twenty-two countries represented in South Australia by consuls, vice-consuls, consular-agents, consul-generals or deputy high commissioners.

Austria: John A. Nelson, Consular-General^(a)

Belgium: Robert E. Porter, Consul

Britain: Henry O'Brien, Consul General^(b)
Derek Reed, Vice-Consul (Commercial)^(b)

Denmark: Trevor R. Taylor, Consul

Dominican Republic: Peter H. D. Lathlean, Consul

Finland: Robert N. Irwin, Consul

France: Vacant

Germany: Bruce R. Macklin, Consul

Greece: Vassile P. Apostol, Consul

Guatemala: Robert M. Napier, QC, Consul

Italy: Dr Antonino Provenzano, Vice-Consul^(b)

Japan: J. Langdon Parsons, Consul

Lebanon: Archie M. Hambour, Consul

Liberia: William B. Coombs, Consul

Mexico: John J. Roche, Consul

Netherlands: M. M. Keukenmeester, Consul

Norway: John N. Howe, Consul

Philippines: J. Rolfe Sabine, Consul

Portugal: Raymond F. Walters, Vice-Consul

Sweden: Mrs June Tanner, Consul

Switzerland: Paul A. Richter, Vice-Consul

United States of America: Thomas Manuel, Consular-Agent

(a) Dean of the Consular Corps.

(b) *Consul de Carriere*.

STATE EMBLEMS

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

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

3.4 SEMI-GOVERNMENT AUTHORITIES

A semi-government authority 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, of a State, or of a Territory) created by or under legislation to carry out an activity or activities on behalf of a Government, or a body in which a Government has a controlling interest'.

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

Most semi-government authorities 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 semi-government authorities 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 semi-government authorities which operate in South Australia.

3.5 LOCAL GOVERNMENT

LOCAL GOVERNMENT AUTHORITIES

Local Government Areas: Number, Size, and Status

At 1 January 1972 there were 137 local government areas in South Australia, and with the exception of one area, each is controlled by a council consisting of members elected by local ratepayers and exercising powers under the Local Government Act, 1934-1972. The Garden Suburb Commission, Colonel Light Gardens, is administered by a Commissioner appointed by the Governor.

The total area incorporated in local government areas at 1 January 1971 was 57,856 square miles; this is only slightly above 15 per cent of the total area of the State but contains almost 99 per cent of the State population.

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

Of the 137 local government areas at 1 January 1972, 40 were municipalities (including 24 cities) and 97 were district council areas.

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

As a result of legislation passed in 1969 district councils may apply to the Governor for mayoral status; in previous years only municipal councils had mayors. Since the legislation eight district councils, Berri, Clare, Gumeracha, Kanyaka-Quorn, Kapunda, Millicent, Loxton and Waikerie have been granted mayoral status.

Functions of Local Government

The Local Government Act, 1934-1972 prescribes most of the 'powers and authorities' which each council shall or may exercise 'for the good government' and 'the management of the affairs' of its area, but some functions devolve from other Acts. To enable it to sue and be sued and to participate in transactions involving the purchase and sale of land and other property each council is constituted as a corporate body.

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

Organisation and Representation

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

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

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

Any municipality may apply to add no less than three and no more than six aldermen to its council. The qualifications for councillors apply to aldermen, except that aldermen are not bound by the limits of wards, and an alderman must have served at least one year as a member of the council. Although the

functions of aldermen are not specifically defined the concept is that they should impartially consider the interests of the area as a whole and so resolve any conflict which may arise between sectional interests represented by councillors.

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

Allowances

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

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

Franchise

British Subjects, over the age of eighteen, who either own or occupy ratable property within an area are eligible to be enrolled for, and to vote at, elections for that area provided that they are not in arrears with their rates. Companies or corporations owning or occupying ratable property within the area are entitled to nominate up to three persons to vote on their behalf at the elections for that area, depending on the method of valuation; the entitlement is for the nomination of one vote for each \$300 of annual (improved) value or \$2,000 of unimproved (land) value or part of either, up to three voters for any one property. Special provision is also made to allow certain defence personnel to vote.

Officers and their Functions

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

Employment in local government administration is now regarded as a career; most town and district clerks are full-time employees, and councils are required to employ in those positions only those persons who have passed examinations qualifying them for the work. The town or district clerk maintains the voters roll and in many cases is appointed returning officer for elections. The characteristics of particular areas determine to some extent the nature of the duties performed by town and district clerks; they often undertake a very wide variety of functions, especially in smaller areas, where even the part-time employment of specialist officers for particular tasks is not warranted. Other officers employed in local government are required to hold appropriate qualifications; these include engineers, overseers, building surveyors and inspectors, health inspectors and authorised weed officers.

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

Whenever a council itself undertakes a new assessment of property values within its area it is required under the Local Government Act to appoint a valuer who recommends to the council a valuation of each property for rating

purposes. A ratepayer may appeal against a council's valuation of his own property or that of another ratepayer. Instead of undertaking its own assessment of property values it is now not uncommon for a council to adopt the valuations of the Valuation Department. When this is done a council avoids the necessity of employing a valuer but a fee for each valuation is payable to the Valuation Department. There is no right of appeal to the council against valuations so based; in respect of the Government unimproved valuation the right of appeal lies against the Department when the valuation is made.

Finance

Local government authorities derive their revenue from many different sources, including sundry licences and fines, but the principal sources are rates, loans raised against the security of future rates, and government grants. The relative importance of these sources of revenue varies between areas and through time within areas, *e.g.* in closely settled well developed areas rate revenue is usually predominant; in large sparsely settled areas government grants, mainly for road-works, may at times be the chief item of revenue; in areas being rapidly and extensively developed for housing or industrial purposes both government grants and loan funds may be prominent.

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

A large proportion of local government expenditure from both loan funds and other revenue is for the construction and maintenance of roads, footpaths, and stormwater drains.

A revised system of local government accounting was introduced from 1 July 1968 involving, among other things, a change of basis from cash to accrual accounting. More detailed attention is given to local government finance in Part 12.5.

Local Government Report

A major 'Report by the Local Government Act Revision Committee on Powers, Responsibilities and Organisation of Local Government in South Australia' was released early in 1970. The Report, prepared following the appointment of the Committee in 1965, is the first in Australia to investigate the functions and responsibilities of local government. The Committee received 8,470 pages of transcript and written submissions criticising 1,005 of the 1,029 sections of the existing Act. The Committee has recommended that a new Local Government Act be prepared and that local authorities should be given wider powers to more effectively provide services and other assistance to ratepayers.

3.6 TOWN AND REGIONAL PLANNING

Legislation

In 1920 the South Australian Parliament passed the Town Planning and Development Act which followed the Control of Subdivision of Land Act of 1917. These Acts were the first of their kind in Australia. The Act of 1920 made provision for the preparation of town planning schemes and by-laws, for the appointment of a Government Town Planner and a Town Planning Department. The

Department prepared plans for various areas, including Colonel Light Gardens and the townships of Iron Knob and Barmera. The Acts of 1917 and 1920 were repealed by the Town Planning Act, 1929 which dealt only with the control of land subdivision.

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

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

The Planning and Development Act, 1966-1967 repealed the Town Planning Act, 1929-1963. It established an eleven-member State Planning Authority (with a Director of Planning as Chairman) and an independent Planning Appeal Board of four members. Provisions were made for the Planning Authority to implement and review the 1962 Development Plan, to prepare similar plans for other parts of the State and in conjunction with local government authorities to determine broad policies to guide the growth of towns and cities throughout the State.

The Planning and Development Act Amendment Act, 1971 reconstituted the State Planning Authority to include a wider representation of experts in the fields of local government, conservation and aesthetics. Further amendments in 1972 permit the appointment of permanent commissioners to the Planning Appeal Board and establish special interim provisions relating to the City of Adelaide.

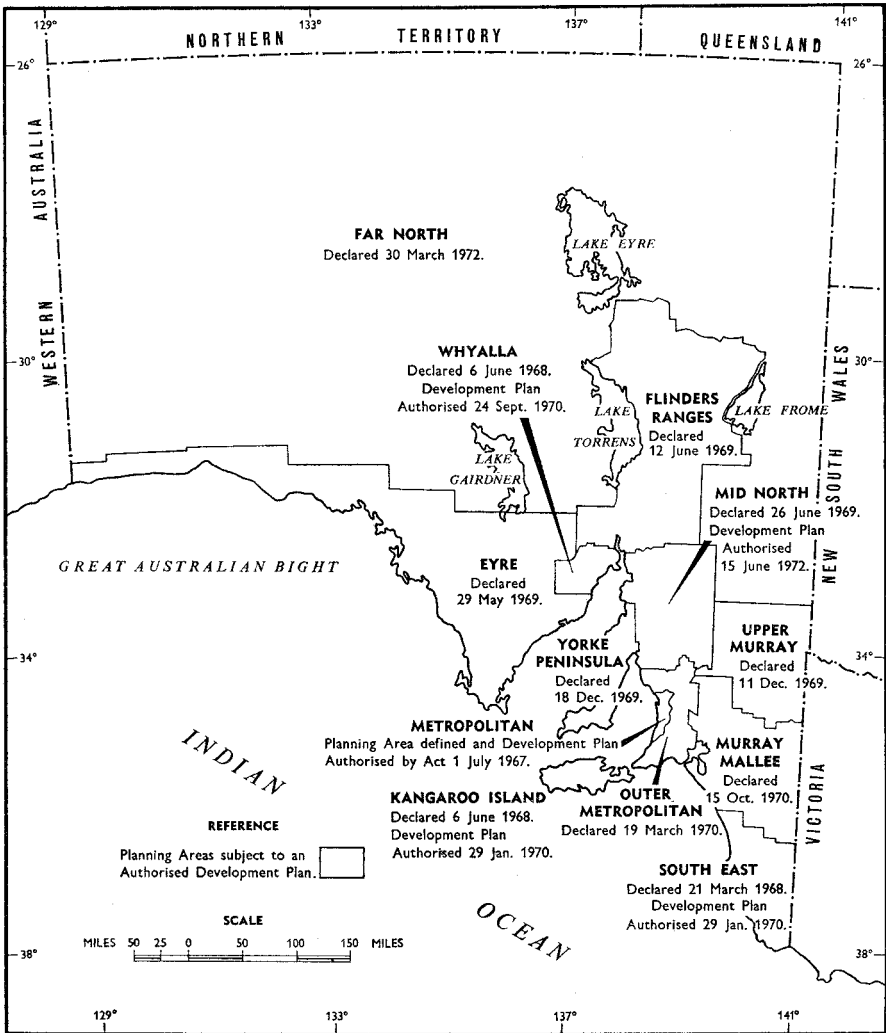
Development Plans

Twelve planning areas have been declared covering the whole of the State. Development plans have been authorised for five of these areas, namely, Metropolitan (1 July 1967), South East (29 January 1970), Kangaroo Island (29 January 1970), Whyalla (24 September 1970) and Mid North (15 June 1972). Work on preparing development plans for the remaining areas of the State is proceeding.

In some parts of the State, such as in the Metropolitan area and Whyalla, the planning emphasis is on controlled development, whereas in the Flinders Ranges and Kangaroo Island, conservation of the natural resources and beauty of the area is being stressed.

The process of preparing a development plan involves a considerable amount of public participation. Local councils, government departments and interested groups and individuals are consulted during the preparation of the plan, and the general public is given the opportunity to comment on it during a two month public exhibition period. Following the receipt of any representations the State Planning Authority submits the development plan to the Minister in its original or amended form. The Minister in turn forwards the plan to the Governor with his recommendation for action.

SOUTH AUSTRALIA PLANNING AREAS



The Governor may decide to authorise the plan, reject it, amend it, on the basis of the representations received or send it back to the Authority for further consideration.

Although rather a lengthy process, it does mean that the public has an opportunity to participate in the future development and conservation of the State.

Where existing development plans need to be updated or revised, a similar process is put in motion for the preparation of a Supplementary Development Plan. In the Metropolitan Planning Area a Supplementary Development Plan to amend the alignment of a number of major transportation routes was authorised on 4 November 1971. Other supplementary development plans will deal with amendments to the arterial and scenic road network in the Metropolitan area, development of the Willunga area and redevelopment of about 14 acres of land in Hackney.

Development Control

Control of development in accordance with a development plan is by regulation and the Authority or the appropriate local government body can recommend to the Minister that regulations be made. Such regulations may, for example, deal with land use zoning or reservation of land for acquisition for a particular purpose.

The regulations must be exhibited publicly and opportunity given for objections to be lodged before being submitted to the Minister. Any person aggrieved by a decision given under a regulation may appeal to the Planning Appeal Board with a subsequent right of appeal to the Land and Valuation Court on a point of law.

Most local councils in the Metropolitan area have gazetted zoning regulations to control development within their areas. A number of councils in country areas have also taken steps to introduce zoning regulations.

The State Planning Authority directly controls development in the Hills Face Zone, comprising the high land overlooking Metropolitan Adelaide between Gawler and Sellicks Beach. The intention is to retain the basically rural character of the area. The Authority is also in the process of introducing environmental control regulations to protect and conserve the character of Kangaroo Island and other scenic areas of the State.

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

By October 1972, 4,358 acres of land had been acquired for major open spaces and regional parks in the metropolitan area at a cost of \$2,800,000. The Planning and Development Fund is also being used to acquire the properties comprising the Hackney redevelopment area.

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

The Minister Assisting the Premier is responsible for the administration of the Planning and Development Act. The Director of Planning heads the State Planning Office which forms part of the Department of Environment and Conservation.

Murray New Town

A new town to cater to over 100,000 people is to be established in the vicinity of Murray Bridge, 50 miles east of Adelaide.

The Murray New Town (Land Acquisition) Act, 1972 authorises the State Planning Authority to acquire an area of not more than 10,000 hectares (nearly 40 square miles) within 30 kilometres (nearly 20 miles) of Murray Bridge for the purpose of establishing a new town. A site for the new town has now been chosen and detailed planning is now proceeding. The town is to be named Monarto.

The Murray New Town Steering Committee is investigating the type of authority that should develop and operate the new town, the most appropriate form of land tenure, incentives that may have to be given to ensure a broad economic base for the new town and the role of local government in the new town.

Coast Protection

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

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

The Heysen Trail

A walking and horse-riding trail is to be established in South Australia from Cape Jervis, approximately 50 miles south of Adelaide, to Mount Hopeless, in the Northern Flinders Ranges, approximately 450 miles north of Adelaide, a total distance of 500 miles.

The trail is to be secured by the South Australian State Planning Authority and will be named the Heysen Trail in memory of Sir Hans Heysen (1877-1968), the eminent landscape artist, whose best work includes paintings of the stark gum trees and vivid rocks of the Flinders Ranges. A detailed description of the proposed route of the trail and its objectives, together with a map, were included on pages 88-90 of the *South Australian Year Book* 1972.

PART 4

LAND SETTLEMENT

4.1 LAND TENURE

IDENTIFICATION OF LAND AND REGISTRATION OF TITLE

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

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

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

In 1887 an area of 250,000 acres was declared to provide for the town and irrigation area of Renmark on the River Murray. Similar areas were subsequently surveyed and proclaimed adjacent to other sections of the river.

There are currently forty-nine counties covering 23 per cent of the State, the last of these being declared in 1933. The counties have an average size of 1,143,000 acres, varying from County Light, north of Adelaide, with 536,960 acres to County Jervois on Eyre Peninsula with 2,368,000 acres.

Counties are generally subdivided into hundreds, although four northern counties remain undivided and a number of others are only partly subdivided. There is considerable variation in the size of hundreds, while the number of hundreds in a completely subdivided county varies from eight in Counties Alfred and Kintore to thirty-four in County Jervois. New hundreds are created from time to time, the present total being 535. Hundreds are further subdivided into sections which in turn may be divided into allotments or occasionally blocks.

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

Torrens System of Land Registration

Land transactions in South Australia are conducted under the Torrens system of land registration as provided by the Real Property Act, 1886-1972. This system, first introduced by the Real Property Act, 1858, was named after its author, Sir Robert Torrens, who was at that time Registrar-General of the Colony.

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

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

Details of property transferred are estimated from records available in the Stamp and Succession Duties Office. The following table shows the number and value of transfers of property for each of the five years to 1971-72.

Property Transferred

Year	Number	Value (\$'000)
1967-68	37,308	282,000
1968-69	37,547	302,900
1969-70	42,574	342,600
1970-71	42,460	362,400
1971-72	47,667	447,800

SYSTEMS OF TENURE

LAND ADMINISTRATION

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

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

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

CURRENT TENURE

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

At 30 June 1972 land in South Australia was occupied as follows:

	Area Acres	Proportion Per cent
Area sold, dedicated, etc.;		
Sold	15,121,604	6.21
Free grants	916,699	0.38
Dedicated (a)	308,838	0.13
Under agreement to purchase	287,668	0.12
Total	148,675,670	61.12
Area under lease and licence (b);		
Perpetual	21,057,650	8.66
Pastoral	126,080,979	51.83
Other	1,537,041	0.63
Total	148,675,670	61.12
Area in occupation	165,310,479	67.96
Remainder of State;		
Lakes and lagoons	7,904,800	3.25
Open for allotment or selection	6,732	0.01
Other vacant land (c)	70,022,789	28.78
Total area of State	243,244,800	100.00

(a) Includes State forest reserves.

(b) Includes areas held under Mining Acts.

(c) Includes surveyed roads, railways and other reserves, 22,943,482 acres of which 18,842,665 acres are set apart as Aboriginal reserves.

In 1901 the area sold, granted and leased, *i.e.* the area occupied, was 93,666,052 acres, increasing to 141,907,525 in 1924, but falling to 129,411,612 in 1931 because of decreased areas under pastoral lease. Since 1931 there has been a fairly steady increase to the present figure of 165,310,479 acres.

METHODS OF ALIENATING LAND

Sales under Agreement to Purchase

There is provision for Crown lands to be alienated through an agreement to purchase. The purchase money is payable over varying terms not exceeding sixty-four years and the purchaser must comply with certain special conditions concerning the improvement and the development of the land, including the fencing of the property within the first five years. It is not necessary for an agreement to run the full term as, subject to the Minister's approval, purchase may be completed after six years provided the purchaser has complied with all the necessary conditions. Land allotted under Agreements to Purchase amounted to 84 acres in 1971-72.

Sales at Auction

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

Free Grants and Reservations

A free grant of Crown lands may be made for any public purpose. Of the 916,699 acres thus alienated at 30 June 1971, 768,000 acres had been granted for the Weapons Research Establishment. Lands may also be dedicated and reserved for a variety of purposes such as forest reserves, Aboriginal reserves, national parks, conservation parks, recreation parks, parklands and schools.

METHODS OF LEASING AND LICENSING LAND

Leases for Limited Terms

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

Persons may be granted a permit to search for water and if successful may take up a lease of 100 square miles of land. Such leases are granted for forty-two years at a nominal rental for the first ten years and a low rental thereafter. Conditions of stocking are also modified.

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

Land reserved for the Woods and Forest Department was leased for cultivation or grazing purposes for a period not exceeding forty-two years. At 30 June 1972, 957 acres of forest land were under lease.

Perpetual Leases

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

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

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

During 1971-72, 290 acres in irrigation areas were allotted under perpetual leases.

MINING CLAIMS, LEASES AND LICENCES

Legislation

The Mining Act, 1971 which repealed the Mining Act, 1930-1962, was assented to in December 1971 and came into force on 3 July 1972. The current legislation is the Mining Act, 1971-1972.

Under the new Act, all leases current at 3 July 1972 remained in existence for twelve months irrespective of their previous termination date; the rights of current 'Authority to Enter' holders were protected for twelve months from that date; and a person lawfully mining on 'private land' immediately before the commencement of the new Act was able to continue mining for six months from that date and longer if he officially declared the mine to be a 'private mine'.

After the proclaimed date any pegging of new claims or granting of leases and licences have been governed by the new Act and its regulations.

Areas Held under Mining Acts, South Australia At 30 June

Particulars	1967	1968	1969	1970	1971
	Acres				
Claims.....	17,169	16,597	16,416	39,857	52,884
Leases.....	15,489,944	14,502,782	25,859,231	39,542,018	(a)42,331,857
Petroleum licences and permits.....	240,791,040	207,260,160	212,188,160	206,862,080	193,288,320

(a) Lands held under Special Mining Leases accounted for 42,246,880 acres of land occupied under lease at 30 June 1971.

Mineral royalties received by the Department of Mines during 1970-71 amounted to \$1,797,678.

Minerals Resumed

The mineral rights on private land have been resumed by the Crown so that all minerals are now the property of the Crown and there are no 'lands with the mineral rights alienated by the Crown' with different conditions applying to them. However, if minerals (other than extractive minerals) which have been resumed under the Mining Act, 1971-1972 are mined at any time in the future, the royalty can be claimed by the person who held the mineral rights immediately before the commencement of this Act.

A royalty of 2.5 per cent (5 per cent for extractive minerals) of the value of the minerals immediately upon recovery from the earth is payable to the Minister of Development and Mines 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 not fire-clay, bentonite or kaolin.

No person is permitted to peg claims for extractive minerals on freehold land other than the person who, immediately before the operation of the Mining Act, 1971 held the mineral rights or had rights to mine the minerals by holding a claim or lease over the deposit. Normal pegging rights apply to extractive minerals on other than freehold land or exempt land, and also apply to other minerals on freehold land.

Under the new Act, all the royalties collected from the mining of extractive minerals are paid into an 'Extractive Areas Rehabilitation Fund' to be used in rehabilitating land disturbed by the mining of or searching for extractive minerals.

General Conditions

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

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

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

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

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

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

4.2 LAND SETTLEMENT SCHEMES

CLOSER SETTLEMENT

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

No land has been purchased for closer settlement since 1952-53, by which time 948,885 acres had been purchased at a cost of \$5,730,400, including 51,872 acres set apart for returned service personnel from the 1914-18 War, 3,214 acres for forest and water conservation purposes and 26,563 acres purchased in connection with the reclamation of River Murray swamp lands.

At 30 June 1972 a total of 153,156 acres of closer settlement lands were held under agreement to purchase or lease.

MARGINAL AREAS ASSISTANCE

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

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

The fund was provided by the Commonwealth Government under the *Wheat Industries Assistance Act 1938*. An amount of \$1,426,000 was allocated to South Australia. By arrangement with the Commonwealth the rentals and income from sales of improvements on marginal lands which had been subject to adjustments under the above fund are retained as an additional fund to be used for assistance to settlers in marginal areas. Receipts for 1971-72 amounted to \$26,577.

During 1967-68 an amount of \$150,000 was transferred from this fund to the Farmers Assistance Fund. No advances were made from this fund during 1971-72. The balance of the fund at 30 June 1972 was \$316,321.

CROWN LANDS DEVELOPMENT

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

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

ASSISTANCE FOR RETURNED SERVICE PERSONNEL

1914-18 WAR

Following the 1914-18 War the State Minister for Repatriation was authorised to acquire land for the purpose of re-settling discharged servicemen. Such land could be purchased by agreement or acquired compulsorily, whether held in fee

simple or under Crown lease. Crown lands could also be set apart for this purpose. The land acquired was subdivided where appropriate and offered under agreement to purchase, perpetual lease or a term lease. Provision was also made for the discharging of existing mortgages on freehold properties already held by ex-servicemen, with fresh mortgages in favour of the Minister of Repatriation.

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

1939-45 WAR AND KOREA-MALAYA OPERATIONS

War Service Land Settlement

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

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

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

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

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

Particulars	1959	1962	1965	1968	1971	1972
Farms allotted:						
Number	984	1,015	1,022	1,032	1,032	1,032
Area ('000 acres)	623	671	688	704	704	704
Expenditure:						
State	3,310	4,742	6,612	7,064	7,670	8,250
Commonwealth;						
Acquisition of land	6,358	6,914	6,836	6,837	6,837	6,837
Development and improvement of land	25,414	28,214	29,748	30,336	31,016	31,558
Provision of credit facilities	8,690	18,852	27,008	33,218	37,241	37,663
Other	3,634	6,472	9,454	10,540	12,052	13,580
Total expenditure by Commonwealth	44,096	60,452	73,046	80,931	87,146	89,638
Total expenditure	47,406	65,194	79,658	87,995	94,816	97,888

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

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

Loans and Allowances (Agricultural Occupations) Scheme

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

An additional Marginal Lands Improvement Fund was established in 1943 from which expenditure of \$416,476 had been made to 30 June 1972 by the Department of Lands.

PRIVATE LAND DEVELOPMENT SCHEMES

The most important private scheme in South Australia has been a project, begun in 1949 by the Australian Mutual Provident Society, involving the development of a considerable area of land in the south-east of the State in what was previously known as the Ninety Mile Desert. The development of this area was made possible by the discovery that the retarded nature of the country was caused by certain soil deficiencies, and that these deficiencies could be overcome by the addition of trace elements (mainly copper sulphate and zinc sulphate) to the soil.

Large tracts of unimproved land were obtained either by purchasing existing leases or by Crown allotment. Intending settlers were employed by the Society in the development work, covering a period of approximately five years, and were then allotted a holding over which they had a perpetual lease title. The Society provided finance for the purchase and for stock, plant and working expenses. In all, 96,000 acres were taken up by employees of the Society.

In addition to the development of land for employees a large area was administered to various stages of development and sold to the public; sales in this category amounted to 327,000 acres.

ADVANCES TO THE RURAL SECTOR GOVERNMENT ADVANCES

Advances Administered by State Bank

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

Under the Advances to Settlers Act, 1930-1970, the bank makes advances to settlers for a variety of purposes including general improvements, the purchase of livestock and the discharging of existing mortgages. The Loans to Producers Act, 1927-1962 empowers the bank to make advances for certain developmental

projects and the purchase of certain capital equipment. The bank also administers Acts providing loans for the construction of vermin-proof fencing, general fencing and the laying of water piping.

Rural Industry Assistance (Special Provisions) Act, 1971-1972

This Act, which became operative on 27 May 1971 effects an agreement between the Commonwealth and the State for a scheme of assistance to help restore to a profitable basis those farms and farmers with a capability to service commitments and reach a stage of commercial viability within a reasonable time. The scheme provides for carry-on finance, debt reconstruction, farm build-up and rehabilitation loans.

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

Farm build-up is to assist the process whereby farms which are too small to be profitable can be enlarged to an economic unit. Interest on advances is chargeable at 6.25 per cent a year.

Funds were provided initially by the transfer of the balance of the Primary Producers Debt Adjustment Fund (\$804,636) to the Rural Industry Fund. Other contributions to the Fund are made by the Commonwealth in accordance with the Agreement and at 30 June 1972, \$3,000,000 had been received.

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

Rural Industry Assistance: South Australia, Applications, Approvals and Expenditures from Commencement of Operations to 30 June 1972^(a)

Debt reconstruction:

Applications received	653
Applications declined	272
Applications approved	214
Total assistance approved	\$4,216,822
Expenditure to 30 June 1972	\$3,430,332
Average assistance approved (including outstanding balance current account)	\$20,052

Farm build-up:

Applications received	74
Applications declined	23
Applications approved	12
Total assistance approved	\$412,424
Expenditure to 30 June 1972	\$206,242
Average assistance approved	\$34,369

Rehabilitation:

Applications received/approved	8
Total assistance approved	\$7,500
Expenditure to 30 June 1972	\$2,507

Current Account budgets:

Budgets approved	83
Total of approved budget expenditure	\$1,421,297
Actual expenditure to 30 June 1972	\$169,465
Less advances recouped	\$95,059
Balance	\$74,406

(a) Commenced 27 May 1971.

Marginal Dairy Farms (Agreement) Act, 1971

This Act gives effect to an Agreement between the State and the Commonwealth to overcome the problem of low incomes within the dairy industry, particularly in the case of producers relying on the sale of milk or cream for manufacturing purposes.

The Scheme provides for farmers whose farms have insufficient potential to become viable economic units, while based on the sale of milk or cream for manufacturing purposes, to voluntarily sell their land to the State at market value. The State may then dispose of the land on the basis of the most profitable and economic land use, particularly with a view to building other rural properties to economic levels.

At 30 June 1972, eighteen applications had been received of which seven were approved and eleven were declined. Funds for the Scheme are provided by the Commonwealth when required. At 30 June 1972, \$210,000 had been received and \$115,048 had been expended on the purchase of dairy farms for approved applicants.

Financial Details

The following table gives details of total advances made to the rural sector by government authorities and balances outstanding at 30 June 1972.

Advances to Settlers, South Australia

Particulars	Advances made during 1971-72	Total Advance at 30 June 1972	Principal Outstanding at 30 June 1972	
			Persons	Amount
	\$	\$	Number	\$
Department of Lands:				
Advances to soldier settlers	—	10,143,560	182	207,480
Advances under closer settlement Acts	—	5,461,033	169	193,341
Settlement of returned service personnel (1939-45 War) (a)	850,384	37,613,051	733	10,577,738
Advances under Crown Lands Development Act	—	985,623	47	644,696
Advances in drought affected areas	128,091	722,607	142	215,735
Advances under Marginal Dairy Farms Reconstruction Scheme	84,545	84,545	4	81,726
Advances under Rural Industry Assistance Scheme	3,808,546	3,808,546	204	3,632,255
Advances to soldier settlers; Irrigation	—	2,096,348	71	102,281
State Bank of South Australia:				
Advances to settlers for improvements (b)	82,906	4,109,055	399	1,380,234
Advances under vermin and fencing Acts (c)	1,294	2,972,832	62	92,731
Advances under loans to producers Acts	2,251,226	21,645,674	227	8,957,845
Total	7,206,992	89,642,874	2,240	26,086,062

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

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

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

PRIVATE INSTITUTIONAL ADVANCES

Many financial institutions advance funds for rural development.

At July 1972 the major trading banks had advances outstanding to residents of South Australia employed in agriculture, dairying and grazing, of \$73.0 million. At June 1972 branches of major pastoral finance companies located in South Australia had \$63.3 million outstanding on similar advances.

4.3 STATISTICAL DIVISIONS AND SUBDIVISIONS

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

PREVIOUS STATISTICAL DIVISIONS

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

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

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

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

CURRENT DIVISIONS AND SUBDIVISIONS

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

The new statistical divisions were designed to represent closely allied and meaningful areas of production and community of interest and where areas smaller than divisions were considered to be important, subdivisions were introduced. Where practicable, entire local government areas are embraced in divisions and subdivisions. This facilitates the aggregation of statistics in a hierarchical structure rising from local government area to whole State through subdivision and division totals. Apart from major changes in relevant local government area boundaries, for which special provision will necessarily have to be made, it is considered that the statistical division and subdivision boundaries now adopted, should be suitable for a period of fifteen to twenty years.

These statistical divisions and subdivisions have been adopted for the publication of official statistics from 1 January 1971. A map showing the statistical divisions and subdivisions is included inside the back cover of this volume. A more detailed article together with descriptions of the divisions and subdivisions was included on pages 96-104 of the *South Australian Year Book* 1971.

PART 5

POPULATION

5.1 THE CENSUS

PRE-FEDERATION ACTIVITY

Early 'musters'

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

Development of the census

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

CENSUSES OF THE COMMONWEALTH

Under the Commonwealth of Australia Constitution Act of 1900, 'Census and Statistics' became Commonwealth functions and with the passing of the empowering legislation, the *Census and Statistics Act 1905*, all censuses of the Commonwealth of Australia have been taken under the authority of this Act, (now

Census and Statistics Act 1905-1966) and the regulations made thereunder. The first Australian census collected under the Act was that of 1911; subsequent censuses were taken in the years 1921, 1933, 1947, 1954, 1961, 1966 and 1971, while the next census is planned for 1976. The Act provides that the census should be taken by means of a householder's schedule delivered to every dwelling and that this schedule should contain particulars of the dwelling and its inmates.

Periodicity and date of the census

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

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

Scope of the census

The census covers the population of the Commonwealth and the dwellings in which it lives.

Persons excluded from results of Censuses up to 1966 were:

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

However, following the results of a Commonwealth referendum held in 1967, Section 127 of the Constitution was repealed and full-blood Aborigines were included in the 1971 Census and will be included in all future censuses. In 1971 Census publications, where it is intended to show also 1966 figures, the 1966 figures will be amended to include Aborigines and thus provide comparability.

Broadly the principle is to record at the census babies born at or before midnight of census day and to exclude persons dying before midnight of census day.

Travellers on ships in or between Australian ports at midnight of census day are also included.

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

Measurable characteristics such as 'class' of dwelling, materials of outer walls, number of inmates in relation to number of rooms, facilities and rentals are recorded.

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

Commonwealth Parliamentary representation and the census

The *Representation Act* 1905-1964 obliges the Chief Electoral Officer to ascertain the number of people in the Commonwealth and in each of the States from time to time for the purpose of determining the number of Members of the House of Representatives to be chosen from each State, all 'Statistical Officers of the Commonwealth' being authorised and required to furnish all the information the Chief Electoral Officer needs for this purpose.

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

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

5.2 POPULATION GROWTH AND DISTRIBUTION

The population of South Australia had reached 17,366 persons at the first Census on 26 February 1844. In 1861, twenty-five years after the first settlers arrived, the population was 126,830 and this figure had more than doubled by the Census in 1881. By 1921 the population was almost 500,000 persons and it is estimated to have reached 1,000,000 persons in January 1963. The population enumerated at the Census, 30 June 1966 was 1,094,984 persons and the Census of 30 June 1971 showed it to be 1,173,707 persons.

Population: South Australia, Censuses 1844 to 1971

Census Date	Population (a)			Average Annual Increase	
	Males	Females	Persons	Number	Per Cent
1844 26 February	9,686	7,680	17,366	..	..
1846 26 February	12,670	9,720	22,390	2,512	14.47
1851 1 January	35,302	28,398	63,700	8,262	36.90
1855 31 March	43,720	42,101	85,821	5,530	8.68
1861 8 April	65,048	61,782	126,830	6,835	7.96
1866 26 March	85,334	78,118	163,452	7,324	5.78
1871 2 April	95,236	90,189	185,425	4,395	2.69
1876 26 March	109,841	102,687	212,528	5,421	2.92
1881 3 April	145,113	130,231	275,344	12,563	5.91
1891 5 April	161,920	153,292	315,212	3,987	1.45
1901 31 March	180,485	177,861	358,346	4,313	1.37
1911 3 April	207,358	201,200	408,558	5,021	1.40
1921 4 April	248,267	246,893	495,160	8,660	2.12
1933 30 June	290,962	289,987	580,949	7,149	1.44
1947 30 June	320,031	326,042	646,073	4,652	0.80
1954 30 June	403,903	393,191	797,094	21,574	3.34
1961 30 June	490,225	479,115	969,340	24,607	3.09
1966 30 June	550,196	544,788	1,094,984	24,507	2.53
1971 30 June	586,051	587,656	1,173,707	15,745	1.44

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

Following the repeal in August 1967 of Section 127 of the Commonwealth Constitution, official figures of population include full-blood Aborigines from 1966.

Reporting at the 1966 Census was insufficiently precise to enable a reliable dissection of full-blood and half-blood Aborigines to be made and consequently the difference between inclusive figures and exclusive figures of full-blood Aborigines should not be taken as a reliable measure of the Aboriginal population.

Increases in the Population, South Australia^(a)

Period	Recorded Natural Increase			Other Increase			Total Increase		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Annual Average:									
1861-1870	2,052	2,121	4,173	1,003	720	1,723	3,055	2,841	5,896
1871-1880	2,366	2,555	4,921	2,889	1,375	4,264	5,255	3,930	9,185
1881-1890	3,349	3,535	6,884	(-)1,488	(-)1,141	(-)2,629	1,861	2,394	4,255
1891-1900	2,832	3,024	5,856	(-) 973	(-) 567	(-)1,540	1,859	2,457	4,316
1901-1910	2,665	2,745	5,410	(-) 44	(-) 404	(-) 448	2,621	2,341	4,962
1911-1920	3,508	3,614	7,122	366	926	1,292	3,874	4,540	8,414
1921-1930	3,131	3,300	6,431	1,201	714	1,915	4,332	4,014	8,346
1931-1940	(b)1,787	(b)1,929	(b)3,716	(-) 860	(-) 397	(-)1,257	927	1,532	2,459
1941-1950	(b)3,977	(b)4,026	(b)8,003	2,705	1,671	4,376	6,682	5,697	12,379
1951-1960	5,631	5,923	11,554	6,279	5,585	11,864	11,910	11,508	23,418
1961-1970	5,973	6,395	12,368	3,916	4,726	8,642	9,889	11,121	21,010
Year:									
1968	5,394	5,897	11,291	2,041	2,879	4,920	7,435	8,776	16,211
1969	6,055	6,585	12,640	1,946	2,652	4,598	8,001	9,237	17,238
1970	5,979	6,500	12,479	3,686	4,690	8,376	9,665	11,190	20,855
1971	6,487	6,823	13,310	824	1,131	1,955	7,311	7,954	15,265

(a) Excludes full-blood Aborigines before 1966.

(b) Deaths of defence personnel (except those registered on civil registers during 1940 and 1941) not deducted in calculating natural increase.

In the table on page 109, increases in the population have been classified as *recorded natural increase* (the excess of recorded births over recorded deaths) and *other increase* (which consists mainly of the excess of arrivals over departures, either from overseas or interstate). Annual average increases which are given for each ten-year period since 1861 show some important aspects of the development of the State, namely:

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

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

Rate of Increase of Population, South Australia and Australia^(a)

Period	South Australia			Australia		
	Recorded Natural Increase	Other Increase	Total Increase	Recorded Natural Increase	Other Increase	Total Increase
Annual Average						
1861-1870 ...	26.46	10.92	37.38	24.31	12.06	36.37
1871-1880 ...	22.34	19.36	41.70	20.45	10.01	30.46
1881-1890 ...	22.67	(—) 8.66	14.01	19.96	14.23	34.19
1891-1900 ...	16.90	(—) 4.44	12.46	16.91	0.71	17.62
1901-1910 ...	14.70	(—) 1.22	13.48	15.29	1.00	16.29
1911-1920 ...	15.99	2.90	18.89	15.77	4.20	19.97
1921-1930 ...	11.87	3.53	15.40	12.97	5.23	18.20
1931-1940 ...	(b) 6.33	(—) 2.14	4.19	(b) 7.92	0.60	8.52
1941-1950 ...	(b) 12.50	6.83	19.33	(b) 12.04	4.34	16.38
1951-1960 ...	13.81	14.18	27.99	13.71	8.73	22.44
1961-1970(c) ..	11.57	8.09	19.66	11.78	5.75	17.53

(a) Rate per 1,000 of mean population.

(b) Deaths of defence personnel (except those registered on civil registers during 1940 and 1941) not deducted in calculating natural increase.

(c) Excludes full-blood Aborigines before 1966.

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

Estimated Population At 31 December, South Australia^(a)

Year	Males	Females	Persons	Total Increase for Year	Rate of Growth
					Per Cent
1963.....	513,300	506,500	1,019,800	23,960	2.41
1964.....	527,600	521,600	1,049,200	29,361	2.88
1965.....	542,600	537,300	1,079,900	30,796	2.94
1966.....	554,000	549,800	1,103,700	20,684	1.92
1967.....	559,300	556,700	1,115,900	12,186	1.10
1968.....	566,700	565,400	1,132,100	16,211	1.45
1969.....	574,700	574,700	1,149,400	17,238	1.52
1970.....	584,400	585,900	1,170,200	20,855	1.81
1971.....	591,700	593,800	1,185,500	15,265	1.30
1972.....	596,100	600,400	1,196,500	11,046	0.93

(a) Excludes full-blood Aborigines before 30 June 1966.

Intercensal estimates of population are derived by adding to the population ascertained at the Census the recorded natural increase and the allocation to the State of portion of the net gain to Australia by overseas migration; gains and corresponding losses that result from movement between South Australia and other States are also taken into account, in so far as they are recorded as transfers of residence under child endowment procedures or Commonwealth electoral procedures, supplemented by results of any special count or sample survey. These estimates have been revised according to results of the Census 30 June 1971.

The estimates show that an annual increase in population of over 20,000 persons was maintained during the period 1963 to 1966, but it fell significantly below this level in 1967.

The rate of growth of the population, *i.e.* the increase during the period expressed as a percentage of the population at the beginning of the period, fluctuated widely before 1921 then settled at about 2 per cent a year. From 1928 to 1940 the rate was less than one per cent but from 1947 to 1961 it was above 2 per cent with some years in the 1950s exceeding 3 per cent. In eight of the eleven years since 1961, it has fallen below 2 per cent.

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

Estimated Mean Population, South Australia^(a)

Year	Year Ended 30 June			Year Ended 31 December		
	Males	Females	Persons	Males	Females	Persons
1963....	502,100	494,000	996,100	507,800	500,200	1,008,000
1964....	513,900	506,900	1,020,900	520,700	514,100	1,034,800
1965....	527,800	521,500	1,049,300	535,000	529,000	1,064,000
1966....	542,300	536,600	1,078,900	549,800	544,500	1,094,400
1967....	553,800	549,300	1,103,100	556,800	553,100	1,110,000
1968....	559,400	556,300	1,115,700	562,600	560,200	1,122,800
1969....	566,500	564,800	1,131,400	570,500	569,500	1,140,000
1970....	574,800	574,300	1,149,100	579,200	579,500	1,158,600
1971....	583,500	584,600	1,168,100	587,400	589,100	1,176,500
1972....	590,900	592,900	1,183,700	593,400	596,000	1,189,400

(a) Mean population figures for periods before 30 June 1966 are based on estimates exclusive of full-blood Aborigines.

EARLY HISTORY OF SETTLEMENT

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

DISTRIBUTION OF POPULATION

For the purpose of presenting population and dwelling statistics urban centres are delimited by methods first adopted at the Census of June 1966 and apply uniformly throughout Australia.

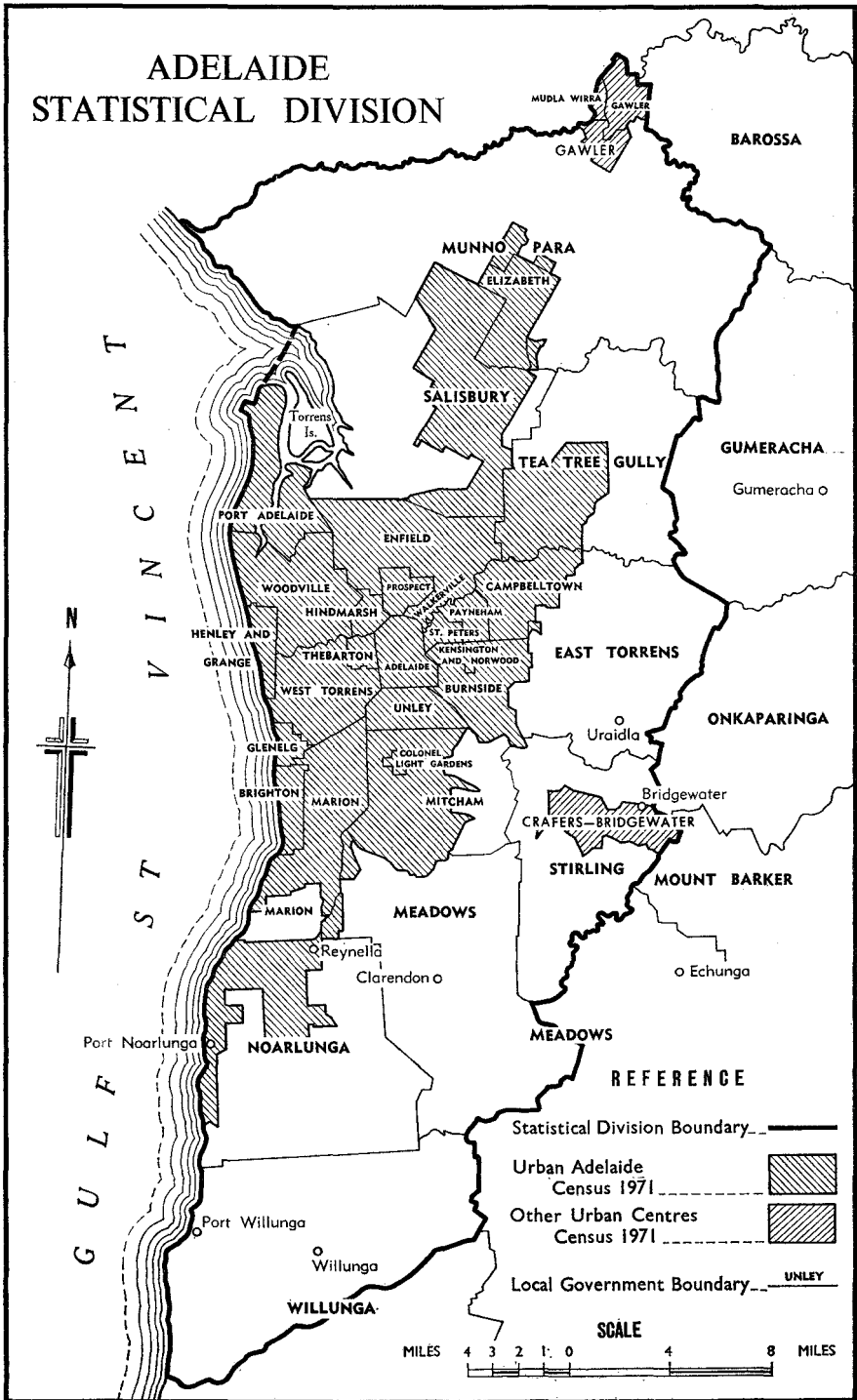
At each Census of Population and Housing a boundary is drawn around each population cluster of 1,000 or more persons (or around known holiday resorts of less population if they contain 250 or more dwellings of which at least 100 are occupied). These clusters are named urban centres and the population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

In delimiting urban centres with 25,000 or more population the basic criterion used is *population density*. The geographic units classified according to the density criterion are collector's districts, the smallest units available. These areas vary in size and shape, but as far as possible they have been designed to ensure that significant urban development in large rural collector's districts is split off as a separate collector's district. Particular rules apply to contiguous areas with special functions, such as airports, sporting areas and industrial areas, which do not meet the density criterion. A gap in urban development which is less than two miles (by the shortest rail or road distance) between the edge of one area of urban development and another is ignored and the urban areas are treated as contiguous; two urban areas separated by a gap of two or more miles are treated as separate urban areas even if the gap comprises mainly reserved land or a natural barrier.

The boundary of such an urban centre will be therefore, the peripheral boundary of an aggregate of contiguous urban collector's districts, the densities of which are at least 500 persons per square mile. The boundary is a moving one which reflects the process of urbanisation. The use of objective criteria enables valid comparisons to be made between one urban centre and another, and between the population for an urban centre at one census with the population at succeeding censuses.

When delimiting urban centres of less than 25,000 population the urban centres are to be delimited subjectively (by the inspection of aerial photographs, by field inspection and/or by consideration of any other information that is available). All continuous urban growth is to be included (which in small urban centres would not necessarily occur if the density criterion were applied), together with close but non-contiguous development which could be clearly regarded as part of the centre.

Around Adelaide (and all other urban centres with a population of at least 100,000) two boundaries have been defined. The outer one, which is fixed, circumscribes the area in close economic and social contact with the main city, and which contains the anticipated urban development of the city for a period of at least twenty to thirty years. This boundary defines the Adelaide Statistical Division (see map on page 113). The inner boundary indicates the area which, at the time of the census, meets the criteria for urban areas described above. As urbanisation proceeds, this boundary will move outwards to encompass peripheral development. This boundary defines Urban Adelaide which at the 1966



Census contained nearly all the metropolitan area as defined at the 1961 Census, and, in addition, included the City of Elizabeth and large portions of the Cities of Salisbury and Tea Tree Gully, and small parts of Munno Para and East Torrens District Councils. Results of the 1971 Census indicate that Urban Adelaide has extended to encompass the whole of the urban area of Reynella-Port Noarlunga and fringe development particularly in northern suburbs (see map on page 113).

At the 1971 Census 809,482 persons (68.97 per cent of the State population) lived in Urban Adelaide, and a further 183,187 (15.61 per cent) were in other urban areas; this is a continuance of the trend of increased urbanisation in South Australia.

In 1921 the rural population was 195,054 and at that time represented 39.4 per cent of the total population (42.1 per cent of males and 36.7 per cent of females). There were 214,762 persons classified as living in rural areas at the 1933 Census but the total had fallen slightly to 200,065 in 1961, and the proportion of the total population was down to 20.6 per cent (21.7 per cent of males and 19.6 per cent of females). Further falls occurred during 1961-66 and 1966-71. The total rural population was 190,167 persons at 30 June 1966, and the proportion of the total population had fallen further to 17.4 per cent. Figures for the 1971 Census again show a decline in the rural population to 15.3 per cent (16.1 per cent of males and 14.4 per cent of females).

Urban and Rural Population, South Australia^(a)
Censuses 1921 to 1971

Census	Urban				Rural		Total (including Migratory)	
	Adelaide (b)		Other (c)		Number	Per Cent	Number	Per Cent
	Number	Per Cent	Number	Per Cent				
1921.....	255,375	51.57	41,637	8.41	195,054	39.39	495,160	100.00
1933.....	312,619	53.81	51,456	8.86	214,762	36.97	580,949	100.00
1947.....	382,454	59.20	65,911	10.20	196,007	30.34	646,073	100.00
1954.....	483,508	60.66	110,107	13.82	201,133	25.23	797,094	100.00
1961.....	587,957	60.66	177,380	18.30	200,065	20.64	969,340	100.00
1966.....	(b)728,279	66.51	174,964	15.98	190,167	17.37	1,094,984	100.00
1971.....	809,482	68.97	183,187	15.61	179,148	15.26	1,173,707	100.00

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

(b) Before 30 June 1966 Urban Adelaide comprised twenty-one municipalities. From 30 June 1966 new criteria, based mainly on population density were adopted for all capital cities; the boundary for Adelaide was extended at the 1966 Census to embrace new areas including Elizabeth, Salisbury and Tea Tree Gully and at the 1971 Census to include urban Reynella-Port Noarlunga.

(c) 'Other urban' up to the 1947 Census comprised all municipalities outside Urban Adelaide. For the 1954 and 1961 Censuses non-municipal towns of 1,000 or more persons were also included, but in 1961 municipalities of less than 1,000 persons were excluded. The 1966 and 1971 figures comprised clusters of 1,000 or more persons; included also were four centres namely Goolwa, Port Elliot, Port Broughton and Port MacDonnell which, although having a population of less than 1,000, were regarded as urban on a dwelling density basis.

For statistical purposes the State is divided into nine statistical divisions, most of which are further divided into subdivisions, as described on page 105 and shown on the map inside the back cover of this volume. The population of each division and subdivision at the 1966 Census, and the 1971 Census and estimates for the intervening years are shown in the following table.

Population of Statistical Divisions and Subdivisions, South Australia

Statistical Division and Subdivision	Population at 30 June					
	1966	1967	1968	1969	1970	1971
Adelaide:						
City	18,619	18,000	17,450	17,350	16,800	16,313
Inner Western	25,992	25,600	25,150	25,050	24,850	24,351
Inner Eastern	100,939	100,200	99,650	99,150	99,400	99,171
North Eastern Suburban	91,544	97,000	100,900	105,050	111,500	117,640
Eastern Suburban	81,779	83,650	85,250	86,900	88,500	89,681
South Eastern Hills	62,017	62,800	63,650	64,850	66,150	67,793
South Western Coastal	107,274	109,250	111,600	115,550	119,900	124,673
Western Suburban	72,820	74,000	74,850	76,550	78,250	79,248
North Western Suburban	135,927	134,200	133,100	133,150	133,200	132,403
Para	74,684	79,750	83,450	86,050	88,300	91,420
Total Adelaide	771,595	784,450	795,000	809,650	826,850	842,693
Central:						
Central Plains	21,569	21,300	21,150	20,850	20,750	20,464
Yorke	11,728	11,550	11,300	11,150	11,000	10,731
Total Central	33,297	32,850	32,450	32,000	31,750	31,195
Kangaroo Island	3,375	3,300	3,300	3,200	3,200	3,156
Mount Lofty Ranges:						
Northern Ranges	21,852	21,750	21,600	21,650	21,650	21,447
Southern Ranges	30,561	30,550	30,500	30,500	30,550	30,384
Total Mount Lofty Ranges	52,413	52,300	52,100	52,150	52,200	51,831
Murray:						
Upper Murray	31,802	31,700	31,750	31,650	31,600	31,359
Lower Murray	17,984	18,250	18,550	18,750	18,850	18,839
Mallee	7,597	7,400	7,250	7,150	6,950	6,756
Total Murray	57,383	57,350	57,550	57,550	57,400	56,954
South East:						
Upper South East	20,724	20,700	20,700	20,750	20,850	20,691
Lower South East	36,880	36,850	36,950	37,150	37,300	37,290
Total South East	57,604	57,550	57,650	57,900	58,150	57,981
Eyre:						
Upper Eyre	8,180	8,250	8,450	8,750	9,000	9,009
Lower Eyre	20,820	20,750	20,800	20,850	20,900	20,802
Total Eyre	29,000	29,000	29,250	29,600	29,900	29,811
Northern:						
Spencer	61,628	64,200	66,700	69,150	71,200	72,499
Frome	12,925	12,550	12,300	12,100	11,950	11,720
Total Northern	74,553	76,750	79,000	81,250	83,150	84,219
Far North	14,190	14,650	13,850	14,300	13,650	13,977
Migratory (a)	1,574	1,600	1,650	1,700	1,750	1,890
Total State	1,094,984	1,109,800	1,121,800	1,139,300	1,158,000	1,173,707

(a) Persons on ships in port and travelling on long-distance public transport.

NOTE: For intercensal years (1967-1970) figures have been further revised in accordance with final results of the 1971 Census.

Population in and near Adelaide

Urban Adelaide as defined for the 1971 Census comprises twenty complete local government areas and part of each of seven others. Of these, nineteen have been proclaimed as cities, the latest being Henley and Grange which was officially declared to be a city from 11 June 1970.

Qualification for city status within the metropolitan local government areas (as defined in the Local Government Act) is dependent on the population reaching 15,000 persons, but a subsequent fall in population below this level (as has occurred in the City of Kensington and Norwood) does not bring loss of city status.

Over the last two decades there has been a considerable fall in the population of the City of Adelaide, and lesser falls in all of the older municipalities close

to the city, namely Prospect, Hindmarsh, Thebarton, Unley, Kensington and Norwood and St Peters. The greatest proportionate increases in population have occurred in the local government areas of Munno Para, Salisbury, Elizabeth, Enfield (generally north of the city); Campbelltown and Tea Tree Gully (north-east); Marion, Brighton and Noarlunga (south-west).

Although figures for Urban Adelaide, defined according to the density criteria, are not available for the 1947 and 1954 Censuses, there appears to have been a continual increase in the proportion of the total population residing in Urban Adelaide.

At the 1961 Census, the population of Urban Adelaide defined according to the new density criteria is estimated to have been 580,449 persons or 59.9 per cent of the total State population and this figure had increased to 728,279 (66 per cent) at the Census, 30 June 1966.

After the 1966 Census the gap in development between Urban Adelaide and urban Reynella-Port Noarlunga so narrowed as to enable these two areas to be regarded as contiguous at the 1971 Census. This amalgamation, together with the inclusion of further peripheral development, has resulted in an increase to 809,482 persons (69 per cent of the State population).

In addition to Urban Adelaide there are two urban centres within the Adelaide Statistical Division, urban Gawler with a population of 6,959 persons at the 1971 Census and urban Crafers-Bridgewater with a population of 5,308 persons.

Population, Adelaide Statistical Division^(a)

Local Government Area	Census 30 June 1961	Census 30 June 1966	Census 30 June 1971
Adelaide (C)	23,051	18,619	16,313
Brighton (C)	20,337	22,638	22,583
Burnside (C)	36,266	38,776	39,339
Campbelltown (C)	20,945	32,083	37,942
Colonel Light Gardens (M)	3,671	3,404	3,369
East Torrens (DC)	3,664	3,822	4,202
Elizabeth (C)	(b)	32,956	33,389
Enfield (C)	72,427	80,336	(c) 77,435
Gawler (M)	5,639	5,703	5,495
Glenelg (C)	14,492	14,763	15,237
Henley and Grange (C)	11,680	14,146	16,128
Hindmarsh (M)	12,914	11,367	10,306
Kensington and Norwood (C)	13,476	11,943	11,081
Marion (C)	58,464	66,984	67,572
Meadows (DC) (part)	2,242	2,824	5,128
Mitcham (C)	43,122	49,485	54,377
Mudla Wirra (DC) (part)	111	155	186
Munno Para (DC)	3,154	14,279	20,179
Noarlunga (DC)	5,492	14,214	28,464
Payneham (C)	14,930	16,847	17,543
Port Adelaide (C)	38,923	39,846	38,968
Prospect (C)	22,184	21,415	20,934
Salisbury (C)	35,715	35,766	56,279
Stirling (DC)	7,075	7,552	8,359
St Peters (M)	11,727	11,339	10,675
Tea Tree Gully (C)	5,887	21,315	36,708
Thebarton (M)	12,884	12,303	11,831
Unley (C)	40,280	39,735	39,928
Walkerville (M)	4,464	4,593	(c) 7,208
West Torrens (C)	40,681	46,233	50,097
Willunga (DC) (part)	2,210	2,190	2,614
Woodville (C)	71,039	73,930	72,806
Not incorporated	—	—	(d) 18
Total	659,146	771,561	842,693

(a) Excludes full-blood Aborigines before 30 June 1966.

(b) Elizabeth (C) was constituted out of Salisbury (C) in July 1964.

(c) Comparisons with previous censuses is affected by transfer in July 1970 of the suburb of Vale Park (approx. 2,200 persons) from Enfield (C) to Walkerville (M).

(d) Torrens and Garden Islands included in Adelaide Statistical Division subsequent to 1966 Census.

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

Population Beyond the Adelaide Statistical Division

Whereas in each of the eastern States, New South Wales, Victoria and Queensland, there are at least four centres outside the capital city with a population of more than 20,000 persons, there is only one in South Australia. This centre, Whyalla, had a population of 32,109 persons at the Census, 30 June 1971, making it the largest centre outside Urban Adelaide.

Early expansion of Whyalla was a direct consequence of it being the closest port to the rich iron ore deposits at Iron Knob, Iron Baron and Iron Monarch. Whyalla's population increased with the establishment of a ship-building yard—Australia's largest—in 1940. As ship-building activities have expanded the population has steadily increased. Growth was accelerated by the construction of a modern steel-making plant which began production in February 1965. The population of Whyalla at the Census, 1961 was 13,711 persons; in the following five years it had grown to 22,131 and at the 1971 Census was 32,109.

At the 1971 Census there were only three other urban centres outside of the Adelaide Statistical Division with population in excess of 10,000 persons. These were Mount Gambier (17,934 persons), the centre of the rich and fertile south-eastern portion of the State, Port Pirie (15,456 persons), the most convenient port for shipping the rich silver-lead-zinc production of Broken Hill (N.S.W.) and Port Augusta (12,224 persons), situated at the head of Spencer Gulf. Growth or decline of these and other urban centres outside the Adelaide Statistical Division between 1966 and 1971 can be seen from the following table.

Population of Urban Centres: South Australia, Censuses 1966 and 1971^(a)

Urban Centre	Census		Urban Centre	Census	
	June 1966	June 1971 (b)		June 1966	June 1971 (b)
Angaston	1,887	1,813	Mount Barker	1,934	2,475
Balaklava	1,199	1,114	Mount Gambier ..	17,261	17,934
Barmera	1,490	1,687	Murray Bridge	6,444	7,441
Berri	2,232	2,713	Naracoorte.....	4,380	4,429
Bordertown	1,759	1,979	Nuriootpa	2,041	2,468
Burra	1,342	1,276	Penola.....	1,383	1,293
Ceduna	1,457	2,070	Peterborough	3,117	3,023
Clare	1,582	2,099	Port Augusta	10,457	12,224
Cooper Pedy	(c)	1,394	Port Broughton ..	418	488
Crystal Brook	1,235	1,181	Port Elliot	565	566
Goolwa	561	681	Port Lincoln	8,912	9,158
Jamestown	1,392	1,331	Port MacDonnell ..	531	585
Kadina	3,022	2,828	Port Pirie	15,567	15,456
Kapunda	1,119	1,261	Quorn	(c) 900	1,008
Keith	1,097	1,212	Renmark.....	3,054	3,278
Kingscote	1,071	1,011	Strathalbyn.....	1,449	1,535
Kingston (S.E.)	1,065	1,173	Tailem Bend	1,952	1,982
Lobethal	1,098	1,377	Tanunda	1,986	1,939
Loxton	2,420	2,663	Victor Harbor	3,142	3,527
Maitland	1,017	1,020	Waikerie	(c) 989	1,252
Mannum	2,034	2,043	Wallaroo.....	2,113	2,097
Millicent	4,539	5,075	Whyalla	22,131	32,109
Moonta.....	1,702	1,570	Woomera-Maralinga	4,749	4,082

(a) Outside Adelaide Statistical Division. For definition of 'urban' see page 112.

(b) Boundaries of a number of urban centres have been redrawn to encompass all areas of urban development; consequently comparability with 1966 figures is affected and generally greater increases are indicated than have occurred.

(c) Non-urban in 1966. Where an urban centre at the 1971 Census was non-urban at the 1966 Census, figures for both Censuses (where available) have been shown for comparison.

Outside the Adelaide Statistical Division there are five municipalities which have been proclaimed as cities (Whyalla, Mount Gambier, Port Pirie, Port Augusta and Port Lincoln). Although there are no other towns of city size there are a number of smaller municipalities with a population of about 3,000 or more. Growth of these towns since the 1947 Census is shown in the next table.

Population of Municipalities, South Australia^(a)

Municipality	Statistical Division	Census 30 June				
		1947	1954	1961	1966	1971
Mount Gambier	South East	6,771	10,331	15,388	17,261	17,386
Murray Bridge	Murray	3,690	4,362	5,404	5,958	6,709
Naracoorte	South East	2,202	3,329	4,410	4,380	4,429
Peterborough	Northern	2,890	3,437	3,430	3,117	3,023
Port Augusta	Northern	4,351	6,704	9,711	10,132	12,224
Port Lincoln	Eyre	3,972	5,871	7,508	8,912	9,158
Port Pirie	Northern	12,019	14,223	14,003	13,965	13,227
Renmark	Murray	4,832	5,484	6,070	6,275	6,333
Whyalla	Northern	7,845	8,598	13,711	21,281	31,570

(a) Excludes full-blood Aborigines before 30 June 1966.

PROJECTIONS OF THE POPULATION

This section contains summary results of a series of projections of the population of South Australia using 1970 as the base year. The results have been arbitrarily adjusted to take account of the preliminary results of the 1971 Census of population.

Projections are sometimes distinguished from forecasts on the basis that the former are extrapolations of existing populations assuming the continuance of past trends of births, deaths, and migration. Forecasts may also take into account expectations of trends in other factors such as employment opportunities, government policy or technological advance. Neither projections nor forecasts should be expected to accord consistently with actual future events. Projections are useful for the study of the demographic forces at work and of their likely consequences. Forecasts, often developed from projections, are required for the planning of government services, industrial and economic policy, and many other purposes.

The method chosen for these projections is similar to the method used for the current estimates of the population except that hypothetical figures of births, deaths and net migration are used instead of recorded births, deaths and net migration. Projections are made of the population in a *base* year, classified by age and sex, by the application of age-specific fertility and mortality rates one year at a time. Separate projections of the population resulting from assumed future annual net migration are made in a similar fashion. To obtain the projected total population the two parts are added together. As migration can vary widely, the tables are presented in such a form that other projections may be made using alternative assumptions as to future annual intake.

The assumptions employed in the latest set of projections are given below. They cover the years 1972 to 2000, taking 1970 as the base year.

Fertility

For the projections of base year populations, the age-specific birth rates and the masculinity of births recorded in South Australia in 1970 were used for all future years. Additional female population resulting from future migration was assumed to experience the age-specific birth rates and masculinity of births recorded in 1970 for *Australia as a whole*.

Mortality

It was assumed that the average age-specific mortality rates recorded in South Australia in the three years 1965 to 1967, related to the 1966 Census population, would remain unchanged. The projected deaths for Australia are the sum of the projected deaths for each State and Territory. Deaths of persons in the migration component are projected on the basis of the *Australian* 1965-67 mortality experience.

Migration

The age-sex composition of all future net interstate and/or overseas migration was assumed to be the average age-sex distribution of the net overseas migration (excess of total arrivals over total departures) recorded for Australia as a whole for the five years ended 30 June 1970.

It has been assumed that the future migration component for South Australia will be subject for the whole of the projection period, to the same age-specific fertility and mortality rates as experienced by the Australian population as a whole in 1970 (fertility) and 1965-67 (mortality), regardless of the State or Territory to which the people move, or the State, Territory or country whence they came.

Population Projections, South Australia

At 30 June	Population exclusive of overseas or interstate migration after 30 June 1970		Extra population resulting from net migration of 1,000 persons per annum (a)	
	Males	Females	Males	Females
1972.....	591,600	592,000	1,100	950
1973.....	598,400	599,200	1,670	1,450
1974.....	605,400	606,600	2,260	1,960
1975.....	612,600	614,200	2,860	2,480
1980.....	651,100	655,100	6,050	5,300
1985.....	691,600	698,400	9,560	8,420
1990.....	730,500	740,600	13,370	11,860
1995.....	767,600	781,000	17,500	15,630
2000.....	806,500	822,600	21,950	19,750

(a) The projected net gain from migration resulting from sustained net migration at any other level may be calculated *pro rata* from figures in this column.

Population Projections, South Australia

At 30 June	Population inclusive of net migration at levels of:				
	2,000 persons a year	4,000 persons a year	6,000 persons a year	8,000 persons a year	10,000 persons a year
1972.....	1,187,700	1,191,800	1,195,900	1,200,000	1,204,100
1973.....	1,203,800	1,210,000	1,216,300	1,222,500	1,228,700
1974.....	1,220,400	1,228,800	1,237,300	1,245,700	1,254,100
1975.....	1,237,500	1,248,200	1,258,900	1,269,500	1,280,200
1980.....	1,328,900	1,351,600	1,374,300	1,397,000	1,419,700
1985.....	1,426,000	1,461,900	1,497,900	1,533,800	1,569,800
1990.....	1,521,600	1,572,100	1,622,500	1,673,000	1,723,400
1995.....	1,614,900	1,681,200	1,747,400	1,813,700	1,879,900
2000.....	1,712,600	1,796,000	1,879,400	1,962,800	2,046,200

The following table showing the levels of annual average net migration since 1951 indicates the magnitude of net migration fluctuations in recent years in South Australia.

Net Migration, South Australia

Period ended 30 June	Males	Females	Persons
Annual Average:			
1951-55	6,258	4,952	11,210
1956-60	6,570	6,414	12,984
1961-65	5,253	5,658	10,911
1966-70	2,732	3,452	6,184
Year:			
1966.....	7,327	8,011	15,338
1967.....	1,355	2,364	3,719
1968.....	—41	694	653
1969.....	2,327	2,841	5,168
1970.....	2,693	3,348	6,041
1971.....	507	1,801	2,308

5.3 BIRTHS AND DEATHS

Compulsory registration of births and deaths was first provided in South Australia in 1842 when an Act 'for registering Births, Deaths and Marriages in the Province of South Australia' was passed. Current legislation is contained in the Births, Deaths and Marriages Registration Act, 1966-1972 which came into operation on 1 January 1968 and the administration of the Act is the responsibility of the Principal Registrar of Births, Deaths and Marriages. For registration purposes the State is divided into twenty-two registration districts each of which has a registry office in the charge of a District Registrar.

The Principal Registrar maintains a register of all live births and of all deaths registered in the State and each District Registrar maintains, in a register, duplicate copies of the registrations of births and deaths which occurred in the district under his jurisdiction. Up to the end of 1967 separate registers were kept of still births, which were not included in the registration or statistics of either live births or of deaths. Compulsory registration of still births was introduced in South Australia in 1937.

The current legislation does not require the Principal Registrar to maintain a register of still births, but it provides for a 'Medical Certificate of Cause of Perinatal Death' to be filled in and forwarded to the Principal Registrar by the attending medical practitioner in respect of a 'child not born alive'. The 'perinatal' certificates are also required from attending medical practitioners for children dying within twenty-eight days of birth.

The birth of each live-born child is required to be registered by a parent within sixty days of the date of birth. Registration of a live birth after the expiration of sixty days following the date of birth requires also the payment of a fee and a declaration in a form prescribed by the Act.

A death is required to be registered within fourteen days of the date of death by the occupier of the building or place in which the death occurred. Special provisions and penalties exist for the late registration of a death. A body may not be buried unless the undertaker is in possession of a 'Notice of signing of Medical Certificate of Cause of Death' signed by a medical practitioner or of an order by a coroner for burial, and the undertaker is required within seven days of the disposal of the body to notify the Principal Registrar of such disposal.

Births and deaths of Aborigines when registered are incorporated in registers, but to the end of 1965 have been excluded from statistics where there was definite indication that they were of full-blood. Statistics of births and deaths for 1966 and subsequent years cover all registrations.

In accordance with international practice, statistics for a period are on the basis of the births and deaths which were registered during that period. However, numbers registered in a period usually differ from the number of occurrences in the same period and, mainly because of the longer period allowed for registration, such variations generally are more apparent in birth than in death figures.

BIRTHS

The South Australian birth rate per thousand of the mean population was above 45 in the late 1850s then declined generally to 23.8 in 1903 before improving gradually to reach nearly 29 in 1914. The subsequent war years brought about a further decline and except for a temporary revival in 1920 and 1921 the rate continued to fall to 14.1 in 1935, the lowest on record. From that time there was a steady upward trend climaxing with a rate of 25.2 in 1947. A reversal in trend followed with the lowest post-war rate of 18.4 being recorded in 1967 and again in 1972. The South Australian rate in 1972 was well below the Australian rate of 20.4 and lower than the rate in any other State.

The following table, shows the live birth rate, the masculinity of live births and the totals and rates of still births and also a comparison between the births which actually occurred and those registered for the last ten years.

Live Births and Still Births, South Australia^(a)

Year	Total Live Births Occurred (b)	Births Registered						
		Live-born					Still-born	
		Total	Rate (c)	Males	Females	Masculinity (d)	Total	Rate (e)
1963.....	21,215	21,367	21.20	11,006	10,361	106.23	262	12.11
1964.....	20,836	20,866	20.16	10,849	10,017	108.31	252	11.93
1965.....	20,793	20,891	19.63	10,778	10,113	106.58	256	12.11
1966.....	20,319	20,362	18.61	10,556	9,806	107.65	237	11.51
1967.....	20,452	20,386	18.37	10,402	9,984	104.19	211	10.24
1968.....	21,217	21,207	18.89	10,949	10,258	106.74	(f) 217	10.13
1969.....	21,985	21,977	19.28	11,262	10,715	105.10	208	9.38
1970.....	22,578	22,617	19.52	11,555	11,062	104.46	200	8.77
1971.....	22,728	22,996	19.55	11,797	11,199	105.34	199	8.58
1972.....	20,989	21,844	18.37	11,299	10,545	107.15	173	7.86

(a) Where identified in registrations births of full-blood Aborigines have been excluded before 1966.

(b) Figures are subject to the addition of a few very late registrations. (c) Per 1,000 of mean population. (d) Number of male births per 100 female births. (e) Per 1,000 of all births (live and still). (f) Figures from 1968 derived from perinatal death certificates.

Ex-nuptial Births and Legitimations

The ex-nuptial birth rate was about 3 per 100 from the early 1920s until the late 1950s, but has more than doubled since 1959 when the rate was 3.66. Except for falls in 1967 and 1969 the rates for 1963 to 1972 were successively the highest recorded.

The legitimation of an ex-nuptial child upon the subsequent marriage of the parents which was first provided for in South Australia by the Legitimation Act, 1898, the provisions of which were later incorporated in the Births and Deaths Registration Act, was possible only if there was no legal impediment to the marriage of the parents at the time of the birth of the child. The Commonwealth *Marriage Act* 1961-1966, which came into operation on 1 September 1963, provides for the legitimation of a child upon the subsequent marriage of the parents whether or not there was a legal impediment to the marriage at the time of the birth of the child. Legitimations under this Act take place whether or not the child was living at the time of marriage, and the child is considered legitimate from the date of birth or, in the case of a child born before 1 September 1963, at that date.

Ex-nuptial Live Births and Legitimations, South Australia

Year	Ex-nuptial Live Births		Legitimations
	Number	Rate per 100 Births	
1968.....	1,558	7.35	240
1969.....	1,508	6.86	260
1970.....	1,715	7.58	323
1971.....	1,782	7.75	337
1972.....	1,803	8.25	296

Confinements and Live Births

In the table below confinements in each of the years 1968 to 1971 have been shown in relation to age group of the mother and nuptiality.

Confinements: Age Group of Mother and Nuptiality, South Australia

Age Group	Number of Confinements (a)				Percentage of Total In Each Category			
	1968	1969	1970	1971	1968	1969	1970	1971
NUPTIAL CONFINEMENTS								
10-14	—	—	—	1	—	—	—	0.0
15-19	1,581	1,588	1,681	1,711	8.1	7.8	8.1	8.1
20-24	7,221	7,779	7,815	8,135	37.1	38.4	37.8	38.7
25-29	6,125	6,298	6,695	6,958	31.5	31.1	32.4	33.1
30-34	2,851	2,933	2,944	2,756	14.6	14.5	14.2	13.1
35-39	1,223	1,262	1,179	1,124	6.3	6.2	5.7	5.4
40-44	423	380	344	289	2.2	1.9	1.7	1.4
45 and over	41	29	21	19	0.2	0.1	0.1	0.1
Not stated	—	3	—	—	—	—	—	—
Total	19,465	20,272	20,679	20,993	100.0	100.0	100.0	100.0
EX-NUPTIAL CONFINEMENTS								
10-14	6	8	10	11	0.3	0.5	0.6	0.6
15-19	617	604	647	749	39.8	40.4	38.1	42.3
20-24	485	491	594	598	31.3	32.9	35.0	33.8
25-29	207	188	237	232	13.4	12.6	14.0	13.1
30-34	114	116	106	109	7.4	7.8	6.2	6.2
35-39	83	59	76	55	5.4	3.9	4.5	3.1
40-44	36	25	26	15	2.3	1.7	1.5	0.8
45 and over	1	1	1	1	0.1	0.1	0.1	0.1
Not stated	—	1	—	1	—	0.1	—	0.1
Total	1,549	1,493	1,697	1,771	100.0	100.0	100.0	100.0

(a) Includes only those confinements which resulted in one or more live births.

The next table shows the number of confinements and live births for 1970 and 1971 classified separately for single births and multiple births in which at least one issue was live-born.

Confinements and Live Births: Class of Birth, South Australia

Particulars	1970				1971			
	Confinements (a)	Live Births			Confinements (a)	Live Births		
		Male	Female	Total		Male	Female	Total
Nuptial:								
Single births	20,455	10,428	10,027	20,455	20,775	10,682	10,093	20,775
Twins	222	236	205	441	214	206	221	427
Triplets	2	5	1	6	4	11	1	12
Total nuptial ..	20,679	10,669	10,233	20,902	20,993	10,899	10,315	21,214
Ex-Nuptial:								
Single births	1,680	869	811	1,680	1,760	887	873	1,760
Twins	15	13	16	29	11	11	11	22
Triplets	2	4	2	6	—	—	—	—
Total ex-nuptial	1,697	886	829	1,715	1,771	898	884	1,782
Total	22,376	11,555	11,062	22,617	22,764	11,797	11,199	22,996

(a) Includes only those confinements which resulted in one or more live births.

In each year from 1950 to 1963 multiple confinements occurred at a rate of a little over ten per 1,000 confinements but have fallen below this level in five

of the eight years since 1963. There is a marked tendency for multiple births to be of the same sex; in 1971 there were 163 cases of twins of the same sex compared with only 62 cases of one male and one female issue.

Nuptial confinements classified according to the relative age groups of the parents, and ex-nuptial confinements classified to the age group of the mother are shown for 1971 in the following table.

Confinements: Relative Ages of Parents, South Australia, 1971^(a)

Age Group of Father (Nuptial Births)	Age Group of Mother							Total	
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over		Not Stated
Under 20	328	71	6	—	—	—	—	—	405
20-24	1,149	3,565	387	11	4	1	—	—	5,117
25-29	182	3,677	3,589	223	11	3	—	—	7,685
30-34	37	669	2,321	1,298	93	8	—	—	4,426
35-39	10	110	488	876	503	31	—	—	2,018
40-44	2	28	130	276	386	146	2	—	970
45-49	2	8	26	54	103	73	11	—	277
50 and over	2	6	11	17	24	27	6	—	93
Not stated	—	1	—	1	—	—	—	—	2
Married Mothers	1,712	8,135	6,958	2,756	1,124	289	19	—	20,993
Unmarried Mothers	760	598	232	109	55	15	1	1	1,771
Total Mothers	2,472	8,733	7,190	2,865	1,179	304	20	1	22,764

(a) Includes only those confinements which resulted in one or more live births.

The table which follows shows the number of confinements classified by duration of marriage and previous issue. Previous issue is the number of live-born children of the existing marriage born before the current confinement.

**Nuptial Confinements: Duration of Marriage and Previous Issue of Mother
South Australia, 1971**

Duration of Marriage	Number of Confinements	Previous Issue						
		0	1	2	3	4	5	6 and over
Under 1 year	2,752	2,703	44	3	2	—	—	—
1 year	2,596	2,110	465	19	2	—	—	—
2 years	2,810	1,515	1,205	83	5	2	—	—
3 years	2,647	896	1,470	254	19	8	—	—
4 years	2,204	480	1,180	489	53	1	—	1
5 years	1,797	253	876	560	99	9	—	—
6 years	1,401	139	536	526	161	34	4	1
7 years	1,012	81	257	459	173	36	5	1
8 years	788	60	161	337	163	54	10	3
9 years	593	30	74	236	156	63	23	11
10 years	528	19	77	188	142	67	24	11
11 years	395	16	44	122	117	55	26	15
12 years	297	8	32	80	94	49	23	11
13 years	246	9	20	58	72	35	27	25
14 years	210	6	14	50	56	43	18	23
15 years and over	693	22	47	104	147	114	98	161
Not stated	24	3	4	5	4	2	2	4
Total	20,993	8,350	6,506	3,573	1,465	572	260	267

Since 1964 the number of nuptial first live births has risen steadily from 6,552 to 8,350 in 1971, an increase from 33.7 per cent of all nuptial confinements in 1964 to 39.8 per cent. However, the number of mothers having their fourth or subsequent child has fallen in the same period from 4,154 to 2,564, a decrease from 21.4 per cent to 12.2 per cent of all nuptial confinements. This decrease is related to the sharper decline in the age-specific birth-rate for women over thirty years of age and is partly because of the decrease in the proportion of the female population in the 30-39 age group.

The following table illustrates a trend, which has been apparent since 1964, towards a longer period after marriage before the birth of the first child. In particular, there has been a decrease in the percentage of nuptial first live births to women who had been married less than two years, from 68.39 per cent in 1964 to 57.64 per cent in 1971. A corresponding increase is evident in the two to four years duration of marriage groups; from 22.95 per cent to 34.62 per cent.

Only existing marriages are taken into account, therefore some inclusions in the table relate to the first birth of an existing marriage to a mother who has had a child or children by a previous marriage.

Nuptial First Live Births: Duration of Marriage of Parents
South Australia

Duration of Marriage	Nuptial First Live Births				Percentage of Total			
	1968	1969	1970	1971	1968	1969	1970	1971
Under 5 months	635	660	698	703	8.58	8.36	8.58	8.42
5 months	527	517	563	566	7.12	6.55	6.92	6.78
6 months	519	593	537	497	7.01	7.51	6.60	5.95
7 months	182	195	199	175	2.46	2.47	2.45	2.10
8 months	141	146	143	124	1.91	1.85	1.76	1.49
9 months	291	255	269	216	3.93	3.23	3.30	2.59
10 months.....	255	240	228	212	3.45	3.04	2.80	2.54
11 months.....	207	197	222	210	2.80	2.50	2.73	2.52
Total under 1 year.	2,757	2,803	2,859	2,703	37.26	35.51	35.14	32.37
1 year	1,823	1,976	1,972	2,110	24.64	25.04	24.24	25.27
2 years	1,274	1,258	1,384	1,515	17.22	15.94	17.01	18.14
3 years	647	834	844	896	8.75	10.57	10.38	10.73
4 years	329	455	461	480	4.45	5.76	5.67	5.75
5 years	178	205	231	253	2.41	2.60	2.84	3.03
6 years	125	104	111	139	1.69	1.32	1.36	1.66
7 years	85	70	79	81	1.15	0.89	0.97	0.97
8 years and over	174	182	190	170	2.35	2.31	2.34	2.04
Not stated	6	5	4	3	0.08	0.06	0.05	0.04
Total	7,398	7,892	8,135	8,350	100.00	100.00	100.00	100.00

DEATHS

The following table shows the number of deaths and death rates per 1,000 of the mean population since 1935.

Deaths and Death Rates, South Australia^(a)

Period	Number of Deaths			Death Rate ^(b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
1935-39 (c)	2,929	2,501	5,430	9.89	8.47	9.19
1940-44 (c)	3,348	2,887	6,235	11.07	9.43	10.25
1945-49 (c)	3,389	2,980	6,369	10.48	9.12	9.80
1950-54	3,832	3,191	7,023	10.06	8.56	9.31
1955-59	4,248	3,430	7,678	9.62	7.97	8.80
1960-64	4,585	3,607	8,192	9.19	7.36	8.29
1965-69	5,172	4,119	9,291	9.32	7.47	8.40
Year:						
1968	5,555	4,361	9,916	9.87	7.79	8.83
1969	5,207	4,130	9,337	9.13	7.25	8.19
1970	5,576	4,562	10,138	9.63	7.87	8.75
1971	5,310	4,376	9,686	9.04	7.43	8.23
1972	5,477	4,287	9,764	9.23	7.19	8.21

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Per 1,000 of mean population. (c) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September 1939 to June 1947.

Male and female deaths in selected age groups for each of the three years 1969 to 1971 are shown in the following table.

Deaths in Age Groups, South Australia

Age Group	Males			Females			Persons		
	1969	1970	1971	1969	1970	1971	1969	1970	1971
Under 1 year	205	226	204	142	141	162	347	367	366
1-4	44	42	41	31	25	26	75	67	67
5-9	32	29	21	27	16	18	59	45	39
10-14	27	23	19	15	23	9	42	46	28
15-19	57	82	85	26	29	42	83	111	127
20-24	55	80	77	21	19	36	76	99	113
25-29	46	44	41	19	20	27	65	64	68
30-34	55	48	54	21	29	35	76	77	89
35-39	69	74	72	47	45	37	116	119	109
40-44	127	130	105	71	74	66	198	204	171
45-49	203	222	188	93	116	98	296	338	286
50-54	268	323	259	132	135	154	400	458	413
55-59	442	483	455	215	208	191	657	691	646
60-64	538	578	517	253	318	266	791	896	783
65-69	616	669	642	366	402	374	982	1,071	1,016
70-74	666	728	726	489	544	537	1,155	1,272	1,263
75-79	693	723	674	713	767	674	1,406	1,490	1,348
80-84	576	621	612	722	802	715	1,298	1,423	1,327
85 and over	488	451	518	727	849	909	1,215	1,300	1,427
Total deaths ..	5,207	5,576	5,310	4,130	4,562	4,376	9,337	10,138	9,686

A long established trend of increases in deaths at the higher ages has been offset to some degree by a decrease in those in the younger age groups. The effect of this trend related to the changes in age distribution of the population

is illustrated in the next tables, which show age-specific death rates, *i.e.* deaths in each age group expressed as a rate per 1,000 of the population in that age group. Because age constitution of the population is known accurately only at censuses the periods shown are those with a census date as their centre.

Age-Specific Death Rates: Males, South Australia^(a)

Age Group	Death Rate (b)							
	1880-82	1900-02	1920-22	1932-34	1946-48	1953-55	1960-62	1965-67
0-4	51.85	32.12	19.98	9.90	8.09	6.41	5.82	4.65
5-9	3.33	2.81	2.33	1.18	1.00	0.52	0.50	0.45
10-14	2.59	1.85	1.55	1.08	0.68	0.65	0.46	0.55
15-19	4.48	2.88	2.41	1.69	1.42	1.50	1.08	1.19
20-24	4.85	4.19	3.47	2.35	1.44	1.88	1.37	1.33
25-29	6.32	5.16	3.67	2.51	1.59	1.70	1.59	1.34
30-34	7.51	5.30	3.97	2.51	1.88	1.57	1.62	1.13
35-39	9.00	6.77	5.12	3.23	2.41	2.29	2.08	2.23
40-44	12.25	8.50	6.10	4.73	3.63	3.56	3.43	3.27
45-49	16.10	10.26	8.37	6.82	6.12	5.48	5.44	5.71
50-54	17.29	14.19	11.58	9.82	10.74	10.16	9.24	9.57
55-59	25.28	20.74	18.99	15.11	16.28	15.71	15.75	15.94
60-64	31.77	30.23	26.02	24.98	26.08	24.33	24.39	26.65
65-69	46.67	47.24	41.62	36.14	40.08	39.31	37.84	40.50
70-74	63.52	64.27	62.49	57.07	60.79	62.59	59.47	63.67
75-79	92.49	89.66	105.50	92.60	97.69	94.55	88.56	90.57
80-84	138.02	140.35	158.90	147.86	145.56	141.64	135.85	138.24
85 and over	247.47	246.96	269.50	257.03	248.89	235.84	227.39	228.66
All ages	15.76	12.03	10.75	9.29	10.87	9.80	9.00	9.15

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1965.

(b) Average annual number of deaths per 1,000 of population at ages shown.

Age-Specific Death Rates: Females, South Australia^(a)

Age Group	Death Rate (b)							
	1880-82	1900-02	1920-22	1932-34	1946-48	1953-55	1960-62	1965-67
0-4	45.36	27.20	16.29	8.29	7.12	5.01	3.93	3.50
5-9	3.28	2.02	2.30	1.04	0.54	0.45	0.35	0.33
10-14	2.49	1.64	1.32	0.88	0.38	0.42	0.30	0.30
15-19	4.16	3.47	2.71	1.25	0.75	0.52	0.37	0.45
20-24	5.59	4.16	2.91	2.36	1.04	0.63	0.58	0.46
25-29	8.01	5.00	3.95	2.73	1.65	0.85	0.70	0.53
30-34	7.67	5.66	4.18	2.66	1.91	0.99	0.96	0.87
35-39	10.29	6.90	5.27	3.85	2.03	1.79	1.33	1.14
40-44	9.76	7.85	4.99	4.10	3.48	2.56	1.80	2.12
45-49	11.65	8.20	6.42	5.80	4.59	3.65	3.03	3.29
50-54	13.09	10.83	9.18	8.06	7.09	5.88	5.22	5.00
55-59	14.86	14.08	10.65	11.24	10.33	9.04	7.82	7.58
60-64	24.30	20.45	18.07	17.68	14.97	14.06	12.74	12.82
65-69	36.27	35.51	33.15	27.16	25.22	23.01	21.05	20.40
70-74	53.10	53.80	46.20	42.19	42.17	40.35	35.52	35.35
75-79	93.21	87.96	83.56	75.53	72.07	72.20	58.28	60.77
80-84	94.83	126.07	131.63	121.15	121.57	109.92	108.61	100.48
85 and over	161.90	222.58	232.84	233.59	214.35	215.80	199.38	183.83
All ages	13.97	10.25	9.00	8.23	9.19	8.31	7.38	7.41

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1965.

(b) Average annual number of deaths per 1,000 of population at ages shown.

Over the period there was a marked reduction in death rates with greater reduction in female than in male rates in almost every age group.

CAUSES OF DEATH

The classification of causes of deaths in Australia since 1907 has been based on International Lists of Causes of Deaths (ICD). From time to time revisions to these lists have affected the comparability of the figures. Up to 1949 the effect of these revisions had been negligible but the introduction in 1950 of the Sixth Revision of the ICD introduced major changes which, together with the adoption of more flexible rules for selecting the underlying cause where certificates of cause of death showed more than one cause, affected the comparability of figures for years before 1950 with those for 1950 and later. A complete classification of causes of deaths for each State and Territory of Australia for 1950 according to both the Fifth and Sixth Revisions was published by the Commonwealth Statistician in Demography 1950, Bulletin No. 68. The Seventh Revision adopted in Australia in 1958 did not affect comparability significantly.

The Eighth Revision brought into use in Australia in 1968 provided a few changes to the structure of the tabular list, e.g. the transferring of cerebrovascular diseases from the section covering diseases of the nervous system and sense organs to that covering diseases of the circulatory system. Comparability has not been affected greatly by the changes with the exception of the categories within the section now entitled 'Certain Causes of Perinatal Morbidity and Mortality'—the Seventh Revision title was 'Certain Diseases of Early Infancy'. Seventh Revision classification in this section was related to the condition in the infant whereas the Eighth Revision provides primarily for classification wherever possible to maternal diseases or conditions or to the circumstances of the birth rather than to the resultant condition in the infant. ICD Eighth Revision code numbers have been shown where appropriate in the tables which follow.

In the following table deaths registered in 1971 are shown classified according to the abbreviated list of the Eighth Revision together with the percentages from each cause and the rate per 10,000 of mean population.

Causes of Deaths: South Australia, 1971

Abbreviated Classification (a)	International Classification Code Number	Number of Deaths	Proportion of Total (Per cent)	Rate per 10,000 of Mean Population
3 Bacillary dysentery and amoebiasis ..	004, 006	1	0.01	0.01
4 Enteritis and other diarrhoeal.....	008, 009	21	0.22	0.18
5 Tuberculosis of respiratory system...	010-012	12	0.12	0.10
6 Other tuberculosis incl. late effects ..	013-019	8	0.08	0.07
11 Meningococcal infection	036	3	0.03	0.03
17 Syphilis and its sequelae	090-097	1	0.01	0.01
18 Other infective and parasitic diseases	{ Remainder			
	000-136	22	0.23	0.19
19 Malignant neoplasms	140-209	1,660	17.14	14.11
20 Benign and unspecified neoplasms ..	210-239	15	0.15	0.13
21 Diabetes mellitus.....	250	172	1.78	1.46
22 Avitaminoses and other nutritional deficiency	260-269	17	0.18	0.14
23 Anaemias	280-285	12	0.12	0.10
24 Meningitis	320	6	0.06	0.05
25 Active rheumatic fever	390-392	2	0.02	0.02
26 Chronic rheumatic heart disease	393-398	68	0.70	0.58
27 Hypertensive disease.....	400-404	122	1.26	1.04
28 Ischaemic heart disease	410-414	2,953	30.49	25.10
29 Other forms of heart disease.....	420-429	400	4.13	3.40

Causes of Deaths: South Australia, 1971 (continued)

Abbreviated Classification (a)	International Classification Code Number	Number of Deaths	Proportion of Total (Per cent)	Rate per 10,000 of Mean Population
30 Cerebrovascular disease	430-438	1,443	14.90	12.26
31 Influenza	470-474	3	0.03	0.03
32 Pneumonia	480-486	254	2.62	2.16
33 Bronchitis, emphysema and asthma ..	490-493	290	2.99	2.46
34 Peptic ulcer	531-533	54	0.56	0.46
35 Appendicitis	540-543	4	0.04	0.03
36 Intestinal obstruction and hernia ...	550-553, 560	53	0.55	0.45
37 Cirrhosis of liver	571	100	1.03	0.85
38 Nephritis and nephrosis	580-584	61	0.63	0.52
39 Hyperplasia of prostate	600	19	0.20	0.16
40, 41 Complications of pregnancy, child-birth and puerperium	630-678	5	0.05	0.04
42 Congenital anomalies	740-759	95	0.98	0.81
43 Birth injury, difficult labour and other anoxic and hypoxic conditions ..	{ 764-768, 772, 776 }	78	0.81	0.66
44 Other causes of perinatal mortality ..	{ 760-763, 769-771, 773-775, 777-779 }	115	1.19	0.98
45 Symptoms and ill-defined conditions ..	780-796	103	1.06	0.87
46 All other diseases	Residual	828	8.55	7.04
47 Motor vehicle accidents	E810-E823	309	3.19	2.63
48 All other accidents	{ E800-E807, E825-E949 }	231	2.38	1.96
49 Suicide and self-inflicted injuries	E950-E959	122	1.26	1.04
50 All other external causes	E960-E999	24	0.15	0.20
Total all causes		9,686	100.00	82.33

(a) No deaths were recorded in 1971 in the following categories: 1 Cholera (000), 2 Typhoid fever (001)* 7 Plague (020), 8 Diphtheria (032), 9 Whooping Cough (033), 10 Streptococcal throat and scarlet fever (034), 12 Acute Poliomyelitis (040-043), 13 Smallpox (050), 14 Measles (055), 15 Typhus and other rickettsioses (080-083), 16 Malaria (084).

The following table shows for 1971 the main causes of deaths in selected age groups.

Main Causes of Deaths: Age Groups, South Australia, 1971

International Classification Number	Age Group and Cause of Death	Deaths	Proportion of Total Deaths in Age Groups	Proportion of Total Deaths from the Specified Cause
		No.	%	%
	0-4 Years			
764-768, 772, 776	Birth injury, difficult labour, etc.	78	18.0	100.0
760-763, 769-771, 773-775, 777-779	Other perinatal causes, including maternal conditions, prematurity, etc.	115	26.6	100.0
740-759	Congenital anomalies	80	18.5	84.2
780-796	Symptoms and ill-defined conditions	37	8.5	35.9
E800-E999	Accidents, poisonings, violence	31	7.2	4.5
	Other causes	92	21.2	—
	5-14 Years			
E800-E999	Accidents, poisonings, violence	37	55.2	5.4
140-209	Malignant neoplasms	8	11.9	0.5
320-389	Diseases of nervous system and sense organs	5	7.5	4.1
740-759	Congenital anomalies	4	6.0	4.2
480-493	Pneumonia, bronchitis, emphysema, asthma	4	6.0	0.7
	Other causes	9	13.4	—

Main Causes of Deaths: Age Groups, South Australia, 1971 (continued)

International Classification Number	Age Group and Cause of Death	Deaths	Proportion of Total Deaths in Age Group		
			Proportion of Total Deaths in Age Group	Proportion of Total Deaths from the Specified Cause	
	15-24 Years		No.	%	%
E800-E999	Accidents, poisonings, violence	190	79.1	27.7	
140-209	Malignant neoplasms	17	7.1	1.0	
320-389	Diseases of nervous system and sense organs	7	2.9	5.7	
393-398, 410-429	Heart disease	5	2.1	0.1	
480-493	Pneumonia, bronchitis, emphysema, asthma	5	2.1	0.9	
	Other causes	16	6.7	—	
	25-34 Years				
E800-E999	Accidents, poisonings, violence	71	45.2	10.4	
140-209	Malignant neoplasms	26	16.6	1.6	
393-398, 410-429	Heart disease	14	8.9	0.4	
430-438	Cerebrovascular disease	8	5.1	0.6	
480-493	Pneumonia, bronchitis, emphysema, asthma	6	3.8	1.1	
	Other causes	32	20.4	—	
	35-44 Years				
140-209	Malignant neoplasms	71	25.3	4.3	
E800-E999	Accidents, poisonings, violence	59	21.1	8.6	
393-398, 410-429	Heart disease	57	20.4	1.7	
430-438	Cerebrovascular disease	20	7.1	1.4	
480-493	Pneumonia, bronchitis, emphysema, asthma	15	5.4	2.8	
	Other causes	58	20.7	—	
	45-54 Years				
393-398, 410-429	Heart disease	221	31.6	6.5	
140-209	Malignant neoplasms	211	30.2	12.7	
E800-E999	Accidents, poisonings, violence	80	11.4	11.7	
430-438	Cerebrovascular disease	53	7.6	3.7	
480-493	Pneumonia, bronchitis, emphysema, asthma	25	3.6	4.6	
571	Cirrhosis of liver	24	3.4	24.0	
	Other causes	85	12.2	—	
	55-64 Years				
393-398, 410-429	Heart disease	565	39.5	16.5	
140-209	Malignant neoplasms	341	23.9	20.5	
430-438	Cerebrovascular disease	164	11.5	11.4	
E800-E999	Accidents, poisonings, violence	71	5.0	10.4	
480-493	Pneumonia, bronchitis, emphysema, asthma	66	4.6	12.1	
250	Diabetes mellitus	29	2.0	16.9	
	Other causes	193	13.5	—	
	65-74 Years				
393-398, 410-429	Heart disease	991	43.5	29.0	
140-209	Malignant neoplasms	458	20.1	27.6	
430-438	Cerebrovascular disease	332	14.6	23.0	
480-493	Pneumonia, bronchitis, emphysema, asthma	117	5.1	21.5	
440-448	Diseases of arteries, arterioles and capillaries	69	3.0	20.8	
E800-E999	Accidents, poisonings, violence	51	2.2	7.4	
250	Diabetes mellitus	48	2.1	27.9	
	Other causes	213	9.4	—	
	75 Years and over				
393-398, 410-429	Heart disease	1,567	38.2	45.8	
430-438	Cerebrovascular disease	861	21.0	59.7	
140-209	Malignant neoplasms	516	12.6	31.1	
480-493	Pneumonia, bronchitis, emphysema, asthma	280	6.8	51.5	
440-448	Diseases of arteries, arterioles and capillaries	230	5.6	69.5	
E800-E999	Accidents, poisonings, violence	96	2.3	14.0	
250	Diabetes mellitus	86	2.1	50.0	
	Other causes	466	11.4	—	

The following sections illustrate the long-term trends in deaths and death rates from some of the main causes.

One of the factors affecting these trends has been the reduction of mortality in early childhood. This improvement has increased the number of persons reaching higher ages where the risk from degenerative diseases is greatest; consequently deaths from degenerative diseases now constitute a higher proportion of deaths than formerly.

Infectious Diseases

Deaths from certain infectious diseases over the period 1915 to 1971 are shown in the following table.

Deaths from Certain Infectious Diseases, South Australia^(a)

Period	Respiratory Tuberculosis (010-012)	Typhoid Fever (001)	Scarlet Fever (034.1)	Diphtheria (032)	Whooping Cough (033)	Acute Poliomyelitis (040-043)	Measles (055)
Annual Average:							
1915-19	339	311	4	94	21	(b)	14
1920-24	330	28	9	70	28	9	7
1925-29	313	12	2	25	13	3	12
1930-34	261	7	2	12	13	3	6
1935-39	211	4	1	27	11	6	2
1940-44	190	3	2	30	10	2	9
1945-49	161	1	1	7	8	9	6
1950-54	81	—	—	1	2	23	3
1955-59	43	—	—	1	1	2	3
1960-64	32	—	—	—	1	1	2
1965-69	20	—	—	—	—	—	2
1970-71	13	—	—	—	—	—	1

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Not separately recorded.

In 1956 a poliomyelitis immunisation programme was begun and since then the incidence of and deaths from this disease have declined (see Part 6.5).

There has been a long-term downward trend in deaths from respiratory tuberculosis. This has been assisted by the introduction in March 1952 of compulsory chest X-ray surveys of the population, enabling early detection and therefore more effective treatment of the disease. Of those diseases shown in the preceding table, in 1971 there were twelve deaths from respiratory tuberculosis.

The decline in the incidence of deaths from infectious diseases can be attributed to several factors, the more important being advances in medical science, improved hygiene and the general acceptance of immunisation of infants and young children against such diseases as diphtheria and whooping cough.

Malignant Neoplasms

For 1950 and subsequent years, deaths from malignant neoplasms (generally known as 'cancer') have included those deaths classified to neoplasms of lymphatic and haematopoietic tissues (ICD 200-209). This latter group, which accounted for 168 of the 1,660 deaths attributed to malignant neoplasms in 1971, includes such diseases as lymphosarcoma, Hodgkin's disease, leukaemia and aleukaemia.

The next table indicates a steady increase in deaths from malignant neoplasms and the table of age-specific death rates which follows shows how the rate increases with age. Therefore, the increase over the period in the rate at all ages is partly because of the increasing proportion of the population in the higher age groups.

Deaths from Malignant Neoplasms (140-209), South Australia^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
1935-39	348	362	710	11.77	12.26	12.02
1940-44	363	409	772	12.02	13.35	12.69
1945-49	416	424	840	12.88	12.97	12.92
1950-54	462	483	945	12.11	12.96	12.53
1955-59	565	519	1,084	12.79	12.06	12.43
1960-64	656	617	1,273	13.16	12.58	12.88
1965-69	820	698	1,518	14.77	12.67	13.72
Year:						
1967.....	804	700	1,504	14.44	12.66	13.55
1968.....	858	726	1,584	15.25	12.96	14.11
1969.....	919	755	1,674	16.11	13.26	14.68
1970.....	876	776	1,652	15.13	13.39	14.26
1971.....	912	748	1,660	15.53	12.70	14.11

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Number of deaths per 10,000 of mean population.

Malignant Neoplasms: Age-Specific Death Rates, South Australia^(a)

Age Group	Death Rate (b)					
	1920-22	1932-34	1946-48	1953-55	1960-62	1965-67
MALES						
0-4	0.97	—	0.49	1.18	1.02	1.14
5-14	0.39	0.12	0.51	1.05	0.82	0.97
15-24	0.33	0.31	0.07	1.64	0.86	0.90
25-34	0.89	1.05	1.18	1.21	1.33	1.62
35-44	3.48	3.36	2.57	4.63	4.29	3.72
45-54	13.08	8.65	12.35	10.42	11.57	15.09
55-64	37.75	35.41	32.77	33.43	36.52	43.46
65-74	87.18	89.18	82.62	69.54	83.67	87.28
75 and over	109.91	147.57	148.98	149.45	142.29	151.06
All ages.....	9.48	11.40	13.60	12.54	12.86	14.09
FEMALES						
0-4	0.38	0.30	0.41	1.24	0.79	0.57
5-14	0.39	0.13	0.23	0.34	0.79	0.55
15-24	0.49	0.25	0.40	0.72	0.46	0.82
25-34	1.09	1.49	1.74	1.99	2.16	1.70
35-44	6.04	6.32	4.42	5.95	6.66	5.68
45-54	17.53	16.86	15.39	12.67	16.69	16.14
55-64	32.56	34.61	30.12	32.91	28.19	30.33
65-74	63.69	55.98	57.21	52.26	52.24	49.90
75 and over	104.61	115.15	108.52	98.41	99.76	94.61
All ages.....	9.03	11.37	13.12	12.64	12.68	12.30

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1965.

(b) Average annual number of deaths per 10,000 of population at ages shown.

The following table shows deaths from malignant neoplasms according to site of the disease for selected years.

Malignant Neoplasms: Deaths, Site of Disease, South Australia^(a)

Site of Disease	1955	1960	1965	1970	1971
Malignant neoplasm of:	NUMBER				
Buccal cavity and pharynx (140-9).....	26	21	20	35	28
Digestive organs and peritoneum (150-9).....	391	425	479	546	564
Respiratory system (160-3)...	105	130	201	291	283
Skin (172, 173).....	16	28	34	44	42
Breast (174).....	103	120	107	146	156
Uterus (180-2).....	60	66	61	52	52
Other female genital organs (183, 184).....	31	39	47	63	43
Male genital organs (185-7)...	79	74	84	110	108
Urinary organs (188, 189) ..	62	67	88	79	81
Brain and nervous system (191, 192).....	26	32	50	43	40
Other and unspecified sites (170, 171, 190, 193-9).....	70	48	84	83	95
Neoplasms of lymphatic and haematopoietic tissue (200-9).....	81	97	128	160	168
Total deaths (140-209) ..	1,050	1,147	1,383	1,652	1,660
	RATE (b)				
Buccal cavity and pharynx (140-9).....	0.32	0.22	0.19	0.30	0.24
Digestive organs and peritoneum (150-9).....	4.77	4.50	4.50	4.71	4.80
Respiratory system (160-3)...	1.28	1.38	1.89	2.51	2.41
Skin (172, 173).....	0.20	0.30	0.32	0.38	0.36
Breast (174).....	1.25	1.27	1.01	1.26	1.33
Uterus (180-2).....	0.73	0.70	0.57	0.45	0.44
Other female genital organs (183, 184).....	0.38	0.41	0.44	0.54	0.37
Male genital organs (185-7)...	0.96	0.78	0.79	0.95	0.92
Urinary organs (188, 189) ..	0.76	0.71	0.83	0.68	0.69
Brain and nervous system (191, 192).....	0.32	0.34	0.47	0.37	0.34
Other and unspecified sites (170, 171, 190, 193-9).....	0.85	0.51	0.79	0.72	0.81
Neoplasms of lymphatic and haematopoietic tissue (200-9).....	0.99	1.03	1.20	1.38	1.43
Total rate (140-209) ..	12.80	12.14	13.00	14.26	14.11

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Per 10,000 of mean population.

Cerebrovascular Disease

The increase in both numbers and rates of deaths from cerebrovascular disease (commonly referred to as 'a stroke') is further evidence of the effect of the increased proportion of the population at higher ages. Although the rate generally has fallen since 1954, deaths from this cause still constituted 21 per cent of deaths of persons aged seventy-five years and over in 1971. During the period 1920-24 deaths classified to this cause were only 6.7 per cent of all deaths, but during 1965-69 they were 14 per cent of all deaths.

Deaths from Cerebrovascular Disease (430-438), South Australia^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
1925-29	171	188	359	6.03	6.80	6.41
1930-34	201	231	432	6.94	8.01	7.47
1935-39	231	294	525	7.84	9.95	8.90
1940-44	271	368	639	8.96	12.03	10.51
1945-49	321	431	752	9.92	13.21	11.57
1950-54	404	553	957	10.62	14.82	12.70
1955-59	481	614	1,095	10.89	14.27	12.55
1960-64	490	645	1,135	9.83	13.16	11.48
1965-69	567	731	1,298	10.21	13.26	11.73
Year:						
1967	560	686	1,246	10.06	12.40	11.23
1968	605	792	1,397	10.75	14.14	12.44
1969	557	743	1,300	9.76	13.05	11.40
1970	579	822	1,401	10.00	14.19	12.09
1971	611	832	1,443	10.40	14.12	12.26

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Number of deaths per 10,000 of mean population.

Diseases of the Heart

The following table shows the number of deaths attributed to heart disease and rates per 10,000 of the mean population since 1935.

Deaths from Diseases of the Heart (393-398, 410-429), South Australia^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
1935-39	639	498	1,137	21.63	16.88	19.25
1940-44	886	704	1,590	29.29	23.02	26.14
1945-49	1,094	822	1,916	33.84	25.15	29.47
1950-54	1,342	996	2,338	35.22	26.70	31.01
1955-59	1,519	1,111	2,630	34.38	25.81	30.15
1960-64	1,776	1,245	3,021	35.61	25.42	30.56
1965-69	2,036	1,432	3,468	36.69	25.97	31.35
Year:						
1967	1,996	1,436	3,432	35.85	25.96	30.92
1968	2,202	1,490	3,692	39.14	26.60	32.88
1969	1,989	1,386	3,375	34.86	24.34	29.60
1970	2,136	1,575	3,711	36.88	27.18	32.03
1971	1,976	1,445	3,421	33.64	24.53	29.08

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Number of deaths per 10,000 of mean population.

The percentage of total deaths classified to heart disease has increased from 11.0 per cent in the period 1920-24 to 37.3 per cent during 1965-69. Over the same period the rate per 10,000 of population has increased from 10.7 to 31.4. However, apart from the effect of the ageing population, there are other difficult-to-measure factors which have influenced this large increase, namely changes in the mode of certification and classification, and improvement both in diagnosis and certification; therefore a comparison of numbers, rates and percentages of deaths from this cause over the period should be made with caution.

External Causes

In the table which follows deaths from selected categories of external cause (accidents, poisonings, and violence) are shown for recent years.

Deaths: External Cause, South Australia

Year	Motor Vehicle Traffic Accidents	Accidental Drownings	Accidental Poisonings	Accidental Falls	Suicide and Self-inflicted Injury	Other External	Total
MALES							
1967.....	200	32	4	39	95	88	458
1968.....	205	35	9	43	90	83	465
1969.....	181	30	7	53	92	81	444
1970.....	262	27	5	57	97	92	540
1971.....	213	35	5	35	87	75	450
FEMALES							
1967.....	66	7	1	83	50	33	240
1968.....	66	5	4	72	39	38	224
1969.....	70	8	2	68	48	32	228
1970.....	92	5	5	68	41	43	254
1971.....	88	4	3	63	35	43	236

INFANT MORTALITY

The infant mortality rate, *i.e.* the number of deaths of children under one year to every 1,000 live births, has shown a marked decline from 148.77 in 1875-79 to 17.05 in 1965-69, and the rate of 15.79 in 1969 was the lowest ever recorded in this State. Many factors have contributed to the remarkable improvement in the infant mortality rate, principally measures taken (both legislative and educative) to control preventable diseases and the provision of facilities by the Mothers and Babies Health Association for the promotion of child health. The rate for male infant deaths is consistently higher than for female infant deaths.

Infant Deaths, South Australia

Year	Number of Deaths			Death Rate (a)		
	Males	Females	Persons	Males	Females	Persons
1968....	198	147	345	18.08	14.33	16.27
1969....	205	142	347	18.20	13.25	15.79
1970....	226	141	367	19.56	12.75	16.23
1971....	204	162	366	17.29	14.47	15.92
1972....	212	155	367	18.76	14.70	16.80

(a) Number of infant deaths per 1,000 live births.

Decrease in mortality has been much greater for infants a week or more old than for those under one week. However, to a large extent the factors influencing mortality in these two groups are different. Deaths of infants under one week can be related mainly to pre-natal causes which also have a bearing on still births. Combinations of still birth rates and rates of infant mortality to various ages have been shown in the following table which commences at the first

five-yearly period after the introduction of compulsory registration of still births in South Australia. These figures give a clearer indication of the improvement which has been effected in the saving of life.

Infant Mortality and Still Births, South Australia^(a)

Period	Still Births Plus Deaths Under 1 Week		Still Births Plus Deaths Under 1 Month		Still Births Plus Deaths Under 1 Year	
	Number	Rate (b)	Number	Rate (b)	Number	Rate (b)
Annual Average:						
1945-49 ..	613	38.35	668	41.79	798	49.92
1950-54 ..	533	29.44	578	31.92	704	38.88
1955-59 ..	503	25.46	543	27.49	689	34.88
1960-64 ..	510	23.54	551	25.44	679	31.35
1965-69 (c)	443	20.90	474	22.37	584	27.56
Year:						
1967.....	423	20.54	452	21.94	557	27.04
1968.....	443	20.68	473	22.08	562	26.23
1969 (c) ..	423	18.98	456	20.46	555	24.90
1970.....	453	19.85	476	20.86	567	24.85
1971.....	442	19.06	468	20.18	565	24.36

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Per 1,000 of all births (live and still). (c) Figures of still births from 1968 derived from perinatal death certificates.

The table which follows shows infant mortality rates in age groups since 1910.

Infant Mortality Rates: Age Groups, South Australia^(a)

Period	Number of Deaths per 1,000 Live Births at Ages:					Total Under 12 Months
	Under 1 Week	1 Week and Under 1 Month	1 Month and Under 3 Months	3 Months and Under 6 Months	6 Months and Under 12 Months	
Annual Average:						
1910-14 ..		28.55	10.81	12.50	15.96	67.82
1915-19 ..		29.88	8.80	9.41	13.76	61.85
1920-24 ..	19.82	8.86	8.26	8.94	12.57	58.45
1925-29 ..	20.35	6.73	5.66	5.93	7.87	46.54
1930-34 ..	18.69	4.89	4.12	4.23	6.12	38.05
1935-39 ..	17.81	3.98	3.65	2.88	4.54	32.86
1940-44 ..	15.75	5.37	4.60	3.83	5.02	34.57
1945-49 ..	15.50	3.52	2.88	2.44	3.01	27.35
1950-54 ..	13.08	2.53	2.25	2.08	2.75	22.69
1955-59 ..	11.79	2.06	2.45	2.42	2.65	21.37
1960-64 ..	11.25	1.93	1.93	1.99	2.07	19.17
1965-69 ..	10.35	1.50	1.70	1.74	1.77	17.05
Year:						
1967.....	10.40	1.42	1.57	2.01	1.57	16.97
1968.....	10.66	1.41	1.18	1.32	1.70	16.27
1969.....	9.78	1.50	1.73	1.46	1.32	15.79
1970.....	11.19	1.02	1.55	1.50	0.97	16.23
1971.....	10.57	1.13	1.48	1.70	1.04	15.92

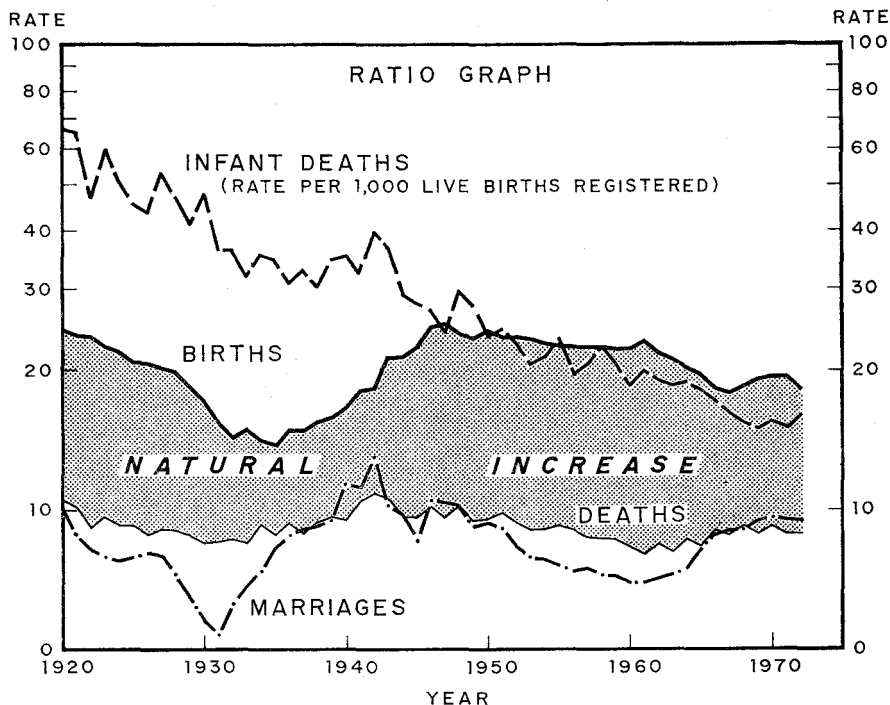
(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

The causes of infant deaths in 1971 classified according to age group are shown in the following table.

Infant Mortality: Causes in Age Groups, South Australia, 1971

Cause of Death	Age Group					Total Under 12 Months
	Under 1 Week	1 Week and Under 1 Month	1 Month and Under 3 Months	3 Months and Under 6 Months	6 Months and Under 12 Months	
Infective and parasitic diseases (000-136)	2	1	4	4	5	16
Diseases of nervous system and sense organs (320-389)	1	—	1	1	—	3
Diseases of respiratory system (460-519)	3	6	3	4	7	23
Congenital anomalies (740-759)	46	9	10	7	1	73
Perinatal causes:						
Maternal diseases and conditions (760-763)	23	—	—	—	—	23
Difficult labour (764-768)	10	—	—	—	—	10
Conditions of placenta and cord (770-771)	25	—	—	—	—	25
Haemolytic disease (774-775)	6	—	—	—	—	6
Anoxic and hypoxic conditions n.e.c. (776)	58	3	1	—	—	62
Immaturity, unqualified (777)	17	—	—	—	—	17
Other perinatal causes (769, 772, 773, 778)	48	2	—	—	—	50
All other diseases	4	5	12	20	8	49
Accidents, poisonings, violence (E800-E999)	—	—	3	3	3	9
Total all causes	243	26	34	39	24	366

VITAL STATISTICS RATES
SOUTH AUSTRALIA 1920 TO 1972
(PER 1,000 MEAN POPULATION)



EXPECTATION OF LIFE

The expectation of life at age x is defined as the average number of years lived after age x by each of a group of persons aged exactly x years. Because detailed information of the age structure and mortality experience of the population is required, the calculation of the expectation of life for each age is generally based on a period which spans a population census (the only time at which a sufficiently accurate age distribution is available).

The table which follows shows the expectation of life at specified ages in Australia based on mortality experience in the decade to 1910 and for the three years spanning each of the Censuses of 1921, 1933, 1947, 1954, 1961, and 1966. Generally, the figures shown in the table indicate that the number of years which people of all ages in Australia can expect to live has increased steadily since the turn of the century.

Expectation of Life, Australia

Age	1901-10	1920-22	1932-34	1946-48	1953-55	1960-62	1965-1967
MALES							
0.....	55.2	59.2	63.5	66.1	67.1	67.9	67.6
5.....	57.9	60.4	62.6	63.8	64.3	64.8	64.4
10.....	53.5	56.0	58.0	59.0	59.5	59.9	59.5
15.....	49.0	51.4	53.4	54.3	54.7	55.1	54.6
20.....	44.7	47.0	48.8	49.6	50.1	50.4	50.0
25.....	40.6	42.7	44.4	45.0	45.5	45.8	45.4
30.....	36.5	38.4	39.9	40.4	40.9	41.1	40.7
35.....	32.5	34.2	35.5	35.8	36.3	36.5	36.0
40.....	28.6	30.1	31.1	31.2	31.7	31.8	31.4
45.....	24.8	26.0	26.9	26.8	27.2	27.4	27.0
50.....	21.2	22.2	22.8	22.7	22.9	23.1	22.8
55.....	17.7	18.5	19.0	18.8	19.0	19.2	18.8
60.....	14.3	15.1	15.6	15.4	15.5	15.6	15.3
65.....	11.3	12.0	12.4	12.3	12.3	12.5	12.2
70.....	8.7	9.3	9.6	9.6	9.6	9.8	9.5
75.....	6.6	6.9	7.2	7.2	7.3	7.5	7.3
80.....	5.0	5.0	5.2	5.4	5.5	5.6	5.5
FEMALES							
0.....	58.8	63.3	67.1	70.6	72.8	74.2	74.2
5.....	60.8	63.6	65.6	67.9	69.6	70.8	70.6
10.....	56.4	59.2	61.0	63.1	64.8	65.9	65.8
15.....	51.9	54.6	56.3	58.3	59.9	61.0	60.8
20.....	47.5	50.0	51.7	53.5	55.1	56.2	56.0
25.....	43.4	45.7	47.2	48.7	50.2	51.3	51.2
30.....	39.3	41.5	42.8	44.1	45.4	46.5	46.3
35.....	35.4	37.3	38.4	39.5	40.7	41.7	41.6
40.....	31.5	33.1	34.0	34.9	36.0	37.0	36.9
45.....	27.6	29.0	29.7	30.5	31.4	32.3	32.3
50.....	23.7	24.9	25.6	26.1	27.0	27.9	27.8
55.....	19.9	21.0	21.6	22.0	22.8	23.6	23.6
60.....	16.2	17.2	17.7	18.1	18.8	19.5	19.5
65.....	12.9	13.6	14.2	14.4	15.0	15.7	15.7
70.....	10.0	10.4	11.0	11.1	11.6	12.2	12.2
75.....	7.6	7.7	8.2	8.3	8.7	9.2	9.2
80.....	5.7	5.6	6.0	6.0	6.3	6.7	6.7

5.4 MIGRATION

Powers and Legislation of the Commonwealth

Under the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws with respect to immigration, emigration, aliens and the influx of criminals.

Immigration into Australia is regulated by the *Migration Act 1958-1973* which came into force on 1 June 1959. The *Aliens Act 1947-1966* provides that a register of aliens shall be maintained for every State or mainland Territory of the Commonwealth and that, unless exempted, aliens sixteen years of age and over are required to register with the Department of Immigration. Under the provisions of the *Citizenship Act 1948-1969* aliens may, upon application, be granted naturalisation; generally, this is after five years residence but may be earlier under certain circumstances. Legislation and conditions of immigration into Australia and of naturalisation are discussed in detail in the *Official Year Book of the Commonwealth of Australia*.

Assisted Migration

The resumption of migration after the 1939-45 War was the subject of negotiation between the Commonwealth and British Governments towards the end of 1945, and two agreements were signed in March 1946. These agreements, which came into operation on 31 March 1947, provided for free and assisted passages to be granted to British residents desirous of settling in Australia. The Free Passage Agreement, which applied to British ex-servicemen and their dependants, was terminated in February 1955. The Assisted Passage Agreement continued in operation under renewal from time to time.

Since the commencement of the assisted passage schemes in 1947, the migration of unaccompanied children and youths from Britain has been encouraged under the auspices of approved voluntary organisations.

An agreement to settle displaced persons in Australia was made with the International Refugee Organisation in July 1947; the functions of this organisation were assumed in 1951 by the Intergovernmental Committee for European Migration (ICEM). In addition, ICEM is concerned with the movements of national migrants from Europe.

Migration schemes have been entered into with the governments of other countries including the Netherlands, Italy, Federal Republic of Germany, Austria, Greece and Turkey.

Assisted settler arrivals in Australia during the period January 1947 to June 1971 totalled 1,782,785 of whom 991,431 were British migrants under the Free and Assisted Passage Agreements. Included in the Australian total shown above were 199,488 who stated at the time of arrival that their proposed destination was South Australia.

Overseas Arrivals and Departures

Since 1924 the movements of overseas travellers have been classified into two main categories according to declared intention regarding residence short term and long term (including permanent). For short term movements, overseas visitors and Australian residents are identified separately.

The principal categories of travellers according to stated purpose of travel are as follows:

Permanent movement; consisting of persons arriving with stated intent to settle permanently in Australia, and Australian residents departing with stated intent to reside permanently abroad.

Long term movement; consisting of the arrival of visitors and the departure of residents with stated intent to stay (in Australia or in a country abroad respectively) for twelve months or more.

Short term movement; consisting of all other movements, including the movement of Australian troops irrespective of period of stay.

Separate figures for permanent and long term movements are not available on a State basis; hence these movements are combined in the table below showing overseas arrivals at, and departures from, South Australia. This table does not include persons who disembarked in other ports in Australia and subsequently settled in South Australia or South Australians who embarked from other ports for overseas.

**Overseas Arrivals and Departures, State of Embarkation/Disembarkation
South Australia
Intended Term of Residence**

Year	Long Term and Permanent		Short Term				Total		
	Males	Females	Australian Residents		Visitors		Males	Females	Persons
			Males	Females	Males	Females			
ARRIVALS (a)									
1963....	3,275	3,287	671	739	577	296	4,523	4,322	8,845
1964....	5,019	5,101	650	686	632	282	6,301	6,069	12,370
1965....	3,720	3,945	594	692	560	358	4,874	4,995	9,869
1966....	3,739	3,857	729	820	583	367	5,051	5,044	10,095
1967....	2,315	2,352	634	810	537	315	3,486	3,477	6,963
1968....	2,400	2,455	729	511	772	308	3,901	3,274	7,175
1969....	2,206	2,159	1,204	559	775	361	4,185	3,079	7,264
1970....	2,392	2,364	700	687	654	289	3,746	3,340	7,086
1971....	1,713	1,694	1,263	654	760	321	3,736	2,669	6,405
1972....	913	1,048	430	448	538	339	1,881	1,835	3,716
DEPARTURES (a)									
1963....	1,677	1,520	913	901	682	338	3,272	2,759	6,031
1964....	1,724	1,653	1,087	1,131	815	470	3,626	3,254	6,880
1965....	2,010	2,155	1,876	1,411	708	546	4,594	4,112	8,706
1966....	2,358	2,275	1,345	1,504	850	687	4,553	4,466	9,019
1967....	2,002	1,972	1,793	1,139	796	520	4,591	3,631	8,222
1968....	1,951	1,964	1,612	1,009	919	457	4,482	3,430	7,912
1969....	2,077	2,004	1,718	1,249	1,143	601	4,938	3,854	8,792
1970....	1,567	1,640	1,080	1,069	658	429	3,305	3,138	6,443
1971....	1,169	1,291	1,534	763	752	344	3,455	2,398	5,853
1972....	907	951	571	605	492	302	1,970	1,858	3,828

(a) Crew members and 'through' passengers (i.e. persons remaining on board a ship while in Australian waters or travelling in an aircraft passing through Australia) are excluded.

The number of long term and permanent arrivals in 1964 (10,120) and departures in 1966 (4,633) were the highest ever recorded in South Australia.

Revised questions for travellers introduced in 1958 have permitted the separation of permanent from other long term movements, and also the identification of former settlers departing among the permanent departures. This information shows that in 1971-72 there were 32,280 former settlers leaving Australia who stated that they were departing permanently. Of these 17,191 intended to settle in the United Kingdom or Ireland, 4,044 in New Zealand, 2,025 in other Commonwealth countries, 6,383 in European foreign countries and 1,447 in the United States of America. Other residents departing permanently totalled 12,439, of whom 2,716 intended to settle in the United Kingdom or Ireland, 3,149 in New Zealand, 1,638 in Papua and New Guinea and 1,532 in other Commonwealth countries.

Citizenship and Naturalisation

The *Nationality and Citizenship Act 1948* came into force on Australia Day, 26 January 1949, and repealed all previous Commonwealth legislation on this subject. The most significant effect of the Act was the creation for the first time of the status of 'Australian Citizen'. In this respect the Act was complementary to citizenship legislation passed or about to be passed by other countries of the Commonwealth of Nations. All Australian citizens, and the citizens of other countries of the Commonwealth of Nations are declared to be British Subjects. In the table which follows numbers of former aliens naturalised are shown according to previous nationality.

Nationality of Persons Naturalised, South Australia

Nationality	1967	1968	1969	1970	1971	1972
Austrian	44	58	69	51	46	31
Belgian	13	30	23	22	21	25
Czechoslovak	10	22	15	18	19	76
Dutch	619	494	335	311	180	165
Finnish	20	40	28	23	11	12
German	452	372	294	253	161	161
Greek	445	710	498	550	608	626
Hungarian	81	81	59	55	52	25
Italian	1,049	893	647	684	534	453
Latvian	19	25	13	13	9	5
Lebanese	15	12	12	17	19	27
Polish	198	151	154	88	164	120
Russian	43	43	10	11	4	13
Spanish	7	28	21	21	29	7
Ukranian	26	23	20	19	13	3
Yugoslav	219	307	232	253	207	244
Stateless	79	50	49	75	21	25
Other	108	107	136	131	102	157
Total	3,447	3,446	2,615	2,595	2,210	2,175

There were 1,985 naturalisation certificates granted in 1971 and 1,981 in 1972. Each certificate covers the person being naturalised and his/her children under the *Citizenship Act 1948-1969*. At the end of December 1970 there were estimated to be 40,000 registered aliens and 7,500 alien children under sixteen years of age residing in South Australia.

5.5 CHARACTERISTICS OF THE POPULATION

Statistics relating to characteristics of the population of South Australia are derived from information obtained at each population census. At the 1966 Census, these characteristics include the sex distribution, age distribution and the marital status of the population. Information was also obtained on the country of birth, period of residence, nationality, religion, educational attainment, occupational status, industry and occupation of the population. Figures for censuses before 1966 exclude full-blood Aborigines.

Sex Distribution

The masculinity of the population of South Australia, *i.e.* the number of males to each 100 females at each census is shown below.

Census Year	Masculinity	Census Year	Masculinity
1844	126.1	1901	101.5
1846	130.4	1911	103.1
1851	124.3	1921	100.6
1855	103.8	1933	100.3
1861	105.3	1947	98.2
1866	109.2	1954	102.7
1871	105.6	1961	102.3
1876	107.0	1966	101.0
1881	111.4	1971	99.7
1891	105.6		

At each Census except 1947 and 1971 the State's masculinity was greater than 100, *i.e.* there were more males than females in South Australia. The lower rate at the 1947 Census was partly because of the loss of male lives in the 1939-45 War, while the subsequent increase can be attributed mainly to the predominantly male migration inflow of the early post-war period. This is shown very clearly in the following table which gives masculinity in five-yearly age groups at the five censuses 1947 to 1971. Masculinity of the 20-24 and 25-29 age groups fell considerably between 1933 and 1947, but then rose to such an extent that by 1954 it was higher in these age groups than in any other age groups. The larger number of males in the younger age groups reflects the fact that the masculinity of births is consistently over 100 while the higher male death rate is reflected in the very low masculinity ratios of the older age groups.

Masculinity of Population According to Age, South Australia
Censuses 1947 to 1971

Age Last Birthday (Years)	1947	1954	1961	1966	1971
0-4	104.30	104.46	103.21	105.73	105.07
5-9	106.18	104.85	104.98	104.01	105.61
10-14	104.60	105.38	105.75	105.26	103.90
15-19	100.43	105.27	105.55	104.70	103.43
20-24	95.29	113.81	109.21	103.05	99.73
25-29	96.70	111.99	110.23	104.00	103.03
30-34	99.26	106.65	110.78	105.49	101.34
35-39	101.27	105.80	105.31	108.13	103.85
40-44	107.23	107.05	104.86	104.43	107.41
45-49	99.93	110.99	107.65	104.45	103.07
50-54	89.83	104.54	106.49	104.43	101.38
55-59	96.52	91.53	105.42	101.79	101.44
60-64	93.65	87.94	88.90	97.59	94.03
65-69	88.05	87.80	77.48	80.52	88.85
70-74	83.07	81.72	78.01	68.46	71.06
75-79	77.76	73.53	71.88	69.06	59.34
80-84	70.90	66.71	62.44	60.33	56.42
85-89	65.19	62.38	59.06	52.12	48.27
90 and over	56.17	53.08	40.60	41.25	38.44
All ages	98.16	102.72	102.32	100.99	99.73

Age Distribution

Details of the age distribution of the population are of particular importance because, as well as revealing changes which have occurred in the age structure from one census to the next, they also supply basic material for the calculation of fertility rates, mortality rates, probabilities of survival and annuity rates.

Age Distribution of Population, South Australia
Censuses 1966 and 1971

Age Last Birthday (Years)	30 June 1966			30 June 1971			Increase
	Males	Females	Persons	Males	Females	Persons	Persons
0-4	55,499	52,492	107,991	55,308	52,641	107,949	(—) 42
5-9	58,151	55,908	114,059	58,274	55,179	113,453	(—) 606
10-14	55,235	52,474	107,709	60,358	58,090	118,448	10,739
15-19	52,927	50,552	103,479	54,334	52,532	106,866	3,387
20-24	39,698	38,525	78,223	49,144	49,278	98,422	20,199
25-29	33,791	32,493	66,284	40,647	39,450	80,097	13,813
30-34	31,983	30,318	62,301	34,791	34,330	69,131	6,820
35-39	37,738	34,900	72,638	33,572	32,327	65,899	(—) 6,739
40-44	38,335	36,710	75,045	37,937	35,319	73,256	(—) 1,789
45-49	33,235	31,818	65,053	37,673	36,551	74,224	9,171
50-54	31,034	29,719	60,753	31,686	31,256	62,942	2,189
55-59	24,993	24,553	49,546	28,917	28,507	57,424	7,878
60-64	19,259	19,734	38,993	22,295	23,711	46,006	7,013
65-69	14,082	17,487	31,569	16,408	18,467	34,875	3,306
70-74	10,665	15,578	26,243	11,042	15,540	26,582	339
75-79	7,777	11,261	19,038	7,236	12,194	19,430	392
80-84	3,997	6,625	10,622	4,277	7,581	11,858	1,236
85-89	1,415	2,715	4,130	1,690	3,501	5,191	1,061
90 and over	382	926	1,308	462	1,202	1,664	356
Total	550,196	544,788	1,094,984	586,051	587,656	1,173,707	78,723

Age distribution of the population at the 1966 and 1971 Censuses is given in the above table. During the five-year period the population increased by 78,723 persons (7.2 per cent). The largest absolute changes in population occurred in the age groups 20-24 which increased by 25.8 per cent, and 35-39 which fell by 9.3 per cent.

The movement in these two age groups is partly because of the post 1939-45 War birth rate increase and the low birth rates of the depression years of the early 1930s respectively.

The mean or average age of the population of South Australia (excluding full-blood Aborigines) at the Census of 1954 was 32.2 years (males 31.5 and females 32.9); in 1961 it was 31.3 years (males 30.6 and females 32.1), but at 1971 it had risen again to 31.6 years (males 30.8 and females 32.5).

The next table shows that the proportion of the population under fifteen years of age fell markedly between 1901 and 1947, rose significantly between 1947 and 1961 but fell slightly between 1961 and 1971. Fifteen years and under sixty-five years showed an upward trend to 1947, but has since maintained a fairly stable level of approximately 61 per cent. The proportion of the population sixty-five years and over continued to rise over the period 1901 to 1954, but since 1954 has fallen slightly.

**Proportional Age Distribution of Population, South Australia
Censuses 1901 to 1971**

Census	Males			Females			Persons		
	Under 15 years	15 Years and Under 65	65 Years and Over	Under 15 years	15 Years and Under 65	65 Years and Over	Under 15 years	15 Years and Under 65	65 Years and Over
	Per cent								
1901....	36.0	60.0	4.0	35.9	59.8	4.3	35.9	59.9	4.2
1911....	31.1	64.4	4.5	31.3	63.8	4.9	31.2	64.1	4.7
1921....	32.2	62.8	5.0	31.3	63.5	5.2	31.7	63.2	5.1
1933....	26.8	66.6	6.6	26.0	66.6	7.4	26.4	66.6	7.0
1947....	25.1	67.0	7.9	23.5	67.0	9.5	24.3	67.0	8.7
1954....	29.2	62.9	7.9	28.6	61.3	10.1	28.9	62.1	9.0
1961....	31.4	61.2	7.4	30.7	59.1	10.2	31.1	60.1	8.8
1966....	30.7	62.4	7.0	29.5	60.5	10.0	30.1	61.4	8.5
1971....	29.7	63.3	7.0	28.2	61.8	10.0	29.0	62.5	8.5

Marital Status

The marital status of the population was ascertained at the 1966 and 1971 Censuses, when a statement of never married, married, married but permanently separated (legally or otherwise), widowed, or divorced was required in respect of every person enumerated.

In 1971 the number of persons who were stated to have been never married represented 45.8 per cent of the total population, approximately the same proportion as in 1966. Married persons in 1971 represented 47.0 per cent of the total compared with 45.6 per cent in 1966.

**Marital Status of Population, South Australia
Censuses 1966 and 1971**

Marital Status	30 June 1966				30 June 1971			
	Males		Females		Males		Females	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Never married:								
Under 15 years of age	168,881	30.69	160,866	29.53	173,940	29.68	165,910	28.23
15 years of age and over ...	110,983	20.17	81,906	15.03	113,130	19.30	85,163	14.49
Total never married	279,864	50.87	242,772	44.56	287,070	48.99	251,073	42.72
Married	249,571	45.36	249,290	45.76	275,465	47.00	276,232	47.01
Married but permanently separated ..	5,503	1.00	6,214	1.14	6,565	1.12	7,204	1.23
Widowed	11,019	2.00	41,658	7.65	11,364	1.94	46,617	7.93
Divorced	4,239	0.77	4,854	0.89	5,587	0.95	6,530	1.11
Total.....	550,196	100.00	544,788	100.00	586,051	100.00	587,656	100.00

At the 1966 Census 79.1 per cent of widowed persons were female and this proportion had increased to 80.4 per cent in 1971. The disparity between the number of widowed males and widowed females is the result of the greater longevity of females coupled with the usually younger age at marriage.

Country of Birth

The Australian-born content of the population in South Australia was 85.7 per cent in 1911, 88.3 per cent in 1921, 90.3 per cent in 1933, and 93.3 per cent in 1947. Overseas migration had lowered the proportion of Australian-born persons to 86.1 per cent by 1954, while in 1971 the proportion was down to 76.1 per cent. The proportion of the population born in the United Kingdom, including the Republic of Ireland, fell from 11.0 per cent in 1911 to 5.1 per cent in 1947 and rose to 12.6 per cent in 1971.

**Country of Birth of Population, South Australia
Censuses 1966 and 1971**

Country of Birth	30 June 1966	30 June 1971		Increase	
	Persons	Males	Females	Persons	.Persons
Australia.....	849,036	439,365	454,273	893,638	44,602
New Zealand	2,188	1,657	1,569	3,226	1,038
Europe:					
United Kingdom and Republic of Ireland	122,030	74,929	73,091	148,020	25,990
Germany	16,213	7,582	7,828	15,410	—803
Greece	14,660	7,716	7,001	14,717	57
Italy.....	30,848	17,675	14,753	32,428	1,580
Netherlands	12,443	6,252	5,491	11,743	—700
Poland.....	7,253	4,271	2,787	7,058	—195
Yugoslavia	6,352	5,269	3,662	8,931	2,579
Other.....	22,606	12,863	9,952	22,815	209
Total Europe	232,405	136,557	124,565	261,122	28,717
Other countries	11,355	8,472	7,249	15,721	4,366
Total born outside Australia.	245,948	146,686	133,383	280,069	34,121
Total	1,094,984	586,051	587,656	1,173,707	78,723

Of persons born in Europe, the greatest numerical increase between 1966 and 1971 was in persons born in the United Kingdom, including the Republic of Ireland, (25,990 persons). The greatest proportionate increase (40.6 per cent) was recorded for persons born in Yugoslavia. The percentage increase over the period 1966 to 1971 of persons born in the United Kingdom, Greece and Italy was much less than for the period 1961 to 1966.

Religion

Information on the religious affiliations of the population is obtained only at population censuses. There is, however, no legal obligation to answer the question on religion and at the 1966 Census respondents representing approximately 10 per cent of the South Australian population chose not to answer. The decline in non-response to this question (from 10 per cent in 1966 to 6 per cent in 1971) was partly because of changes in the wording of the question. This is reflected in the increase, from 0.8 per cent in 1966 to 8.2 per cent in 1971, in the number of persons who stated that they had no religion.

The Church of England has always had the greatest number of adherents, its relative importance having been fairly consistent since 1866 when it accounted for 31.8 per cent of answers compared with 24.4 per cent in 1971.

Religion of Population, South Australia
Censuses 1966 and 1971

Religion	30 June 1966	30 June 1971			Increase Per Cent
	Persons	Males	Females	Persons	
Christian:					
Baptist	22,243	10,146	11,864	22,010	(-) 1.1
Brethren	630	573	619	1,192	89.2
Catholic, Roman (a)	74,991	57,861	55,950	113,811	51.8
Catholic (a)	145,624	63,147	65,208	128,355	(-) 11.9
Churches of Christ	25,362	10,368	12,434	22,802	(-) 10.0
Church of England	286,323	138,951	147,803	286,754	0.2
Congregational	18,316	6,929	8,309	15,238	(-) 16.8
Lutheran	59,951	30,702	31,939	62,641	4.5
Methodist	227,717	102,778	112,550	215,328	(-) 5.4
Orthodox	27,754	17,194	15,442	32,636	17.0
Presbyterian	42,778	19,416	20,504	39,920	(-) 6.7
Salvation Army	7,372	3,838	4,349	8,187	11.1
Seventh Day Adventist	3,004	1,271	1,604	2,875	(-) 4.3
Protestant (undefined)	12,979	12,921	13,686	26,607	105.0
Other (including Christian undefined)	14,335	11,342	12,178	23,520	64.1
Total Christian	969,379	487,437	514,439	1,001,876	3.4
Non-Christian:					
Hebrew	1,249	552	579	1,131	(-) 9.5
Other	1,208	1,199	853	2,052	69.9
Total Non-Christian	2,457	1,751	1,432	3,183	29.6
Indefinite	3,561	2,091	1,660	3,751	(-) 5.3
No religion	8,623	57,868	38,006	95,874	1,011.8
No reply	110,964	36,904	32,119	69,023	(-) 37.8
Total	1,094,984	586,051	587,656	1,173,707	7.2

(a) So described in individual census schedules.

Changes in the pattern of religious affiliation appear to some extent attributable to migratory movements. This is particularly noticeable in the case of Catholics (*i.e.* persons described as either Catholics or Roman Catholics) who accounted for only 14.3 per cent of the answers in 1933 compared with 20.6 per cent in 1971, thus reflecting the pattern of post-war migration.

Period of Residence in Australia

The post-war migration flow into Australia is shown by the number of persons who have taken up residence in Australia since the late 1940s.

For the first time, in 1971, overseas born persons were asked to specify whether they were a resident of Australia or a visitor to Australia, along with details of the period of their residence in Australia. At the 1971 Census, of the 280,069 overseas born residents, 3,692 (1.3 per cent) were visitors to Australia. In 1947 there were 43,552 residents in South Australia (including visitors) who were not born in Australia and only 5 per cent of these had lived in Australia for less than five years. By 1954 the number of such persons had risen to 110,605, of whom 51 per cent had resided in Australia for less than 5 years. By 1971 the number (excluding visitors) had increased to 276,377, but the proportion of those who had lived in Australia for less than five years had fallen to 24.2 per cent.

**Period of Residence in Australia of Persons in South Australia
Censuses 1966 and 1971**

Period of Residence in Australia	30 June 1966			30 June 1971			
	Males	Females	Persons	Residents			Visitors
				Males	Females	Persons	Persons
Under 1 year	12,235	11,062	23,297	7,686	7,460	15,146	2,123
1 year and under 2	10,332	9,742	20,074	8,309	8,034	16,343	1,103
2 years and under 3	8,834	8,262	17,096	6,950	6,724	13,674	
3 years and under 4	5,961	5,757	11,718	4,962	4,721	9,683	
4 years and under 5	4,349	4,441	8,790	6,032	6,003	12,035	
5 years and over	87,919	73,586	161,505	103,438	92,166	195,604	
Not stated	1,935	1,533	3,468	6,887	7,005	13,892	466
Born outside Australia	131,565	114,383	245,948	144,264	132,113	276,377	3,692
Born in Australia	418,631	430,405	849,036	438,365	454,273	893,638	..
Total	550,196	544,788	1,094,984	582,629	586,386	1,170,015	3,692

Nationality

The nationality (or country of allegiance) of the population of South Australia at June 1966 and 1971 is given in the following table. For purposes of this table, Irish nationality is included with British. Decreases in the number of persons of most nationalities in 1971 are partly because of British naturalisation of former aliens.

**Nationality (i.e. Allegiance) of Population, South Australia
Censuses 1966 and 1971**

Nationality	30 June 1966	30 June 1971			Increase
	Persons	Males	Females	Persons	Persons
British (a):					
Born in Australia	849,036	439,365	454,273	893,638	44,602
Born outside Australia	193,955	114,961	104,670	219,631	25,676
Total British	1,042,991	554,326	558,943	1,113,269	70,278
Foreign:					
Dutch	6,677	2,391	2,226	4,617	(-) 2,060
German	5,682	2,173	1,996	4,169	(-) 1,513
Greek	9,863	4,400	4,403	8,803	(-) 1,060
Italian	17,762	9,006	8,367	17,373	(-) 389
Polish	1,611	572	497	1,069	(-) 542
U.S. American	816	1,022	731	1,753	937
Yugoslav	2,492	2,007	1,577	3,584	1,092
Other	5,932	5,095	3,964	9,059	3,127
Stateless	1,158	5,059	4,952	10,011	8,853
Total foreign	51,993	31,725	28,713	60,438	8,445
Total	1,094,984	586,051	587,656	1,173,707	78,723

(a) Includes Irish.

Persons of British nationality represented 99.7 per cent of the State population in 1947, but this proportion had fallen to 94.9 per cent by 1971.

Educational Attainment

Level of Schooling

At the 1971 Census information was sought for the first time on the highest level of schooling attended. The following table summarises the details obtained for South Australia.

**Level of Schooling of Population, South Australia
Census 1971**

Highest Level Attended	Currently Attending School			Not Currently Attending School		
	Males	Females	Persons	Males	Females	Persons
Child not yet attending school	..	..	..	56,767	53,990	110,757
Primary:						
Grades 1, 2, 3	40,144	37,010	77,154	4,674	5,079	9,753
Grade 4	12,881	12,129	25,010	4,819	5,253	10,072
Grade 5	12,989	12,300	25,289	12,054	12,236	24,290
Grade 6	12,671	12,196	24,867	16,043	15,943	31,986
Grade 7	12,384	12,052	24,436	82,239	93,903	176,142
Secondary:						
1st Year	12,460	11,636	24,096	28,317	31,023	59,340
2nd Year	11,934	11,524	23,458	45,022	49,247	94,269
3rd Year	10,147	9,849	19,996	73,368	83,512	156,880
4th Year	7,849	6,515	14,364	51,029	49,130	100,159
5th Year	3,598	2,523	6,121	60,070	44,690	104,760
Total at school	137,057	127,734	264,791	..	..	..
Other, never attended school	..	..	..	2,206	2,920	5,126
Not stated				12,386	12,996	25,382
Total population ..	137,057	127,734	264,791	448,994	459,922	908,916

Educational Qualifications

At the 1971 Census information was sought on the type of education qualification obtained. The following table shows that of the total population 15 years of age and over, only 19.5 per cent had obtained any educational qualification since leaving school.

**Educational Qualifications of Population, South Australia
Census 1971**

Highest Level of Qualification Obtained	Males	Females	Persons
No qualification	294,747	376,279	671,026
Trade level	76,688	7,595	84,283
Technician level	13,331	13,439	26,770
Tertiary (excluding degrees)	12,721	12,369	25,090
Bachelor degree, post graduate-diploma or equivalent	9,341	3,063	12,404
Higher degree level or equivalent	1,477	302	1,779
Qualification not classified by level	3,773	8,676	12,449
Inadequately described	33	23	56
Total with qualifications	117,364	45,467	162,831
Total population 15 years of age and over	412,111	421,746	833,857

Other Characteristics

Some census details of occupation, occupational status and industry are set out in Part 7.1.

PART 6

SOCIAL ENVIRONMENT

6.1 LAW, ORDER AND PUBLIC SAFETY

LAW AND ADMINISTRATION

The law in force in South Australia consists of:

- (i) so much of the common law of England and such English statute law as came into force on the original settlement of the colony in 1836;
- (ii) Acts passed by the Parliament of the State of South Australia, together with regulations, rules, orders, etc. made thereunder;
- (iii) Acts passed by the Parliament of the Commonwealth of Australia within the scope of its allotted powers, together with regulations, rules, orders, etc. made thereunder;
- (iv) Imperial law binding South Australia as part of the British Commonwealth, as part of the Commonwealth of Australia or as a State—subject, since 1931, to the Statute of Westminster (this relates mainly to external affairs or matters of Imperial concern);
- (v) Case law (this consists of judicial decisions of the English, Commonwealth, or State Courts, respectively, and represents an important part of the law in force in South Australia).

The scope of Commonwealth legislation is limited to the subjects specified in the Commonwealth Constitution. In some cases Commonwealth powers of legislation are exclusive of, in others concurrent with, those of the State. In all cases of conflict, valid Commonwealth laws override State laws.

LEGAL PROFESSION

Legal practitioners in South Australia are admitted to the Bar, after the prescribed academic training and service in articles, as barristers and solicitors. This means that the legal profession is not divided, as it is in New South Wales, Victoria and Queensland—a practitioner is entitled to act in either capacity.

The legal profession is controlled by the Legal Practitioners Act, 1936-1972. Rules of Court regulate articles of clerkship and prescribe the conditions of entry to the profession. Practitioners duly admitted to practice, and who are principals, have the right of audience in all courts of South Australia; those other than principals have this right in all courts except the Supreme Court. The Act provides for the hearing of charges of unprofessional conduct by the statutory committee of the Law Society and for its report to be referred to the Supreme Court which may make any order it thinks fit.

In 1972 there were 472 legal practitioners in private practice in South Australia.

LEGAL DEPARTMENT

In South Australia the Attorney-General is a Minister of State Parliament. There is a Solicitor-General who, under the Attorney-General, acts as legal adviser to the Government.

The Attorney-General is charged with the conduct of business relating to the Supreme Court and inferior Courts, the Crown Law Department (which includes the Crown Prosecutor) and the Parliamentary Counsel as well as statute law revision and consolidation. He also advises Ministers on questions on which his legal opinion is required, initiates and defends proceedings by and against the State and determines whether informations should be laid in cases of indictable offences.

The Attorney-General also administers Acts of Parliament relating to justices, coroners, lands titles, registration of companies and business names, liquor licensing and the Electoral Department.

SUPREME COURT

The various jurisdictions of the Court are civil, criminal, land and valuation, matrimonial causes and testamentary causes.

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

The Supreme Court Act, 1935-1972, provides *inter alia* for the constitution, jurisdiction, powers and duties of the Supreme Court and its judges. One of the powers of the judges of the Court of particular importance is that of making Rules of Court regulating the procedure of the Court. In particular the Rules, which are published in *The South Australian Government Gazette*, regulate the admission to practice of practitioners of the Supreme Court and control their conduct.

There are at present nine judges of the Supreme Court, comprising the Chief Justice, Dr J. J. Bray, QC, and eight puisne judges. A judge holds office until the age of seventy years at a salary fixed by statute. The Court sits in Adelaide, but holds circuit sessions three times each year at Port Augusta and Mount Gambier.

Civil and Criminal Jurisdiction

Generally speaking, the Supreme Court has unlimited civil and criminal jurisdiction, except in respect of matters which are reserved for the original jurisdiction of Commonwealth Courts. The Court as a rule determines its own practice.

Following the establishment of District Criminal Courts, jurisdiction to hear many indictable offences was vested in these Courts late in 1970.

Crimes and misdemeanours prosecuted by indictment in the Supreme Court must be tried before a jury of twelve persons who find as to the facts of the case; the penalty being determined by the judge. Capital punishment applies in the case of murder, treason and certain offences under the Commonwealth *Crimes Act* 1914-1966 and *Crimes (Aircraft) Act* 1963. The Court has original jurisdiction over all litigious matters arising in the State except where its jurisdiction is excluded by statute. Its original jurisdiction is usually exercised by one judge although it is possible in theory to try a civil issue with a jury.

The Court also has power to restrain inferior courts from acting in excess of their jurisdiction and may, by order, compel them to enforce a legal right. The Court also acts as a court of appeal from inferior courts. During 1972, the Supreme Court heard 208 appeals from inferior courts. Of these 86 were dismissed, 72 were allowed, 8 were remitted for rehearing, 5 were struck out and 37 were referred to the full court.

In proper cases, appeals may be carried from decisions of the Supreme Court to the High Court of Australia or to the Privy Council.

The following table gives details of persons tried, convicted, and executed for the years 1963 to 1972. In the post-war period to the end of 1972 a total of forty-two persons have been sentenced to death in South Australia, thirty-six of these sentences being subsequently commuted. No female has been executed in the State since 1873.

Supreme and Circuit Courts: Trials, Convictions and Executions, South Australia

Year	Tried		Convicted		Executed
	Males	Females	Males	Females	Males
1963.....	737	35	716	29	—
1964.....	650	21	608	21	1
1965.....	707	28	687	26	—
1966.....	751	19	720	18	—
1967.....	706	38	674	33	—
1968.....	698	38	659	33	—
1969.....	721	24	689	23	—
1970 (a)	603	23	570	18	—
1971.....	188	14	178	14	—
1972.....	114	12	95	10	—

(a) Comparability affected from 1970 by transfer of some jurisdiction late in 1970 to District Criminal Courts —see text above.

Details of convictions classified by type of offence are set out in the following table.

Supreme and Circuit Courts: Persons Convicted, South Australia^(a)

Type of Offence	1968	1969	1970 (b)	1971	1972
Offences against the person:					
Murder and attempted murder	3	3	6	9	4
Other acts causing death, injury or endangering life	33	20	34	16	14
Offences against females	167	147	116	11	7
Unnatural offences	26	18	21	4	2
Other offences against the person	8	19	10	3	2
Total	237	207	187	43	29
Offences against property:					
Robbery	11	20	24	36	32
Breaking and entering and burglary	307	340	272	23	5
Embezzlement and stealing by servants ...	12	9	6	5	—
Fraud and false pretences	20	22	11	—	2
Other offences against property	38	43	39	7	5
Total	388	434	352	71	44
Other offences:					
Forgery and offences against the currency	18	16	13	13	10
Breach of recognisance	24	32	10	43	6
Other	25	23	26	22	16
Total	67	71	49	78	32
Total (all offences)	692	712	588	192	105

(a) In the case of multiple charges, where more than one conviction is recorded, the most serious offence is counted.

(b) Comparability affected from 1970 by transfer of some jurisdiction late in 1970 to District Criminal Courts—see text page 151.

Matrimonial Causes Jurisdiction

As in other States, the Supreme Court exercises jurisdiction in matrimonial causes pursuant to the Commonwealth *Matrimonial Causes Act 1959-1971*. The Act superseded the existing State law, making many important changes in the practice and procedure of the Supreme Court in matrimonial causes.

'Matrimonial cause' normally refers to proceedings for a decree of dissolution of marriage; however, the Court also hears proceedings for a decree of nullity of marriage, judicial separation or restitution of conjugal rights.

The jurisdiction of the Supreme Court is co-extensive with the Supreme Courts of the other States; there is no requirement that either or both parties shall be domiciled or resident within the territorial boundaries of the jurisdiction of the Court. However, the Court will transfer to the most convenient court any suit for which it considers itself not to be the appropriate court.

Proceedings for a decree of dissolution of marriage, or of nullity of a voidable marriage, can be instituted only by a person domiciled in Australia; while proceedings for a decree of nullity of a void marriage can be instituted by a person domiciled or resident in Australia. The grounds upon which a petition for dissolution of marriage may be granted are set out in Section 28 of the Act, the

most common being desertion for two years, adultery, separation for five years, and habitual cruelty. Details of divorces granted and the grounds for divorce are shown in Part 6.8.

At the same time as the proceedings for principal relief, the Court may hear a claim for permanent maintenance and also a claim for custody of children. The powers of the Court in proceedings with respect to the custody, guardianship, welfare, advancement or education of children of the marriage are dealt with in Section 85 which provides that the Court shall regard the interests of the children as the paramount consideration but, subject to that, may make such order as it thinks proper. The Court also has wide powers in respect of the settlement of property.

Testamentary Causes Jurisdiction

The Supreme Court in its testamentary causes jurisdiction is the only authority competent to grant probate of the will, or administration of the estate, of any deceased person who leaves real or personal property in the State. With a few exceptions, the property of a deceased person cannot be dealt with in any way until a grant has been obtained. Pending a grant of probate or administration, all property of a deceased person, in respect of which he died intestate, is vested in the Public Trustee. The Court does not issue a grant until succession duty (if any) on the estate has been paid or security accepted for the due payment of duty.

The powers of the Court are exercised by a judge, the Master and the Registrar or Deputy Registrar of Probates. The latter deal with all applications for probate and administration where there is no contention and any matters prescribed by the rules. In cases of doubt or difficulty, the Registrar may obtain the direction of a Judge. The records of the Court are available for public inspection, and copies of wills and other documents may be obtained.

Some statistics of the estates of deceased persons appear in Part 13.3.

LOCAL AND DISTRICT CRIMINAL COURTS

Local and District Criminal Courts are now constituted under the Local and District Criminal Courts Act, 1926-1971. An amendment to the Act in 1969 increased the jurisdiction of local courts, established District Criminal Courts and provided for the appointment of a Senior Judge and other judges.

Local Courts

Local Courts were first established in South Australia by an ordinance of 1850 and originally had criminal as well as civil jurisdiction. The Local Courts Act, 1926 effected important alterations in the structure and jurisdiction of Local Courts by abolishing juries in Local Courts and also justices as constituent members of Courts of Full Jurisdiction (except on the application of a party), by conferring equitable jurisdiction on the Local Court of Adelaide of Full Jurisdiction, and by giving a full appeal to the Supreme Court on facts as well as on law from all judgments, determinations and orders of local courts in actions involving more than \$60.

Local Courts are divided into three groups—Full Jurisdiction, Limited Jurisdiction and Special Jurisdiction. The courts vested with all three jurisdictions are the Local Courts of Adelaide, Berri, Mount Gambier, Port Lincoln, Port Pirie and Whyalla. These courts may hear and determine actions for amounts up to \$8,000 with special provisions to deal with actions for damages arising from the use of a vehicle for up to \$10,000. The equitable jurisdiction provisions have also been extended to all Local Courts of Full Jurisdiction. Local Courts of

Limited Jurisdiction may hear and determine claims of up to \$2,500. Courts of Special Jurisdiction may hear and determine any unsatisfied judgment summons whatever the amount of the judgment.

A Local Court of Full Jurisdiction may be constituted of a Judge of the Supreme Court or a Local Court judge, and exercise all jurisdictions under the Act.

A special magistrate may exercise limited jurisdiction and special jurisdiction, while two justices of the peace sitting together or one special justice sitting alone may exercise special jurisdiction only.

Any Local Court may reserve any question of law arising in any action for the decision of the Full Court, and any party who is dissatisfied with any final judgment, determination or order of a local court, if the claim exceeds \$200, may appeal to the Full Court. Appeals involving claims under \$200 may be made if leave of the Full Court is obtained.

Pursuant to Section 28 of the Act, the Senior Judge or any other judge may make rules of court for carrying into effect the Act or any other Act conferring jurisdiction upon Local Courts.

Local Courts: Summary of Transactions, South Australia

Year	Total Claims		Verdicts and Judgments						Service and Execution of Process Act		
	Sum-mones Issued (a)	Amount Sued For	Verdicts by Trial		Judgment by Default		Total		Sum-mones for Service out of Jurisdiction	Certificates	
			Number	Amount	Number	Amount	Number	Amount		To Other States	From Other States
		\$'000		\$'000		\$'000		\$'000			
1967.....	96,145	8,867	1,637	405	49,346	4,363	50,983	4,768	2,797	1,609	269
1968.....	92,724	8,464	1,413	421	48,994	4,355	50,407	4,776	2,512	1,693	251
1969.....	93,679	8,684	1,989	466	47,535	4,362	49,524	4,828	1,805	1,385	318
1970.....	96,261	10,048	1,681	520	44,516	4,368	46,197	4,888	1,697	1,313	421
1971.....	98,181	13,435	1,916	1,291	45,013	5,501	46,929	6,792	1,787	1,338	483

(a) Including those withdrawn or settled out of Court.

District Criminal Courts

These courts came into operation on 31 August 1970 and have jurisdiction to hear and determine many of the indictable offences that previously could only be tried by the Supreme Court.

The State is divided into three proclaimed districts; Central Criminal Court District, Northern Criminal Court District, and the South Eastern Criminal Court District.

The jurisdiction of a District Criminal Court is exercisable by a Recorder sitting in open court, with or without a jury, or in chambers, as the case may require. The Crown is represented in District Criminal Courts by the Attorney-General or by counsel appearing on his behalf. The other party may conduct his own case or may engage counsel on his behalf.

A person who is not a practitioner of the Supreme Court entitled to practise cannot appear in a District Criminal Court on behalf of any party.

Appeals against verdicts and sentences of District Criminal Courts are to the Full Court.

Pursuant to Section 321 of the Act the Senior Judge and two other judges may make rules of court for carrying into effect the district criminal court provisions of the Act.

District Criminal Courts: Convictions, South Australia

Type of Offence	Convicted		
	1970	1971	1972
Offences against the person:			
Acts (except murder) causing death, injury or endangering life	6	15	23
Offences against females	18	148	164
Unnatural offences	4	18	13
Other offences against the person.....	1	7	3
Total	29	188	203
Offences against property:			
Breaking and entering and burglary.....	56	434	474
Embezzlement and stealing by servants.....	2	15	13
Fraud and false pretences.....	3	16	16
Other offences against property.....	8	33	67
Total	69	498	570
Other offences	8	53	86
Total (all offences)	106	739	859

COURTS OF SUMMARY JURISDICTION

Courts of Summary Jurisdiction are established in all major towns and hear many criminal cases. In offences of dishonesty their jurisdiction is in most instances confined to cases where the property value is not more than \$400, and the limit of their jurisdiction as to penalty is imprisonment for two years. Their procedure is regulated by the Justices Act, 1921-1972. They are presided over either by a special magistrate, a special justice or by two justices of the peace, with the more serious causes generally being heard by a special magistrate.

Special magistrates are appointed under the Justices Act and the Local Courts Act, and each appointment must be approved by the Chief Justice. Generally appointees are required to be practitioners of the Supreme Court who have been practising for some years.

Offences under the Road Traffic and Motor Vehicles Acts accounted for 61 per cent of total convictions in 1971-72—this compares with 52 per cent in 1961-62 and 42 per cent in 1951-52.

Of the 11,806 females convicted in 1971-72, 6,807 were convicted of offences under the Road Traffic and Motor Vehicles Acts, 699 under laws relating to local government (largely city parking offences), 1,013 for drunkenness and 857 were convicted of various forms of larceny.

**Courts of Summary Jurisdiction (Magistrates Courts), Persons Convicted
South Australia^(a)**

Offence	1967-68	1968-69	1969-70	1970-71	1971-72
Against the person	413	586	732	694	845
Against property:					
Burglary and housebreaking ..	767	719	801	949	1,216
Larceny (various)	2,837	3,404	3,330	3,844	4,030
Other	1,569	1,777	2,235	2,349	2,287
Against morality	349	350	517	415	437
Against good order:					
Drunkenness	6,889	7,528	9,650	9,365	10,181
Unlawfully on premises	598	617	645	583	529
Vagrancy	573	514	691	768	671
Other	2,149	2,575	3,030	3,278	3,481
Other, relating to:					
Road Traffic and Motor Vehicles					
Acts	70,472	70,781	73,242	68,138	75,244
Licensing	1,138	1,361	1,349	1,332	1,109
Social welfare	1,589	1,630	974	1,333	1,338
Police Act	1,509	1,455	1,612	1,866	1,668
Local government	4,691	2,995	3,864	4,963	5,683
Australian Broadcasting Act ..	2,884	2,903	2,575	2,648	2,883
Income tax assessment	1,004	1,083	1,908	1,653	2,637
Other	5,596	5,688	7,344	6,365	8,824
Total persons convicted:					
Males	96,747	97,111	104,709	100,766	111,257
Females	8,280	8,855	9,790	9,777	11,806
Total	105,027	105,966	114,499	110,543	123,063

(a) Includes juveniles. Where multiple charges have been laid against one individual at the same time each type of offence has been counted separately.

JUVENILE COURTS

Proceedings in juvenile courts are regulated by the Juvenile Courts Act, 1971 which came into force on 1 July 1972. A judge appointed under this Act exercises administrative control over juvenile courts throughout the State.

Juvenile courts may be presided over by a judge, a special magistrate or, in certain circumstances, two justices of the peace who have been approved as suitable to exercise this jurisdiction. The courts, if constituted of a judge or a special magistrate may try any offence (except homicide) committed by a juvenile. Limitations are placed on the jurisdiction of two justices of the peace.

Juvenile offenders appearing before courts are classified into two basic groups according to the age of the child. Children under sixteen years are charged with being in need of care and control as a consequence of an alleged offence. When dealing with children in this group the court may discharge the child, release the child on a bond with or without supervision, or place the child under the care and control of the Minister of Community Welfare. A child under sixteen cannot be convicted of an offence. Children over sixteen may be charged with an offence and dealt with as above with or without conviction; in addition the Act provides that a fine may be imposed. Juvenile courts also exercise jurisdiction over truants, neglected children and uncontrolled children.

In most cases when a child under sixteen years is alleged to have committed an offence, the matter is referred to a non-judicial body called a juvenile aid panel for consideration. Difficult cases may be referred by the panels to the juvenile courts.

Juvenile Offenders, South Australia^(a)

Offences	1967-68	1968-69	1969-70	1970-71	1971-72
Against the person	73	102	137	125	148
Against property:					
Burglary and housebreaking ..	737	702	696	939	1,168
Larceny (various)	1,297	1,483	1,630	1,932	2,124
Other	422	424	563	611	741
Against morality	130	132	129	142	149
Against good order:					
Unlawfully on premises	180	168	225	163	181
Other	560	558	740	858	908
Other:					
Road Traffic and Motor Vehicles Acts	3,574	4,710	4,337	4,396	3,989
Police Act	314	262	295	348	373
Other	428	563	665	1,014	1,066
Total juveniles convicted:					
Males	7,203	8,538	8,705	9,690	9,934
Females	512	566	712	838	913
Total	7,715	9,104	9,417	10,528	10,847

(a) Under 18 years. Includes both police and private cases. Excludes children found to be neglected, destitute or uncontrolled.

THE LICENSING COURT

The licensing of hotels and the issue of liquor licences for storekeepers, restaurants and clubs is governed by the Licensing Act, 1967-1972 under which is constituted a Licensing Court consisting of a Chairman who has the rank and title of Judge of the Court, a Deputy Chairman, and a panel of six Licensing Magistrates.

The more important work of the Court, for example the granting of new licences and the forfeiture and removal of licences, is done by the Full Bench which consists of the Chairman or Deputy Chairman and two Licensing Magistrates. Other matters may be dealt with by a member of the Court sitting alone.

Since the local option polls are no longer part of the licensing system the question of whether a licence should be granted is wholly in the hands of the Court. The Act contains some requirements which must be observed before the Court can grant a licence and full opportunity is given for any person to object on a number of grounds to the granting of a licence.

The types of licences that may be granted are:

- | | |
|--|-----------------------------|
| (a) Full publican's licence. | (j) Packet licence. |
| (b) Limited publican's licence. | (k) Railway licence. |
| (c) Wholesale storekeeper's licence. | (l) Restaurant licence. |
| (d) Retail storekeeper's licence. | (m) Cabaret licence. |
| (e) Wine licence. | (n) Theatre licence. |
| (f) Brewer's Australian ale licence. | (o) Special licence. |
| (g) Distiller's storekeeper's licence. | (p) Twenty litre licence. |
| (h) Vigneron's licence. | (q) Hotel broker's licence. |
| (i) Club licence. | |

A packet licence covers the sale of liquor to passengers on board steamers or vessels; a special licence may be granted where an application for the renewal

of a licence is adjourned, while the limited publican's licence is available to 'premises specifically constructed and primarily used for the service of the itinerant public.'

Fees for licences are paid in accordance with the amount of liquor purchased (or in some cases sold) during the preceding twelve months and at present in the case of the retail licences is calculated at 6 per cent of the amount of purchases.

Hotel bar trading hours are, with a few exceptions, from 9 a.m. to 10 p.m. In the case of a full publican's, limited publican's and restaurant licences, liquor may be consumed in the dining area each weekday from 12 noon to 1.30 a.m. on the following morning and on Sundays between 12 noon and 10.45 p.m. by diners. Similar provisions apply to wine licences where substantial food is served. New provisions relating to a special class of hotels referred to as *Tourist Hotels* were enacted in 1972.

Permits may be granted under certain circumstances to extend the trading hours of licensed premises and to allow the sale, supply or consumption of liquor in unlicensed premises. Permits may be granted to clubs for periods of up to one year for sale and supply to members for consumption on club premises—at 31 March 1973, 739 of these permits were current and in addition 1,149 permits were issued for separate club functions during the year.

In 1972 a provision was enacted providing that clubs whose takings for the sale of liquor exceeded \$15,000 in any one year would no longer be eligible for a permit but must apply for a licence.

The following table shows the number of licences and permits issued during the years ended 31 March 1969 to 1973.

Liquor Licences and Permits, South Australia

Licence or Permit	Year ended 31 March				
	1969	1970	1971	1972	1973
Licence:					
Publicans:					
Full	597	601	598	599	599
Limited	24	28	36	40	42
Storekeepers (a)	106	169	168	171	172
Vigneron's	32	46	47	46	52
Club	53	55	70	88	121
Restaurant	56	65	90	102	117
Other	75	93	53	65	57
Permits:					
Special licensed premises	3,788	6,386	6,209	7,049	6,730
Special unlicensed premises	13,920	19,554	15,286	15,282	15,652
Booth	7,449	9,125	7,330	6,998	7,653
Club	1,912	1,952	2,001	1,737	1,888
Other	358	420	345	344	521

(a) Covers wholesale, retail and distillers.

BANKRUPTCY

Since 1928 bankruptcy has been under Commonwealth jurisdiction. Under the Commonwealth *Bankruptcy Act*, 1966-1970 South Australia is a bankruptcy 'district' and jurisdiction is exercised through the Court of Insolvency of the State of South Australia exercising Commonwealth jurisdiction in bankruptcy.

Bankruptcies: Number, Liabilities, Assets, South Australia

Year	Sequestration Orders and Orders for Administration of Deceased Debtors Estates			Compositions, Schemes of Arrangement and Deeds of Assignment			Total Debtors
	Number	Liabilities	Assets	Number	Liabilities	Assets	Number
		\$	\$		\$	\$	
1968.....	745	3,644,158	1,907,511	14	390,395	327,320	759
1969.....	637	3,219,480	1,521,180	22	890,210	933,119	659
1970.....	594	2,995,037	1,698,836	17	781,840	615,217	611
1971.....	659	4,942,054	2,772,576	22	897,561	763,099	681
1972.....	555	2,731,438	1,303,906	22	443,515	205,443	577

A debt of at least \$500 is necessary before a creditor may commence bankruptcy proceedings. Preferential creditors include employees for amounts owing in respect of wages and salaries, workers compensation, long service leave, annual leave, recreation leave or sick leave, and the Commissioner of Taxation for unpaid tax on one year's income.

A bankrupt who has not previously been discharged is automatically discharged after five years unless an objection is filed with the Registrar in Bankruptcy.

ADOPTION COURTS

Adoption courts are held in Adelaide, Port Adelaide and all major country towns. They are presided over by a special magistrate and two justices of the peace, one of whom must be a woman. The function of these courts is to enquire into the character and standing of persons applying to adopt a child and to decide whether the adoption would be for the benefit of the child. For details of adoptions see the table on page 269.

JURY SYSTEM

The procedure in relation to juries is governed by the Juries Act, 1927-1971.

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.

Jury districts for the metropolitan and certain country areas are fixed by proclamation pursuant to the Juries Act and consist of a number of subdivisions of the House of Assembly electoral districts. Legislation passed in 1965 provided for women to serve on juries as well as men, and, with certain exceptions, all persons over the age of twenty-five and under sixty-five who are enrolled as House of Assembly electors within the proclaimed jury districts are qualified and liable to serve as jurors.

Persons exempted from liability to serve are listed in the third schedule to the Act and include judges, Members of Parliament, certain public officers, members of the defence forces, clergymen, legal practitioners, magistrates, university professors, police officers, doctors, dentists, pharmacists, opticians, physiotherapists, veterinary surgeons, newspaper editors and school teachers. Women automatically exempted include nurses, and the wives of judges, magistrates and police officers, but any other woman may also cancel her liability for jury service by giving notice to the Sheriff to that effect within six days after receipt of a jury summons.

A jury list is compiled annually by the Sheriff for each jury district. The names included in the jury lists are now selected by computer process. The jurors summoned to hear and determine an issue are selected by ballot. Accused persons and the Crown each have the right to challenge three jurors without assigning reasons. About 1,000 persons serve on juries each year in South Australia.

STATE INDUSTRIAL TRIBUNALS

Industrial arbitration in South Australia was inaugurated in 1894 by the establishment of Boards of Conciliation. Since then the system has undergone fundamental changes from time to time and the present basis is the Industrial Code, 1967-1972, under which the Industrial Court, Industrial Commission, Conciliation Committees and Commissioners have been established. For details on the composition of these bodies and their functions see Part 7.2.

LEGAL ASSISTANCE SCHEME

The Legal Assistance Scheme, administered by the Law Society of South Australia Incorporated, has been operating since 1933. This voluntary Scheme which has legislative recognition in the Legal Practitioners Act, 1936-1972, is supported by the legal profession and is designed to ensure that no person who is deserving of legal assistance shall be deprived of it by lack of finance.

The South Australian Government makes an annual grant to the Law Society to assist in the administration of the Scheme and, since 1960, the Government has made special annual grants to partially recompense legal practitioners acting in assigned cases. On 1 July 1970 the Legal Practitioners Trust Account was instituted and from that date further financial assistance to the Law Society and legal practitioners acting in assigned cases has been received from portion of the interest on this Trust Account.

PUBLIC TRUSTEE

The office of Public Trustee was established in 1881 and is now regulated by the Administration and Probate Act, 1919-1972. It provides a service to the public in the administration of estates and the protection of infants and absentee beneficiaries in estates administered by private administrators. A person may appoint the Public Trustee to be the executor and trustee of a will or as trustee of any disposition of property creating a trust.

The Public Trustee, where directed by the Court, becomes administrator of certain deceased estates; acts as guardian of certain infants; controls a protected person's property under the Aged and Infirm Persons' Property Act, 1940-1968; and receives, invests and distributes for the benefit of widows and minor dependants, amounts awarded under the Workmen's Compensation Act, 1971.

Under the Mental Health Act, 1935-1969 the Public Trustee has control of the estates of some of the patients in Government mental hospitals, and may be appointed to act for the estate of any person found to be of unsound mind.

THE SOUTH AUSTRALIAN POLICE FORCE

A police force was first established in South Australia in 1838 and has been administered by a Commissioner of Police since 1840. The number of police officers rose steadily from 127 in 1851 to a peak of 802 in 1929, fell to 674 in 1943 and has since risen steadily to 2,063 in 1972. The number of persons per police officer has fallen from 910 in 1943 to 575 in 1972.

The maintenance of law and order and the reduction of opportunities for criminal activity are the main functions of the Uniformed Branch. The Traffic Division of this Branch, while concerned with the general regulation and control of traffic, also aims at improving road safety by testing vehicles for road-worthiness, lecturing on road courtesy and safety, and conducting driving tests for licence applicants.

Police Personnel, South Australia^(a)

At 30 June

Personnel	1968	1969	1970	1971	1972
Commissioned officers	48	52	57	58	61
Non-commissioned officers	350	378	399	445	501
Constables	1,341	1,377	1,387	1,431	1,461
Women police	38	38	38	37	40
Total active police force	1,777	1,845	1,881	1,971	2,063
Persons per active member	631	618	616	595	575

(a) Active police force strength; excludes trainees, Women Police auxiliaries, civil staff, etc.

The Criminal Investigation Branch is split into squads each concerned with a particular type of crime. Auxiliary services provided by the modus operandi, fingerprint and photographic, scientific, ballistics and handwriting sections are often essential aids in criminal investigation.

Women Police officers have a role in the social welfare of the community which is now well recognised. These officers render assistance to lost and destitute children and endeavour to alleviate domestic suffering and hardship. They are also active in the control of juvenile delinquency. At 30 June 1972 there were forty Women Police officers.

In 1959 a Police Emergency Operations Group consisting of a Cliff Rescue Squad, Underwater Recovery Squad and an Emergency Squad was constituted. The Commissioner of Police is also responsible for the Emergency Fire Services, operations of which are outlined on pages 164-5.

Today, with an increasing number of laws and changing policing techniques, much emphasis is placed on the work of the Training Division. Police cadets (enrolled at sixteen or seventeen years) are given a three year course of academic and practical instruction at the Fort Largs Training Academy before graduating to active police work. At 30 June 1972 there were 370 police cadets.

In 1970 three new Sections instituted within the Department were:

- (1) Automatic Data Processing with responsibility for systems design and feasibility studies for computerisation of records,
- (2) Legal and In Service Training with its main objective to provide a legal research, advisory and training service to all sections of the Department, and
- (3) Management Services concerned with review of policies, practices and methods and to plan for the future to maintain and improve the efficiency of police operations.

In 1971 the use of light aircraft was instituted by the Department for the transport of personnel and prisoners throughout the State.

An extensive re-organisation of general duty police in the metropolitan area was begun early in 1973. This involved the division of metropolitan Adelaide into three territorial regions commanded by superintendents, the implementation of a sector system in regions and the restructuring of patrol areas with a greater emphasis on personal contact between the patrol force and the public. Advanced VHF/UHF interface repeater radio equipment between car and constable has been introduced to make foot patrolling more effective.

Other innovations being introduced are a crime prevention unit, a criminal intelligence centre and regional crime collators. A tactical reserve designated as a 'task force' has been formed under the command of the metropolitan superintendent who co-ordinates the activities of the metropolitan regions. Members of the task force receive special training to deal with extraordinary emergencies and can provide supplementary assistance at special events.

The following table gives details of the revenue and expenditure of the South Australian Police Force in recent years.

South Australian Police Force, Revenue and Expenditure^(a)

Year	Expenditure			Revenue	Net Cost	
	Wages and Salaries	Other	Total		Total	Per Head
	Dollars					
1967-68	7,053,980	2,198,998	9,252,978	116,083	9,136,895	8.19
1968-69	7,476,426	2,238,103	9,714,529	146,561	9,567,968	8.46
1969-70	8,700,055	2,068,500	10,768,555	147,093	10,621,462	9.24
1970-71	10,218,913	2,161,493	12,380,406	199,630	12,180,776	10.43
1971-72	11,947,148	2,354,245	14,301,393	(b)1,339,915	12,961,478	10.95

(a) As reflected in Consolidated Revenue Account only—capital expenditure is met from Loan Fund.

(b) Includes \$1,075,000 recoup from Highways Fund for traffic and road safety purposes which became payable under an amendment to the Highways Act from 1 July 1971.

GAOLS AND PRISONS

Gaols and prisons in South Australia are administered by the Prisons Department, eight being in use during 1971-72. Adelaide Gaol is a holding centre for remand prisoners and sentenced prisoners serving under three months. Yatala Labour Prison (8 miles from Adelaide) provides for minimum, medium and maximum security prisoners with sentences from three months to life. Gladstone Prison (mid-north), Port Augusta Gaol (north), Mount Gambier Gaol (south-east), and Port Lincoln Prison (west coast), are all medium security institutions. Cadell Training Centre on the River Murray 100 miles from Adelaide is a dual purpose training institution, accommodating 120 selected minimum security trainees and 60 medium security short-term prisoners. The Women's Rehabilitation Centre at Northfield accommodates women prisoners from all parts of the State. It is a holding centre for both sentenced and remand prisoners. In addition there are eight police prisons for short-term prisoners situated throughout the State.

In common with other States and countries the emphasis in South Australia is on rehabilitation, and with this end in view officers are carefully selected and undergo an intensive training course before being appointed to the prison service. Refresher and advanced training courses are held continuously to keep officers informed on penological matters. Training in a variety of trades and industries is available throughout the institutions enabling prisoners to be prepared for ultimate outside employment. Education courses at all levels are available at no cost; special classes are held for migrants and illiterates; medical, dental, psychological and psychiatric services are also provided. A classification committee ensures that prisoners are correctly assessed for education, employment, and other training purposes, and group counselling is practised in all institutions. Chaplains, the Prisoners Aid Association and other voluntary organisations assist the prison administration in a wide range of matters affecting the well-being and after-care of prisoners and their families. Two valuable community services rendered by prisoners are the transcription of books into braille for the blind, and the provision of emergency fire service units at three institutions.

In April 1970 the Parole Board was created to consider applications from prisoners for release on parole. The terms 'parole' and 'probation' are synonymous. Prisoners may be released on probation by the courts or released on parole from prison; both categories come under the supervision of officers of the Adult Probation Service. Officers of this service also supervise prisoners released on licence, such as habitual criminals, and those serving life sentences. The Adult Probation Service also prepares pre-sentence reports for the courts.

Gaols and Prisons, South Australia

Year	Total Accommodation for Prisoners	Prisoners Received to Serve Sentence (a)		Daily Average Number of Prisoners under Sentence	
		Males	Females	Males	Females
1967-68	1,276	6,951	475	823	39
1968-69	1,314	6,870	571	972	43
1969-70	1,356	6,290	714	900	45
1970-71	1,414	6,871	694	876	41
1971-72	1,497	6,952	758	891	42

(a) Counted once each time received.

PUBLIC SAFETY

FIRE SERVICES

The Fire Brigades Board

Provision for the establishment and maintenance of fire brigades in South Australia under the control and management of the Fire Brigades Board was first instituted in 1882.

In accordance with its general duty of extinguishing fires and protecting life and property in case of fire, the Board maintains suitably equipped fire brigades in proclaimed fire districts in the Adelaide Metropolitan Area and in country towns. At 30 June 1972 there were thirty-nine fire brigade stations of which

seventeen were metropolitan and twenty-two were country. During the year 1971-72 these brigades received 5,020 calls of which 553 were false and malicious calls. Some of these brigades are manned by permanent personnel and others by auxiliary firemen, there being at 30 June 1972, 403 officers and firemen and 116 auxiliary firemen.

In addition to its main function, the Board provides a service section for the regular maintenance of private fire equipment installed in public and private premises, and makes its officers available for inspection of premises and for advice on fire protection generally, as well as to demonstrate the use and handling of various types of first aid fire equipment.

The Fire Brigades Act, 1936-1958 provides that the expenses and maintenance of brigades be defrayed in the proportion of two-ninths by the Treasury; five-ninths by insurance companies; and two-ninths by the municipalities and district councils concerned. If the Treasury proportion exceeds its statutory contribution of approximately \$31,000, the excess is borne five-sevenths by insurance companies and two-sevenths by municipalities and district councils.

The total revenue for the year 1971-72 was \$2,695,962 including contributions of \$2,357,553 made up as follows; insurance companies \$1,414,140; municipalities and district councils \$548,413; and Treasury \$395,000 which included special grants of \$354,308.

South Australian Emergency Fire Services

The South Australian Emergency Fire Services was formed as a branch of Civil Defence during the 1939-45 War. When Civil Defence was disbanded, redundant trailer pumps were issued to local governing bodies by the State Government and the Emergency Fire Service (EFS) was developed into a volunteer country fire service, to protect those areas outside of the districts covered under the Fire Brigades Act, 1936-1958. The responsibility and authority for fire prevention and control in these outer areas are vested in local government by the Bush Fires Act, 1960-1972 and Local Government Act, 1934-1972.

South Australian Emergency Fire Services

Particulars	1968	1969	1970	1971	1972
Strength of service at 30 June:					
Affiliated organisations	395	412	417	431	437
Volunteer members	8,500	8,750	8,800	9,000	9,000
Fires attended in twelve months ended 30 June:					
Number of fires;					
Urban type	300	318	265	261	328
Bush	605	592	1,044	1,066	1,204
Acres destroyed in bush fires...	42,145	50,351	318,745	110,909	74,795
Financial losses;			Dollars		
Urban type	296,714	757,110	340,023	628,946	500,141
Bush	37,676	75,641	245,328	210,848	50,611

EFS Headquarters, a branch of the Police Department, functions as a co-ordinating centre. The Director of Emergency Fire Services, responsible to the Commissioner of Police, advises on fire protection problems, conducts competitions and training programmes, and co-ordinates fire-fighters and auxiliaries in major fire control. Fire equipment purchased by EFS organisations and councils is subsidised by the Bush Fires Equipment Subsidies Fund (equal contributions by the State Government and by fire insurers), and government subsidies are provided for maintenance.

The two main causes of fires attended by the Emergency Fire Service during 1971-72 were children with matches, and burn off out of control.

LIFE SAVING

The Royal Life Saving Society—Australia

The South Australian Branch of the Royal Life Saving Society—Australia was established in 1909 and the formation of clubs at various beaches followed. In 1952 an agreement was made with the Surf Life Saving Association whereby this body undertook responsibility for life saving on ocean beaches, the Royal Life Saving Society retaining responsibility in all other areas of activity.

In South Australia the Society has developed into a large teaching body administered by a State Council, giving instruction to schools and other interested bodies in the various methods of life saving, including the current methods of artificial respiration. This is done through the medium of honorary instructors and examiners. In the winter months the emphasis is on talks and demonstrations on resuscitation, but during the swimming season weekly life saving instruction and examination and the performance of life saving demonstrations are conducted throughout the State. Certificates and medallions were issued to 23,321 candidates who passed the various examinations in the 1971-72 season.

The honorary work of the Society is financed mainly by grants made by the Commonwealth and the State Governments, and by donations.

The Surf Life Saving Association

The South Australian State Centre of the Surf Life Saving Association of Australia was formed in 1952, with the co-operation of the South Australian Branch of the Royal Life Saving Society and the Surf Life Saving Association of Australia.

The Henley, Glenelg and Moana Life Saving Clubs formed the nucleus of this body, which now has eighteen affiliated clubs situated at Semaphore, Grange, Henley, West Beach, Glenelg, Somerton, Brighton, Sealiff, Christies Beach, Port Noarlunga, Southport, Moana, Chiton Rocks, Port Elliot, Whyalla, Taperoo Beach, Hallett Cove and Goolwa.

Voluntary members give many hours to patrolling their respective beaches each weekend and public holiday from the beginning of November until the end of March. At 30 June 1972 there were 1,584 members in Association clubs. From 1952 to the end of the 1971-72 season 1,452 rescues were performed with no loss of life on South Australian beaches while being patrolled by club members. During this same period many hundreds of persons received first-aid treatment.

The South Australian State Centre receives an annual grant from the State Government and individual clubs have been assisted with subsidies when building their club houses.

'Learn to Swim' Campaign

Vacation swimming classes organised by the Education Department were first established on an extensive scale in January 1956. Thirty-six country and fourteen metropolitan swimming centres were set up and over 7,000 children enrolled for instruction. The January 'Learn to Swim' campaign has been continued in each subsequent year and has grown steadily; in the summer vacation of 1971-72, 126 country and 62 metropolitan swimming centres were used, and the total student enrolment was over 42,000. Instruction is provided over a period of ten days by qualified swimming instructors. Instruction in Surf Life Saving was offered for the first time in 1972 at eleven metropolitan and four country beaches.

Swimming classes have also been conducted in school time since October 1954, and in the first term of 1972 about 70,000 children were enrolled in such classes.

Although swimming is still a major part of the programme, the Education Department has introduced a number of water safety skills into the swimming programme. All instructors are trained to teach water safety, life saving and swimming by the most up to date methods available.

Of children in Education Department schools who left Grade 7 of the Primary School at the end of 1971, 71 per cent could swim at least 20 yards.

INDUSTRIAL ACCIDENT PREVENTION

The post-war growth of industrial activity in this State was accompanied by an increasing toll of injuries and fatalities sustained during the course of employment. Legislation requires certain minimum standards of safety in working conditions to be provided in various industries, and inspections are made to ensure compliance with legislative requirements. However, legislation and inspection are not the only means of minimising industrial accidents and in the late 1950s the South Australian Government implemented a programme of education for management, supervisors and employees in accident prevention measures, with the object of making all sections of industry more 'safety conscious'.

Safety officers employed in the Department of Labour and Industry actively pursue this policy by conducting safety training courses, presenting lectures, screening films and distributing industrial safety pamphlets produced within the Department.

In addition the Safety Engineering Society of Australasia, the Australian Institute of Management (Adelaide Division), the South Australian Institute of Technology and the Commonwealth Department of Labour make valuable contributions within their particular spheres of activities to the promotion of industrial safety. Further details relating to industrial accidents are included in Part 7.4.

NATIONAL SAFETY COUNCIL OF AUSTRALIA S.A. DIVISION

The National Safety Council of Australia S.A. Division was formed in 1963 as the Industrial Accident Prevention Society of S.A. Inc., a voluntary non-profit educational body. It is an autonomous branch of the largest organisation in Australia devoting its entire resources to the reduction of accidents in most areas of the community. In South Australia the Council's efforts are largely devoted to occupational and child and home safety problems, traffic safety being the function of the Road Safety Council of South Australia. The S.A. Division

is also responsible for servicing the requirements of members in the Northern Territory and regular visits are made to that area for safety training and promotional purposes.

The aims of the Council are carried out by the provision of safety consultant services, lectures, training courses and the distribution of safety publications and materials. Finance is derived from membership fees, services, an annual grant from the State Government and assistance from the Commonwealth Government. The Council's activities are controlled by a body representative of all spheres of community interest.

ROAD SAFETY COUNCIL OF SOUTH AUSTRALIA

The Road Safety Council of South Australia was formed in December 1965. The Council appointed by State Cabinet consists of an independent chairman and ten members representing the National Council of Women, the Road Traffic Board, the Police Department, the Royal Automobile Association of South Australia, the Fire and Accident Underwriters Association of South Australia, the Local Government Association (Metropolitan and Country), the Education Department, the South Australian Railways and the Trades and Labor Council of South Australia.

The objectives of the Council are to prevent road accidents involving death, injury or property damage through united action by all sections of the community, and to advise and assist government, semi-government and local authorities as well as private organisations in the adoption of precautionary measures in an attempt to prevent such accidents. In its efforts to achieve its objectives the Council concentrates on the education of road users in correct practices.

The Council is a section of the Department of the Minister of Roads and Transport and the Minister of Local Government. Its administrative headquarters are at the Road Safety Instruction Centre at Oaklands Park. The facilities of the Centre include lecture rooms and instructional areas for children of all age groups and a road system or driving range. Appropriate courses in road safety education are conducted.

The Council operations are financed from the 50 cents derived from each driver's licence fee under the Motor Vehicles Act, 1959-1972.

CONSUMER PROTECTION

Consumer protection in South Australia is the responsibility of the Commissioner for Prices and Consumer Affairs who is in charge of the Prices and Consumer Affairs Branch of the Treasury Department. The activities of this Branch include the investigation of consumer complaints, research into consumer problems, consumer education and, under certain circumstances, the institution of legal proceedings on behalf of a consumer against any other person or body, or the defence of a consumer in any proceedings brought against him.

Legislation giving the Commissioner the necessary powers to act on behalf of consumers is contained in several Acts of Parliament, the more important being the Prices Act, 1948-1972, the Door to Door Sales Act, 1971, the Book Purchasers Protection Act, 1963-1972, the Unfair Advertising Act, 1970-1972, the Second-hand Motor Vehicles Act, 1971 and the Unordered Goods and Services Act, 1972.

Prices Act

Under the Prices Act, 1948-1972, the Commissioner for Prices and Consumer Affairs is empowered to:

- (1) receive and investigate complaints from consumers and to take appropriate action;
- (2) carry out investigations and research into matters affecting the interests of consumers;
- (3) publish reports and disseminate information on consumer matters;
- (4) give advice to persons of the protection afforded them under the Prices Act or any laws affecting their interests as consumers;
- (5) report on matters of importance to the Minister; and
- (6) take legal action on behalf of consumers in certain circumstances.

The foregoing powers and functions of the Commissioner offer wide protection to consumers in every day transactions regardless of the sum of money involved.

Door to Door Sales Act

The purpose of this Act is to give the householder an opportunity to reconsider any contract which he may have entered into and to cancel it if he so wishes within eight days of the seller handing or posting to him a statement explaining his rights as to cancellation.

Although there are certain circumstances under which the Act does not apply, in general it covers the sale of all goods and services where the total charge is more than \$20 and where any part of the negotiations leading to the contract is conducted at a purchaser's home or place of work. Included in services is work performed by a tradesman who offers his services at the door for building renovation, wall texture coating, roof painting, white ant or salt damp treatments and similar work.

Under the Act a contract is not enforceable unless:

- (1) it is in writing and sets out all the terms including the total amount payable or how it may be calculated;
- (2) two copies have been signed by both the seller and the purchaser;
- (3) the purchaser has received the duplicate copy of the contract and a statement concerning his right to terminate it; and
- (4) the seller has obtained the purchaser's acknowledgement in writing for the receipt of both the duplicate copy of the contract and the statement.

The Act requires that a salesman or tradesman engaged in the door to door sale of goods or services *immediately* states the name and address of the firm for which he works or his own, if self-employed, and the true purpose of his visit.

The salesman or tradesman *must not accept* any deposit whether cash or otherwise until he is satisfied that a purchaser has not terminated the contract and furthermore that the right to terminate has lapsed.

Book Purchasers Protection Act

To prevent a householder from making a hasty and perhaps unwise decision when confronted in his own home or at his place of work by a door to door salesman offering high priced sets of encyclopaedias or even orders for a twelve months supply of overseas magazines, the law provides that any contract signed

by him to a value in excess of \$20 shall not be enforceable unless he confirms it in writing not less than five nor more than fourteen days after the date of the contract.

This means that the householder is allowed to have second thoughts after the salesman has left and is not legally committed to any contract unless he subsequently confirms it in writing.

Unfair Advertising Act

This Act is aimed at improving the general standard of advertising and thus enable consumers to place more reliance on the accuracy and truthfulness of the information provided in respect of the goods or services advertised.

Under the Act it is an offence for any person to publish or cause to be published any advertisement relating to goods and services or to the provision of credit for any transaction relating to goods and services if it contains an unfair statement.

An unfair statement is defined as being one which is inaccurate, basically untrue or likely to deceive or mislead any person to whom it is directed.

Second-hand Motor Vehicles Act

Most people have only a limited knowledge of motor cars and are unable to assess their mechanical condition. Furthermore they are unlikely to have much appreciation of the relative merits and values of different cars and are therefore at a further disadvantage when attempting to select one, particularly when confronted with the wide variety of choice available in many used car yards.

This Act is intended to offset many of the disadvantages under which the purchaser previously found himself, by providing various safeguards particularly in relation to the mechanical condition of second-hand cars offered for sale.

Unless the omission of one or more of the following particulars has been authorised by the Commissioner for Prices and Consumer Affairs because of interstate origin, all cars offered for sale must carry a notice carrying the dealers name and address, the cash price, the name of the last private owner and the mileage of the car at the time he sold it and the year of first registration and model of the car. When the car is sold a copy of the notice duly signed by the dealer or his agent must be handed to the purchaser at the time of sale.

With regard to the mechanical condition of a car, the dealer is obliged to repair or make good free of charge, any defects (other than those which may have been listed by him in a notice attached to the car) which;

in the case of a car priced at \$1,000 or more, appear within three months of, or before the car has been driven for 5,000 kilometres after the sale, whichever occurs first; or

in the case of a car priced at less than \$1,000 but more than \$500 appear within two months of, or before the car has been driven for 3,000 kilometres after the sale, whichever occurs first.

The dealer is not responsible for defects arising from accidental damage or negligence by a driver after the sale of a car or for defects occurring in accessories such as tyres, battery or radio, or in certain makes of cars specifically excluded from the Act, or in cars where the price paid is less than \$500.

Where a list of defects is attached to a car the dealer must state the estimated cost of repairing each defect and if a purchaser subsequently has to pay more, he may sue the dealer for the difference. Both the dealer and the purchaser must sign two copies of the list, one of which must be given to the purchaser at the time of sale.

The Act also:

- (1) makes the dealer responsible for any statement made by his employees concerning the quality, description or history of a car;
- (2) requires the dealer to give the purchaser a written notice stating the monetary value of any 'trade-in' involved;
- (3) makes it an offence for any person to obtain the purchaser's signature on any document before they have been completed in every detail;
- (4) makes it an offence for any person to deliberately alter the mileage recorded on the odometer (speedometer) or misrepresent the model or the year of manufacture or first registration of a car for the purpose of enhancing its value; and
- (5) requires every advertisement to state the registration number (or engine number if there is no registration number) of any car which is specifically mentioned.

If a dealer avoids or attempts to avoid his responsibilities under the Act and the purchaser's own attempts to obtain satisfaction are unsuccessful, the dispute may be referred to the Commissioner for Prices and Consumer Affairs if both parties agree in writing. In this event the Commissioner's decision is final and binding on the dealer and the purchaser. If, however, the dealer or the purchaser refuses to have the dispute referred to the Commissioner, either party may apply for it to be heard by the local court. If this occurs the Commissioner's power to protect the interests of consumers by legal action applies in proper cases. In the most serious cases the Commissioner for Prices and Consumer Affairs may apply to the local court for a contract to be rescinded, as distinct from having the defects rectified.

Unordered Goods and Services Act

This Act protects people from liability for any goods which are sent to them from anywhere within or outside South Australia by any other person or firm where no request has been made for such goods to be sent.

Unordered goods become the property of the recipient if he has notified the sender that the goods were not ordered and the sender has failed to take steps to recover the goods within one month after the day such notice is given or within three months after the day on which the recipient receives the goods, whichever expires first, unless:

- (1) during the relevant period the recipient unreasonably refuses to allow the sender to take possession of the goods; or
- (2) the recipient knows or can reasonably be expected to know that the goods were never intended for him.

Where the recipient does not notify the sender that the goods were not ordered, they still become his property after a lapse of three months subject to the provisos above.

The Act also:

- (1) makes it an offence for a person or firm to demand payment from any person for any goods which were not ordered by him; and
- (2) provides that the recipient of unordered goods is not liable to pay for such goods nor is he liable for any loss of or damage to such goods other than that arising from his wilful or unlawful damage to or disposal of them during the period of time that the sender has a right to recover the goods.

Apart from covering unordered goods, the Act also protects all sections of the community from liability for unauthorised entries in directories. In the main, directory entries relate to firms and companies rather than private individuals and are normally classified according to trade, business or profession. The Act renders a person (*i.e.* a private individual, tradesman, professional man, business house, etc.) not liable for any directory entry which has not been authorised by him in writing and makes it an offence for payment to be demanded from him for any such entry.

Statistical Details

The following table gives details of complaints investigated by the South Australian Commissioner for Prices and Consumer Affairs during 1972.

South Australian Commissioner for Prices and Consumer Affairs Formal Complaints Investigated, 1972

Particulars	Number of Complaints	Percentage of Total
Motor vehicles:		Per cent
Used motor vehicles:		
Faulty	258	10.5
Misrepresentation of year of model	46	1.9
Other	112	4.5
Motor vehicle repairs	95	3.9
New motor vehicles	41	1.6
Insurance	23	0.9
Total motor vehicles	575	23.3
Door to door sales:		
Books and magazines	53	2.2
Other	104	4.2
Total door to door sales	157	6.3
Unfair advertising	167	6.7
Unordered goods and services	39	1.6
Consumer credit	70	2.8
Excessive charges for goods	216	8.8
Excessive charges for services	413	16.8
Faulty goods and services:		
Building work and allied trades	103	4.2
Electrical and household appliances	76	3.1
Other	182	7.4
Total faulty goods and services	361	14.7
Unfair dealing:		
Concert tickets	131	5.3
Retention of rental bonds	44	1.8
Other	186	7.5
Total unfair dealing	361	14.7
Miscellaneous complaints	80	3.2
Referred to other authorities	26	1.0
Total complaints	2,465	100.0

6.2 EDUCATION

In South Australia attendance at school is compulsory for children from six to fifteen years of age. Children who are five years of age by the last day of February may be admitted to State schools on the first school day in February; children who are five years of age on or before 2 July may be admitted on the first Monday after the last Saturday in June of that year. Experiments in other entry systems are being conducted.

Education at the primary and secondary level is available at State schools controlled by the Education Department and at private schools, most of which are denominational. The University of Adelaide, the Flinders University of South Australia and the Colleges of Advanced Education are independently controlled but are financially dependent on government grants.

Facilities for adult education are provided by the Department of Further Education, the Workers Educational Association and the University of Adelaide.

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

PRE-SCHOOL EDUCATION

The kindergarten movement in South Australia was founded in 1905 and up to the end of the 1939-45 War kindergartens were primarily designed for the care and education of under-privileged children. Since 1946 they have become generally accepted as a phase of education, with a consequent rapid increase in facilities.

Although some independent kindergartens are conducted by private individuals, or by private schools, the majority of pre-school education is under the supervision of the Kindergarten Union of South Australia (Inc.). This organisation trains kindergarten teachers (see page 202) and supervises 145 subsidised and thirteen unsubsidised kindergartens situated throughout the State.

While the supervision covers various aspects of organisation it is largely concerned with the educational programme. As well as encouraging the creative, physical and mental development of the four to five years old child the kindergarten prepares him for the experiences of formal schooling. Sessions are generally of two and a half to three hours duration each day with enrolments limited to thirty children a session; two sessions are held daily at most kindergartens.

Kindergartens, South Australia^(a)

Year	Kinder- gartens (b)	Teachers	Children Enrolled End of Year	Receipts			Expenditure		
				Govt Aid	Other	Total	Salaries	Other	Total
				Dollars					
1968.....	126	348	6,848	547,000	366,868	913,868	644,522	279,940	924,462
1969.....	130	363	7,159	616,869	420,238	1,037,107	706,885	330,476	1,037,361
1970.....	133	376	7,356	750,400	460,043	1,210,443	827,208	385,496	1,212,704
1971.....	136	411	8,192	1,003,700	526,704	1,530,404	1,115,985	431,297	1,547,282
1972.....	145	423	9,719	1,277,498	669,269	1,946,767	1,322,222	618,931	1,941,153

(a) Schools administered by the Kindergarten Union of South Australia (Inc.).

(b) At end of period.

The Kindergarten Union, although a voluntary organisation, receives approximately 60 per cent of its revenue from a State Government grant. Part of this grant is in turn used to subsidise the salaries of teachers at individual kindergartens. However, local committees are responsible for the construction, equipping and maintenance of their own kindergartens, revenue for these purposes coming from either direct contributions or various fund raising activities.

GENERAL SCHOOL EDUCATION

The State Government, through the Education Department, provides free facilities for primary and secondary education; however, parents may choose between State and private schools. The Education Department functions under the Minister of Education. The permanent head of the Department is the Director-General of Education, assisted by two Deputy Directors-General of Education and Directors of Primary Education, Secondary Education, Educational Services and Resources, and Administration and Finance. A Director of Further Education heads the Department of Further Education which is concerned with technical colleges and adult education. The Education Department employs some staff for Northern Territory Schools but this responsibility is being assumed progressively by the Commonwealth Government.

The work of the schools is materially assisted by the school councils and committees, and also by the mothers clubs, parents and friends associations and welfare clubs. These bodies have for many years been instrumental in raising large sums for the purchase of additional amenities for the schools.

In country areas many children are conveyed to State schools by free bus services provided by the Education Department. At the end of 1972 there were 690 bus services carrying an average of 24,800 pupils daily to 312 schools.

Although private primary schools largely follow the State schools in their curricula, the Education Department exercises no formal authority over these schools beyond requiring them to submit certain statistical returns relating to compulsory attendance. The similarity between courses in the State and private secondary schools is because of the influence of the Public Examinations Board of South Australia syllabus and the close liaison of the administration and teachers of both types of school.

The Catholic school system is organised on a diocesan basis, South Australia being divided into two dioceses, Adelaide and Port Pirie. Within the former, supervision is exercised by the Archbishop through the Director of Catholic Education and co-ordinators of Religious Education, Secondary Education and Primary Education; within the latter, by the Bishop through his Director of Catholic Education.

The State Government now pays a grant of \$10 a year for each primary and \$20 for each secondary student liable to pay fees at an approved private school. In 1972, additional payments varying from \$10 to \$24 a student were made to 138 schools catering for primary students and from \$10 to \$30 a student to fifty schools catering for secondary students where special need had been established.

Schools

Details of schools operating in South Australia in 1972 are given in the next table. The average size of State schools has increased rapidly since 1940 partly as a result of the consolidation of country schools. The 615 State schools in 1972 compared with 1,043 in 1940 and 1,108 in the peak year of 1935. In 1940 there was an average of 73 pupils to each State school, with this figure increasing

to 125 by 1950, 255 by 1960 and 381 by 1972. There has been a similar movement in the average size of private schools.

**Schools by Size, South Australia
At 1 August 1972**

Pupils on Roll	State Schools					Private Schools
	Primary	Primary-Secondary	Secondary	Special (a)	Total	
Under 21	29	—	—	2	31	8
21 to 35	48	—	—	9	57	4
36 to 100	103	6	—	19	128	30
101 to 200	41	7	4	2	54	56
201 to 300	29	14	11	—	54	21
301 to 400	24	13	9	1	47	16
401 to 600	56	8	21	—	85	15
601 to 800	57	2	15	—	74	7
801 to 1,000	30	1	11	—	42	6
1,001 to 1,200	11	—	9	—	20	—
1,201 to 2,000	5	—	18	—	23	—
Total	433	51	98	33	615	163

(a) Occupation centres, schools at institutions, subsidised schools and schools for Aborigines.

Teachers

The numbers of teachers employed in primary and secondary schools in recent years are shown in the following table.

Teachers, South Australia

At or about 1 August	State Schools				Private Schools			
	Full-time		Part-time (a)		Full-time		Part-time (a)	
	Males	Females	Males	Females	Males	Females	Males	Females
1968.....	3,854	5,167	21	174	435	884	16	122
1969.....	3,891	5,189	25	203	458	911	23	132
1970.....	3,942	5,376	37	245	477	941	25	161
1971.....	4,126	5,510	75	338	496	984	26	176
1972.....	4,402	5,851	81	433	522	983	29	188
Type of School 1972								
Primary.....	1,542	3,600	4	132	51	497	4	51
Prim-Secondary..	435	421	1	38	322	364	17	104
Secondary.....	2,344	1,682	76	263	147	90	8	27
Special (b).....	81	148	—	—	2	32	—	6

(a) Equivalent full-time units of part-time teaching. Total part-time teachers at 1 August 1972, State Schools 122 males and 798 females; Private Schools, 89 males and 497 females.

(b) Includes occupation centres, schools at institutions, subsidised schools and schools for Aborigines.

Pupils

Enrolments in recent years, classified by State and private schools and by age of the pupil are given in the following tables.

**Primary and Secondary Pupils, South Australia
At or about 1 August**

Age	At State Schools				At Private Schools			
	1969	1970	1971	1972	1969	1970	1971	1972
5.....	16,771	16,637	16,440	16,323	2,336	2,562	2,620	2,439
6.....	20,407	19,994	19,480	19,336	2,805	2,660	2,781	2,684
7.....	20,175	20,354	19,929	19,806	2,829	2,825	2,822	2,785
8.....	21,011	20,669	20,693	20,173	2,944	2,940	2,848	2,770
9.....	20,864	21,116	20,829	20,583	2,898	2,959	2,996	3,073
10.....	20,446	20,858	21,306	20,892	2,968	3,066	3,225	3,083
11.....	19,709	20,469	20,756	21,233	3,084	3,080	3,156	3,182
12.....	19,211	19,498	20,272	20,601	3,371	3,365	3,437	3,431
13.....	18,947	19,490	19,758	20,451	3,214	3,391	3,381	3,342
14.....	18,429	19,269	19,454	19,692	3,120	3,112	3,263	3,382
15.....	15,238	15,275	16,147	16,364	2,830	3,039	3,088	3,082
16.....	9,809	9,947	10,578	11,022	2,448	2,347	2,417	2,518
17.....	3,898	4,079	4,365	4,428	1,172	1,343	1,191	1,347
18.....		870	1,078	1,176		299	363	262
19.....	1,176	159	225	273	441	65	56	54
20.....		60	65	69		28	21	13
21 and over ..		44	65	100		25	22	18
Total ..	226,091	228,788	231,440	(a)232,812	36,460	37,106	37,687	37,465

(a) Includes 290 age not stated.

A division of enrolments in 1972 between primary and secondary levels is set out in the next table. This table illustrates the relatively greater involvement of private schools at the secondary level where they account for 16.4 per cent of enrolments compared with 12.6 per cent at the primary level.

**Primary and Secondary Pupils, South Australia
At 1 August 1972**

Age	State			Private			Total Pupils
	Primary	Secondary	Total	Primary	Secondary	Total	
5.....	16,323	—	16,323	2,439	—	2,439	18,762
6.....	19,336	—	19,336	2,684	—	2,684	22,020
7.....	19,806	—	19,806	2,785	—	2,785	22,591
8.....	20,173	—	20,173	2,770	—	2,770	22,943
9.....	20,583	—	20,583	3,073	—	3,073	23,656
10.....	20,892	—	20,892	3,083	—	3,083	23,975
11.....	21,203	30	21,233	3,145	37	3,182	24,415
12.....	13,461	7,140	20,601	1,959	1,472	3,431	24,032
13.....	2,136	18,315	20,451	218	3,124	3,342	23,793
14.....	250	19,442	19,692	36	3,346	3,382	23,074
15.....	118	16,246	16,364	13	3,069	3,082	19,446
16.....	103	10,919	11,022	6	2,512	2,518	13,540
17.....	85	4,343	4,428	8	1,339	1,347	5,775
18.....	76	1,100	1,176	2	260	262	1,438
19.....	51	222	273	3	51	54	327
20.....	—	69	69	5	8	13	82
21 and over	—	100	100	3	15	18	118
Total	(a)154,886	77,926	(a)232,812	22,232	15,233	37,465	(a)270,277

(a) Includes 290 age not stated.

PRIMARY EDUCATION

Children normally begin their schooling at the age of five years when they enrol for primary education at either a State or private school (see page 172). Primary education involves a seven year course.

STATE SCHOOLS

Metropolitan children attend primary schools while country children normally attend a primary, rural, area or special rural school, although those in remote areas may receive lessons by correspondence. The table which follows shows the numbers of schools and pupils in the primary division in recent years.

State Primary Education, South Australia

At or about 1 August	Schools		Pupils Enrolled				Total
	Primary	Area (a)	Primary Schools	Area Schools (a)	Corres- pondence School (b)	Other (c)	
1968.....	483	54	141,599	11,466	693	1,573	155,331
1969.....	476	51	144,352	10,200	656	1,605	156,813
1970.....	475	51	144,647	9,976	650	1,649	156,922
1971.....	450	51	144,075	9,716	682	1,985	156,458
1972.....	433	50	142,795	9,411	654	2,026	154,886

(a) Includes also special rural schools. The figures for pupils enrolled include primary pupils only.

(b) Includes Northern Territory pupils, 280 at 1 August 1972.

(c) Includes Aboriginal schools, schools for handicapped children and schools at institutions.

Infant and Primary

In the first two years of school the emphasis is on the child's active involvement in learning. The curriculum is designed to extend children's experience of their environment, through social studies, science and mathematics. It provides for the development of language skills, especially fluency in speech and reading, and creative activities in movement, music, art, drama and writing.

The primary school curricula provide a general framework for the study of English, mathematics, social studies, science, music, art and craft and physical education. Increasingly provision is being made for the study of elective subjects, such as foreign languages, ballet and instrumental music. Time is made available for the churches to provide religious instruction.

Ancillary services and expert advice are provided for primary schools by the Supervisors of School Libraries, Physical Education, Music and Audio-Visual Education and their staffs. There are also consultants in all the basic subjects who visit the schools and conduct in-service courses.

During 1972 there were 105 South Australian schools with open space accommodation, completed or under construction. Nearly 9,000 children were housed in these open space units, which are designed to provide an environment conducive to learning and teaching. More of the units and a number of complete schools came into operation in 1973.

Area and Special Rural

These schools, situated in country centres, cater for both primary and secondary pupils. The primary course is similar to that of the primary schools.

Correspondence

The Correspondence School was started in 1920 to cater for children unable to attend ordinary schools. Most of these children live in remote parts of South Australia and the Northern Territory, but there are others who cannot attend school because of invalidity.

Connected with the Correspondence School are the 'Schools of the Air' at Port Augusta and Alice Springs which provide two-way radio communication between teacher and pupils to supplement the correspondence lessons.

At 1 August 1972 there were 335 boys and 319 girls receiving primary education through the Correspondence School. Of these, 140 boys and 140 girls were living in the Northern Territory.

PRIVATE SCHOOLS

At 1 August 1972, 22,232 children were receiving primary education at private schools. The majority of these children were attending Catholic schools (see table on page 183).

Catholic

Many children receiving primary education in the Catholic school system attend parish schools while the remainder attend colleges run by religious orders—both types of school charge fees.

Parish schools are the property of the parishes which are also responsible for equipping and maintaining them but the schools are usually staffed by religious orders. Elected school boards assist in the financial administration of these schools and determine the fees that will be charged as well as concessions for parents in necessitous circumstances.

Other

Primary schools are conducted by the Church of England, the Lutheran Church, and the Seventh Day Adventist Church. Primary education is also provided in preparatory schools attached to secondary schools run by the Church of England, the Methodist Church and the Presbyterian Church, and at two schools under private ownership.

SCHOOLS FOR HANDICAPPED CHILDREN

The Education Department, through the Psychology Branch, makes provision for children suffering from mental or physical disability. The Psychology Branch provides advice for parents and teachers of backward or problem children, many of whom are helped in the opportunity and remedial classes conducted at some of the large primary schools. There are also sixteen special schools for children with serious mental deficiency, and a senior special school for mentally retarded adolescents.

For children with severely defective hearing there are nine speech and hearing centres, and there is provision for hard-of-hearing children at some ordinary schools. Speech therapists are available to help children with defective speech.

The Education Department conducts schools at Minda Home for the mentally retarded, Townsend House for blind, deaf and dumb children, Somerton Crippled

Children's Home, Estcourt House convalescent home, Adelaide Children's Hospital, Woodville Spastic Centre and the Strathmont Centre. A number of private agencies also provide educational facilities for handicapped children.

SECONDARY EDUCATION

Children who have completed their primary schooling are required by law to attend a secondary school until the end of the term in which they reach their fifteenth birthday. Secondary education may be obtained at either State or private schools.

STATE SCHOOLS

The Education Department provides several kinds of secondary schools. Metropolitan pupils may choose between high schools and technical high schools, but are required to attend schools within the zone in which they reside. In the country, secondary education is provided by high schools in the larger towns, and by high, area or special rural schools in many of the smaller centres. Only one of these schools is located in any one centre. Certain pupils may use the facilities of the Correspondence School for secondary studies.

State Secondary Schools, South Australia

At or about 1 August	High		Technical High		Area (a)		Correspondence Pupils Enrolled (b)	Other Pupils Enrolled (c)
	Number of Schools	Number of Pupils Enrolled	Number of Schools	Number of Pupils Enrolled	Number of Schools	Number of Pupils Enrolled		
1968	59	41,839	30	19,467	54	5,014	143	84
1969	62	44,676	31	19,576	51	4,790	115	121
1970	63	47,216	33	19,545	51	4,915	124	66
1971	67	52,270	30	17,567	51	4,904	141	100
1972	70	56,134	28	16,385	50	5,139	168	100

(a) Includes also special rural schools.

(b) Full correspondence pupils only. Includes Northern Territory pupils, 43 at 1 August 1972.

(c) Pupils receiving secondary education at primary schools, in Aboriginal schools, and in institutions.

Changes and Development

Since 1968 the Secondary Division has pursued a policy of combining in each school the roles previously carried out by separate high and technical high schools. All new schools have been designed as multi-purpose high schools and, where appropriate, existing technical high schools are being converted, renamed and zoned as high schools. Frequently this also involves a change from a separate boys or girls school to a co-educational establishment.

Each high and technical high school still offers the kinds of courses for which it was originally intended, but each has become more flexible by offering other courses that allow for differences in the aspirations and abilities of individual students.

The close connections and inter-relationships between courses offered in the three different kinds of secondary schools is designated by the term 'Track' which denotes the intention of the course and does not necessarily indicate the level of ability of the students.

Track 0 is intended to prepare students for tertiary studies either at a University or for diploma courses at the South Australian Institute of Technology and at present such courses are examined externally by the Public Examinations Board at fourth and fifth year level.

Track 1 indicates that courses generally are internally examined; there is less degree of abstraction in the syllabuses, and the intention is to prepare students for entry to certificate courses at the South Australian Institute of Technology or entrance to some teachers college courses that do not require degree study. These courses have a high vocational intention and prepare students for commercial employment and exacting apprenticeship studies.

Track 2 courses usually are internally examined, and in general, aim to help students take an intelligent interest in the world around them, and prepare them for vocations that require routine activities or for apprenticeship study less exacting than that expected of Track 1 students.

High Schools

High schools are provided in the metropolitan area and in the larger country towns—all except two are co-educational. High schools provide both academic and non-academic courses, with provision for commercial subjects, and instruction in a limited number of craft subjects.

Courses are provided that meet the needs and abilities of all kinds of students. Most students take the general course, designated Track 0, that leads to the Matriculation and is examined externally at fourth year (Leaving) and fifth year (Matriculation) by the Public Examinations Board (PEB).

The breadth of courses sought during the first three years of secondary schooling (the Junior Secondary Curriculum) is believed to be best achieved by offering students as wide a selection of subjects as is compatible with their abilities and interests. For convenience and guidance the subjects are divided into two basic groups. The first, a core group of five subjects, consists of English, social studies, mathematics, science, and a craft, to which is added a selection of two, three or four subjects from a second group called electives. Subjects in this group include such disciplines as foreign languages, further mathematics, science and craft, art, agriculture (in country area schools and high schools), history and/or geography, and music. The number of electives taken will depend upon the facilities available, the ability of the student and his vocational interests.

Opportunities are also given for general experience in some of the elective group of subjects. Instruction referred to as general experience is below the norm in time for that regarded as a full subject, but is sufficient to stimulate and awaken latent interest. General experience subjects may include foreign languages at a conversational level, art, further craft, physical education, music, agriculture and commerce.

The junior secondary levels are regarded as exploratory and aim to provide the student with as wide a range of interests and educational experiences as possible before he commits himself to a particular course of study at the senior level (fourth and fifth year). A selection from the following subjects, English, foreign languages, history, geography, social studies, mathematics, science, art, craft (woodwork in high schools with needlework and metal work offered in a few schools), music, physical education, is possible in the junior curriculum in most high schools.

In the metropolitan area most high schools have matriculation classes and offer a comprehensive range of courses, while in the country most high schools and some area schools have a matriculation class.

The commercial courses (Track 1) may be either examined externally by the Public Examinations Board or internally moderated by the Education Department. A commercial course does not begin until the second year at high school and the core subjects consist of English, commerce, typewriting and shorthand with a choice from such additional general subjects as geography, history, mathematics, or arithmetic and a foreign language; but the extent of this elective group depends upon the facilities within the school. Commercial subjects are not available in high schools after the fourth year (Leaving) level.

Several schools now offer intensive one year courses in commercial subjects which can be commenced after three or four years of general studies. There is a growing tendency to provide fifth year (Track 1) internally examined syllabuses in all secondary schools; this is a logical extension for students who have completed four years of internally examined courses, and desire a further year as preparation for tertiary courses for which matriculation is not a pre-requisite.

Urrbrae Agricultural High School offers an interesting variation to high school practice; this secondary school, located in an Adelaide suburb, specialises in the teaching of agriculture. Agriculture is taught in many country high schools and some area schools, but Urrbrae offers a special secondary education for boys who plan to follow a career in agriculture. The school's syllabus includes agricultural science, farm mechanics, and field work as well as the normal academic subjects. Boys who attend Urrbrae may matriculate for university degree courses and for Roseworthy Agricultural College courses. Courses alternative to those of the Public Examinations Board are provided; a special fourth and fifth year course leads to an Urrbrae Certificate.

Most high schools provide Track 2 courses for students who find the more academic studies of Track 0 and Track 1 too demanding. The Track 2 students concentrate upon syllabuses that have a practical bias and aim to develop skills of communication, computation and understanding necessary to cope with the practical situations of everyday life.

Technical High Schools

Technical high schools combine both an academic and practical education, with a special emphasis upon the various forms of handwork. These schools, as with other secondary schools, offer syllabuses designed for students in Tracks 0, 1 or 2, as well as two further tracks designated 3 and 4 (Track 3 is for slow learners; the syllabuses emphasise remedial work and the essential skills of communication and computation: Track 4 students have handicaps which preclude them from most occupations other than those of a simple routine nature). The majority of students study Track 1 and 2 syllabuses which are internally examined, moderated by the Education Department, and acknowledged by the Secondary School Certificate at fourth and fifth year level, but opportunities are available to those students who elect to study Track 0 syllabuses that lead to matriculation.

Most technical high schools are designed either for boys or girls separately but Adelaide Technical High School and the recently established metropolitan technical high schools are co-educational.

Subjects offered at boys technical high schools include: English, social studies, mathematics, science, arts, crafts, art/craft, and a wide assortment of technical subjects related to the art/craft group (*e.g.* plastics, applied electricity).

Girls technical high schools offer the same kind of core subjects, English, social studies, science and craft, but the elective group emphasises commercial subjects, skills and experience as well as art, craft, and art/craft. The commercial courses are basically vocational and give training in shorthand, typewriting, and commercial practice from second year to fourth year, whilst special secretarial courses are available in a number of schools at the fourth year level.

Area Schools

Area Schools are provided in certain country districts not served by high schools; they cater for both primary and secondary students and are co-educational. In line with secondary policy in high schools and technical high schools these schools offer a Track 0 course as well as a Track 1 or 2 course that is examined internally. The range of subjects offered is more restricted than that available to high schools and technical high schools, but all students have the opportunity to study core secondary syllabuses to fourth year in their own district; English, social studies, mathematics, science and craft form a core to which may be added further mathematics, science or craft, history and/or geography, but no foreign language.

Special Rural Schools

These schools were first established in remote country areas in 1966 with the intention of supplying a limited secondary education in areas where it had been shown that there was an obvious need for secondary education but where the establishment of an area school was not warranted. Courses in these schools are restricted to the core subjects, English, social studies, mathematics, science—sometimes craft where facilities are available, and geography and/or history. Programmes are based on Track 0 syllabuses and the instruction does not proceed beyond third year level.

Correspondence School

Children who are unable to attend a secondary school may receive secondary education through the Correspondence School. Lessons are forwarded to cover nine academic subjects (all to Leaving Certificate standard), and also certain drawing subjects. Assistance may take the form of full correspondence or supplementary courses. Supplementary courses are conducted through a primary school head teacher, who may, in the case of remoteness from secondary school facilities, conduct grades beyond Grade VII. Correspondence lessons are supplemented by radio lessons from the 'Schools of the Air'.

At 1 August 1972 there were sixty-four boys and 104 girls receiving secondary education through full correspondence courses; of these, seventeen boys and twenty-six girls were living in the Northern Territory.

PRIVATE SCHOOLS

Secondary education is also provided by private schools; these schools, for the most part, are identified with various religious denominations. Private secondary schools usually charge fees; however, a limited number of internal scholarships are available and pupils may qualify for certain State scholarships. In addition to normal day attendance many private schools offer boarding facilities for country pupils. Private schools provide academic courses preparing pupils for the PEB examinations, and this determines their academic curricula for fourth and fifth years. Church schools give religious as well as secular education.

Catholic Schools

The Catholic school system provides secondary education at boarding and day colleges in metropolitan and country areas. There are no technical secondary schools, but both general and commercial courses are available to pupils for Leaving and Matriculation examinations. Generally, Catholic secondary schools are the property of the religious communities who conduct them and are supported by the fees charged.

Other Schools

The Church of England, the Methodist Church, the Lutheran Church and the Presbyterian Church all conduct secondary schools for boys and girls in the metropolitan area with most schools having facilities for boarders.

At boys schools, emphasis is on general academic and commercial courses: Scotch College at Mitcham, however, provides in addition agricultural training. Girls schools generally provide alternative courses for those pupils not academically inclined. In addition, all these schools offer a wide range of extra-curricula activities. There are also two non-denominational schools for girls which offer facilities similar to those of the church schools.

Training in typing and shorthand is provided at privately owned business colleges which specialise in this field. A number of these colleges also prepare pupils in certain PEB subjects.

Summary

The following tables give details of all private schools and cover both primary and secondary education.

Private Schools, South Australia^(a)

Year	Number of Schools	Number of Teachers (b)	Pupils on Roll at or about 1 August				Total
			Primary		Secondary		
			Males	Females	Males	Females	
1968.....	171	1,457	10,971	11,843	6,883	6,716	36,413
1969.....	171	1,524	10,835	11,422	7,170	7,033	36,460
1970.....	170	1,604	11,016	11,448	7,408	7,234	37,106
1971.....	169	1,682	11,029	11,640	7,586	7,432	37,687
1972.....	163	1,722	10,870	11,362	7,557	7,676	37,465

(a) Excluding business colleges.

(b) Full-time teachers plus the full-time equivalent of part-time teachers.

In the next table private school pupils are classified according to the denominational affiliation of the school they attended. The predominant contribution of Catholic schools is clearly evident from the table. In 1972 Catholic schools accounted for 80 per cent of primary pupils and 54 per cent of secondary pupils attending private schools.

Pupils at Private Schools, South Australia

At or about 1 August

Denomination of School	1968	1969	1970	1971	1972
Primary:					
Catholic	18,634	18,051	18,108	18,191	17,815
Church of England	1,567	1,492	1,490	1,517	1,438
Lutheran	985	988	1,076	1,078	1,117
Methodist	529	524	531	549	538
Presbyterian and Baptist/ Congregational	615	600	624	625	595
Seventh Day Adventist	114	111	132	137	141
Udenominational	370	491	503	572	588
Total primary	22,814	22,257	22,464	22,669	22,232
Secondary:					
Catholic	6,791	7,208	7,558	7,957	8,265
Church of England	2,522	2,516	2,447	2,435	2,306
Lutheran	560	640	727	778	808
Methodist	1,627	1,680	1,756	1,761	1,683
Presbyterian and Baptist/ Congregational	1,262	1,334	1,308	1,273	1,334
Seventh Day Adventist	51	46	36	30	51
Udenominational	786	779	810	784	786
Total secondary	13,599	14,203	14,642	15,018	15,233

EXAMINATIONS AND SCHOLARSHIPS

Examinations

In addition to internal examinations conducted by the schools there are a number of external examinations.

After four years secondary study the pupil normally sits for the Leaving examination of the Public Examinations Board of South Australia, or for an examination conducted by the Education Department.

The Public Examinations Board conducts a further examination at the completion of the fifth year. Before 1966 this examination had been known as the Leaving Honours examination and while considered a desirable fore-runner to university study had not been compulsory for entrance to the University of Adelaide (matriculation being based on the Leaving examination). Commencing with 1966 this examination became the Matriculation examination.

Before 1966 the PEB had given a certificate for a pass in the required number of subjects at either the Intermediate or Leaving examinations and for a pass in one or more subjects in the Leaving Honours examination. From 1966 the Board has issued to each Intermediate, Leaving and Matriculation examinee a certificate showing the grade achieved in each of the subjects in which examined. The last PEB Intermediate examination was held in 1968. The total number of candidates for examination by the Board in one or more subjects in 1972 were Leaving, 14,798 and Matriculation, 8,786.

Scholarships

The Commonwealth Government, the State Government and various private benefactors provide a variety of scholarships each year for South Australian pupils.

Secondary Scholarships

On the completion of primary schooling, secondary pupils, whether at State or private schools, are entitled to a book allowance of \$22 a year for the first three years, and \$30 and \$32 for the fourth and fifth years respectively. In 1971-72, \$2,092,900 was paid in secondary book allowances. Pupils who have to travel considerable distances to the nearest suitable school, or school bus, may also receive travelling expenses or, if forced to live away from home, a boarding allowance. The boarding allowance is \$180 a year for each of the first four years of secondary schooling increasing to \$230 while studying an approved fifth year course.

Rural Scholarships are provided by the South Australian Government for students who are eligible for a boarding allowance. These scholarships, which are subject to a means test and merit performance, provide up to \$370 a year in addition to the normal boarding allowance.

Fifth Year Scholarships are also provided by the South Australian Government to assist students to complete a fifth year of secondary study. These scholarships are awarded on the basis of merit and pay an allowance of up to \$200 subject to a means test.

In 1965 the Commonwealth Government first introduced the Secondary Scholarships Scheme to cover the last two years of secondary education. In 1973 this form of assistance to students in the senior secondary grades was altered and the number of awards increased. This resulted in 2,529 Commonwealth Senior Secondary Scholarships being offered in South Australia for 1973. These scholarships are awarded on the results of the Commonwealth Secondary Scholarships Examination, prepared by the Australian Council for Educational Research (ACER), combined with an assessment of academic merit provided by schools. Students sit for this examination in July of the third year of their secondary education. The scholarships, which are tenable at any approved State or private school, provide for a basic grant of \$150 each year free of means test. In addition a further grant of up to \$250 is payable each year subject to family income.

Technical Scholarships are offered to pupils in the Leaving year on the basis of results in the ACER examination and are tenable in approved courses at the South Australian Institute of Technology, the South Australian Department of Further Education technical colleges and adult education centres, two secretarial colleges and, in Melbourne, the Australian Ballet School and the Department for Community Welfare Youth Leadership course. The first year of some courses at the Roseworthy Agricultural College and the Torrens College of Advanced Education are also approved for Technical Scholarships, the remaining years of these courses are approved under the Commonwealth Advanced Education Scholarship Scheme. From the beginning of 1968 these scholarships have been offered to pupils in the Matriculation year, to students already enrolled in approved courses, to students with suitable results in other approved examinations and to apprentices who are qualified to enrol in an approved course. Benefits for full-time study comprise a living allowance of \$200 a year, a \$50 text book and equipment allowance and up to \$150 reimbursement for fees paid in each year. For part-time study students receive a \$100 scholarship allowance and reimbursement for fees up to \$100 per year.

At 30 June 1972 there were 1,916 pupils studying with the assistance of secondary scholarships and a further 423 with technical scholarships.

The Commonwealth Government, through the Soldiers' Children Education Scheme, offers assistance at the secondary level to children of ex-servicemen

whose death, blindness or total and permanent incapacity was the result of war service. Eligible children upon reaching twelve years of age qualify for a fortnightly allowance while attending school. Where appropriate a living-away-from-home allowance is also paid and the payment of allowances is subject to satisfactory attendance and progress.

At 1 January 1973 weekly allowances were \$2.60 at ages twelve and thirteen, \$3.90 at ages fourteen and fifteen and \$8.60 at ages sixteen and over, if living at home; and \$8.60 at ages twelve to fifteen and \$13.30 at ages sixteen and over if living away from home. Each pupil aged sixteen and over whose father died before he turned sixteen receives \$11.25 if living at home or \$15.95 if living away from home. The pupil receives guidance and advice on his course of studies from the Soldiers' Children Education Board.

Tertiary Scholarships

The Commonwealth Government, through the Commonwealth Scholarships Board, each year offers four types of scholarships at the tertiary level, namely, University Scholarships, Advanced Education Scholarships, Commonwealth Teaching Service Scholarships and Canberra Teacher Education Scholarships.

University Scholarships are tenable only in approved university courses and are either Open Entrance Scholarships, Later Year Scholarships or Mature Age Scholarships.

Advanced Education Scholarships are tenable only in approved non-university tertiary courses at the South Australian Institute of Technology, Roseworthy Agricultural College, other Colleges of Advanced Education and the Kindergarten Teachers College; these are either Open Entrance or Later Year Scholarships.

Commonwealth Teaching Service Scholarships are available for certain courses which lead to professional teaching qualifications for people wishing to enter the Commonwealth Teaching Service. Canberra Teacher Education Scholarships are tenable only for teacher education courses at the Canberra College of Advanced Education. The Commonwealth Teaching Service Scholarships were introduced for 1972. Only a few Canberra Teacher Education Scholarships are awarded in South Australia.

Commonwealth Tertiary Scholarships, South Australia^(a)

Year	New Awards Accepted			Students in Training at 30 June	Expenditure (Year ending 30 June)		
	University	Advanced Education	Total		Fees	Living Allowance	Total
1968.....	829	100	929	2,595	\$ 1,058,092	\$ 561,017	\$ 1,619,109
1969.....	912	151	1,063	3,000	1,013,772	656,580	1,670,352
1970.....	1,088	286	1,374	3,358	1,242,393	819,361	2,061,754
1971.....	1,198	207	1,405	3,671	1,530,268	1,061,708	2,591,976
1972.....	1,182	413	1,595	4,107	1,761,541	1,244,387	3,005,928

(a) Includes pupils who live in Northern Territory and sit for the PEB examinations.

Students awarded a Commonwealth scholarship are entitled to the payment of certain fees and allowances without a means test. In addition, full-time students may be granted a living allowance in accordance with a prescribed means test. At 1 January 1973 the maximum annual allowance was \$800 for a student living at home and \$1,300 for a student living away from home.

Students under the Soldiers' Children Education Scheme may receive a basic annual allowance of \$700, plus all fees, travelling expenses and costs of necessary text books and equipment while undergoing tertiary education. Additional expenses are paid if the student is living away from home or supporting a family.

Soldiers' Children Education Scheme, South Australia^(a)

Year	Number of Beneficiaries in Training (b)				Expenditure on Benefits		
	Primary and Secondary	Tertiary	Industrial	Total	Allowances	Fees, Books, Equipment and Fares	Total
					\$	\$	\$
1967-68 ..	637	148	154	939	191,282	57,030	248,312
1968-69 ..	585	158	132	875	221,269	66,828	288,098
1969-70 ..	540	157	130	827	218,000	71,978	289,978
1970-71 ..	531	158	110	799	226,000	75,262	301,262
1971-72 ..	508	134	113	755	260,602	78,956	339,558

(a) Includes Northern Territory. (b) Beneficiaries twelve years and over. Number at end of year.

Subject to income limits, students undergoing industrial training receive a basic allowance of \$2.65 per week plus the cost of Trade School requisites.

The University of Adelaide and the Flinders University award a number of prizes, grants and scholarships each year, details of which are given in the Calendars of the respective Universities. Many students also receive assistance at the tertiary level through studentships offered by government departments and private firms (for teaching studentships see page 203).

The South Australian Government's Fees Concession Scheme provides financial assistance in the form of a loan only or of a combination of loan and grant to eligible students (at the Universities or undertaking tertiary courses at the South Australian Institute of Technology) whose fees are not met by scholarships, cadetships or similar awards, or by employers. Eligibility for and the amount of assistance are determined in accordance with a prescribed means test. The nature of the course determines the form of assistance.

TERTIARY EDUCATION

THE UNIVERSITY OF ADELAIDE

The University was founded by Act of Parliament in 1874 and began its academic work in 1876. From its inception it admitted women on equality with men. Its original staff was four professors, three part-time lecturers and a registrar-librarian. Students in 1876 numbered eight undergraduates and fifty-two others, and the curriculum was confined to arts and science. Within a decade

law, music and medicine were added; in 1888 studies in engineering were instituted in collaboration with the South Australian School of Mines and Industries; and at the turn of the century the University broke new ground for Australian universities by founding a conservatorium of music and by instituting studies in commercial subjects. Between the two wars the Waite Agricultural Research Institute and faculties of dentistry and economics were established, studies in agricultural science and engineering greatly developed, and diploma courses in pharmacy, public administration and physical education instituted.

The governing body of the University of Adelaide is the Council, comprising the Chancellor and the Vice-Chancellor (*ex officio*), twenty-two members elected by a Convocation of Electors, four members elected by the undergraduates and five members appointed by Parliament. The principal advisory committees of the Council are the Education Committee and the Finance Committee each of which is appointed by the Council. There is also the usual university structure of faculties, boards of studies and special committees to advise on particular aspects of the University's work.

Details of income and expenditure for the period 1968 to 1971 are shown in the following table.

The University of Adelaide, Finance^(a)

Particulars	1968	1969	1970	1971
	\$'000			
Income for capital purposes:				
Commonwealth Government	667	216	1,346	1,305
State Government	667	201	1,346	1,305
Income for other purposes:				
Commonwealth Government	4,668	4,524	5,322	5,676
State Government	5,035	5,156	5,924	6,612
Student fees	1,379	1,428	1,689	1,837
Other	1,328	1,364	1,730	1,944
Total income	13,743	12,889	17,357	18,679
Expenditure:				
Teaching and research	9,493	9,509	11,506	11,710
Administration	813	918	1,098	1,221
Libraries	593	720	782	853
Buildings, premises, grounds	1,518	1,479	3,714	3,972
Other	1,484	728	480	539
Total expenditure	13,901	13,353	17,580	18,296

(a) Includes Waite Agricultural Research Institute.

In 1973 the University has 12 faculties: arts (10 departments); economics (2); science (11); agricultural science (6); engineering (4); medicine (7); law; mathematical sciences (5); music; dentistry; architecture and town planning; and technology and applied science. Higher degrees are provided in all faculties except technology and post-graduate diploma courses are provided in applied psychology, computing science and education.

Intending students are normally required to have passed the Matriculation examination at a prescribed overall standard. Interstate and overseas students, however, may be accepted on alternative qualifications.

The period of study ranges from three years for certain degree and diploma courses to six years for medicine. Fees for full-time students were increased in 1972 to approximately \$475 a year for a student taking an arts-type course, \$530 a year for a science-type course, and \$560 a year for dentistry and medicine. These fees entitle students to tuition and access to the Library and to the various facilities of the University Union and the Sports Association. Students, however, may obtain financial assistance in a number of ways; see pages 183-6. Provision is also made in certain faculties for part-time students who pay reduced fees on a subject-taken basis.

The original full-time academic staff of four in 1876 had grown by June 1972 to 66 professors, 73 readers, 188 senior lecturers, 143 lecturers, and 90 tutors and demonstrators. Teaching by part-time staff amounted in 1972 to 60,900 hours. Part-time staff were mainly engaged in large first-year science classes involving laboratory work and in the faculties of engineering, law, medicine and dentistry.

Details of student enrolments are given in the next two tables.

The University of Adelaide, Enrolments^(a)

Course	1968	1969	1970	1971	1972
Higher degree candidates (b)	747	835	852	966	996
Undergraduate, diploma, certificate and miscellaneous students:					
Agricultural science	180	202	195	202	194
Applied science	199	203	150	100	47
Architecture	180	187	186	180	166
Arts	2,564	2,629	2,565	2,672	2,787
Dentistry	202	209	182	206	235
Economics	465	475	498	545	544
Engineering	532	555	561	610	625
Law	366	352	382	450	477
Medicine	617	606	571	593	617
Music	80	88	97	103	125
Pharmacy (degree)	137	130	89	47	17
Science	1,376	1,351	1,382	1,495	1,500
Technology	592	505	347	225	111
Pharmacy (diploma)	16	—	—	—	—
Physical education	132	101	61	23	6
Physiotherapy	82	90	57	32	11
Social studies	23	10	2	—	—
Miscellaneous (SAIT) (c)	101	63	91	81	103
Elder Conservatorium (d)	292	283	296	207	210
Visiting students (e)	—	—	—	—	18
Total	8,883	8,874	8,564	8,737	8,789

(a) Each student is counted once only; in the category appropriate to his principal course.

(b) Includes Master's qualifying candidates.

(c) Students enrolled in subjects as part of a diploma course at the South Australian Institute of Technology.

(d) Students not also enrolled for degree or diploma subjects.

(e) Students enrolled at another university, who may subsequently qualify for a degree of that other university, but who are undertaking part of their degree work at the University of Adelaide.

The University of Adelaide, Enrolments, 1972^(a)

Course	New Students (b)	All Students				
		Full-time	Part-time	External	Staff	Total
Higher degree candidates	203	542	214	92	106	954
Master's qualifying candidates	15	9	30	3	—	42
Undergraduate, diploma, certificate, and miscellaneous students:						
Agricultural science	58	172	22	—	—	194
Applied science	—	25	21	1	—	47
Architecture	44	142	24	—	—	166
Arts	488	1,404	1,267	116	—	2,787
Dentistry	27	209	26	—	—	235
Economics	138	309	235	—	—	544
Engineering	170	567	58	—	—	625
Law	128	421	55	1	—	477
Medicine	45	615	2	—	—	617
Music	40	98	27	—	—	125
Pharmacy	—	16	1	—	—	17
Science	388	1,266	232	2	—	1,500
Technology	—	31	80	—	—	111
Physical education	—	—	5	1	—	6
Physiotherapy	—	11	—	—	—	11
Misc. (SAIT) (c)	—	—	103	—	—	103
Elder Conservatorium (d) . .	72	—	210	—	—	210
Visiting Students (e) . . .	—	1	17	—	—	18
Total	1,816	5,838	2,629	216	106	8,789

(a) Each student is counted once only; in the category appropriate to his principal course.

(b) Figures for undergraduate courses exclude students who have transferred from another undergraduate course either in this or another university, or who are commencing a second course.

(c) Students enrolled in subjects as part of a diploma course at the South Australian Institute of Technology.

(d) Students not also enrolled for degree or diploma subjects.

(e) Students enrolled at another university, who may subsequently qualify for a degree of that other university, but who are undertaking part of their degree work at the University of Adelaide.

During the last decade significant changes have occurred in the composition of the student body. The proportion of full-time students has steadily risen, and the proportion taking part-time studies has steadily declined. The most significant change, however, has been in the numbers of students proceeding to honours and higher degrees and postgraduate diplomas; here the rate of growth is considerably more than that of undergraduate enrolments.

From its inception until the end of 1972 the University had conferred 21,541 degrees and 7,239 diplomas by examination. The growth of the University in recent years is indicated by the number of degrees and diplomas awarded in 1972 which totalled 1,693, compared with 798 in 1962.

The controlling body of student activities outside the classroom is the Union Council, comprised almost wholly of members elected annually by the ordinary (*i.e.* student) members of the Union. The Union Council receives the annual fee of \$48 (\$24 for part-time students) payable by all students proceeding to a degree or diploma; from this income it makes grants to the Sports Association for the maintenance of nearly forty sporting clubs, to the Clubs and Societies Council for the support of some fifty student societies and to the Students Association. It is also responsible for the Union buildings, including the three refectories and Union Hall. During 1970 and 1971 the Union buildings underwent an extensive

rebuilding and expansion programme which resulted in a total area of about 67,000 sq ft of floor space; the playing fields available to the Sports Association cover about 60 acres. Further rebuilding of the Union and substantial expansion of the playing fields will take place during 1973-74.

Residential Colleges

The residential colleges are independent bodies affiliated with the University. Three of the four colleges for undergraduates were founded by churches, but impose no denominational restrictions on admission; the fourth undergraduate college and the college for postgraduate students have no denominational affiliation. All are situated in North Adelaide within easy walking distance of the University. Their names, church affiliations, years of founding and residential capacities are:

St. Mark's	Church of England . . .	1925	146 students, 11 tutors;
St. Ann's	Non-denominational . .	1947	121 students, 8 tutors;
Aquinas	Catholic	1948	95 students, 12 tutors;
Lincoln	Methodist	1952	160 students, 15 tutors;
Kathleen Lumley . .	Non-denominational (postgraduate)	1968	70 students.

St. Mark's and Aquinas colleges confine their membership to men; in 1973 St. Ann's and Lincoln have made their facilities available to both men and women. Kathleen Lumley has been co-residential since its foundation.

The Library

The central library of the University is named the Barr Smith Library in honour of its original benefactor, Robert Barr Smith, and his son, Tom Elder Barr Smith. During his life Robert Barr Smith provided funds for the purchase of books and members of his family gave the University a substantial donation in 1920 in his memory. Tom Elder Barr Smith provided the first part of the present building in 1930 at a cost of nearly \$70,000.

The central library includes the medical library. In addition there are branch libraries for law and for music and at the Waite Agricultural Research Institute. Borrowing facilities are available to staff, students and graduates.

Holdings at the end of 1972 were as follows: central library 518,000 volumes (including medical library 69,000); law library 34,000; music library 6,000 (and 11,000 pieces of music in sheets); and the Waite Agricultural Research Institute 28,000; making total holdings of 597,000 volumes. In addition, the Library held the equivalent of 48,000 volumes in microform.

During 1972 the Library made 226,000 loans to students, staff and graduates; 16,000 to other libraries in South Australia; and 6,000 to libraries in other States. It received 2,700 loans from other libraries. Accessions totalled 32,300 volumes and the equivalent of 1,400 volumes in microform, while withdrawals numbered 640 volumes. Serials titles received exceeded 17,600. Expenditure from University revenue on staff, books, serials and binding and for other library purposes amounted to \$904,800 or 6.4 per cent of total university revenue expenditure.

The Waite Agricultural Research Institute

The Waite Agricultural Research Institute was established, within the University of Adelaide, in 1924. The foundation of the Waite Institute was made possible by a gift of land and property at Glen Osmond together with an endowment from Mr Peter Waite. The Institute has received a number of endowments subsequent to this original gift and these have been used to assist in the establishment of

additional laboratories and other research and teaching facilities. A gift of about 700 acres of land at Mintaro, near Clare, has enabled the development of the Mortlock Experiment Station which provides additional field facilities for the Institute for its research and postgraduate training programmes in the animal, pasture, and crop sciences.

As part of the University of Adelaide the Institute is financed in large measure from the Commonwealth and State Government grants made on the recommendation of the Australian Universities Commission. The research programmes at the Institute have also attracted a very satisfactory measure of support from other sources, notably primary industry bodies such as the Australian Wool Board, the Wheat Industry Research Council, Wheat Industry Research Committee of South Australia, Barley Improvement Trust Fund and the Australian Meat Research Committee. Between 20 and 25 per cent of the total Waite Institute budget comes from these sources.

The Institute contains six departments, each headed by a professor, namely Agricultural Biochemistry and Soil Science, Agronomy, Animal Physiology, Entomology, Plant Pathology and Plant Physiology. For its first forty years the Institute centred its research and teaching activities on the plant and soil sciences but recognition of the growing importance of the livestock industries in Australia led to the introduction of animal studies culminating in the establishment in 1964 of the Department of Animal Physiology.

The six departments are responsible for teaching the last two years of the four-year undergraduate course leading to the degree of Bachelor of Agricultural Science, the first two years being provided by appropriate science departments of the University. The Waite Institute is noted for the development and maintenance of a strong postgraduate school in which students from all over Australia and many countries overseas, especially the developing countries, are enrolled.

The Elder Conservatorium of Music

The University established a Chair of Music in 1884 and, with the assistance of an endowment by Sir Thomas Elder, a Conservatorium of Music in 1898. In addition to full degree courses in practical studies, musicology, and composition, the University School of Music provides instruction in the various branches of musical performance for part-time students.

Concert experience for students is provided through regular informal concerts internal to the Conservatorium and by public concerts given from time to time. The University Music Society arranges each year a series of night concerts by members of the staff, who provide also a series of Sunday afternoon public concerts and recitals during the winter months.

In 1972 there were 126 students proceeding to the degree of Bachelor of Music and 210 students taking single-subject practical studies.

Department of Adult Education

This department offers a range of courses for members of the general public (see page 201).

Other Special Features

Unusual features of the University's work include its extensive research into the linguistics, myths, legends and musicology of the Aborigines; teaching and research in Computing Science ranging from first year undergraduate level to the Doctorate of Philosophy; the Mawson Institute for Antarctic Research (which also takes postgraduate students); upper atmosphere research by balloon and rocket; mineral exploration; and arid zone studies.

THE FLINDERS UNIVERSITY OF SOUTH AUSTRALIA

During 1958 when the University of Adelaide began to plan two major new buildings on its existing 30-acre site it became apparent that further expansion would have to take place elsewhere.

Early in 1961 the South Australian Government indicated that it would make available to the University of Adelaide an area at Bedford Park, of some 370 acres, situated about seven miles from the centre of Adelaide in the foothills of the Mount Lofty Ranges. Consequently the University of Adelaide made a submission for financial support to the Australian Universities Commission in 1962, which gave approval for the planning of Bedford Park. The institution became known as 'The University of Adelaide at Bedford Park'. Towards the end of 1965 the South Australian Government decided to make The University of Adelaide at Bedford Park a fully autonomous university under the name 'The Flinders University of South Australia', after the great explorer and hydrographer, Matthew Flinders. A more detailed history of the Flinders University was included on pages 163-8 of the *South Australian Year Book* 1967.

The Flinders University of South Australia Act came into force on 1 July 1966. The Act places the whole management of the University in the hands of a Council with powers to make statutes and regulations subject to the approval of Convocation which comprises the graduates of the University, graduates of other universities who have been awarded a diploma of the University and full-time members of the staff. The Council comprises twenty-seven members: The Chancellor; the Vice-Chancellor; the Director-General of Education; five members of Parliament elected by Parliament; a nominee from each of the Chamber of Commerce and Industry, the Trades and Labor Council, and the Government; two professors and two non-professional academic staff members elected by the academic staff; the President of the Students Representative Council; eight members elected by Convocation; and up to three members co-opted by the Council.

Details of income and expenditure for the period 1968 to 1971 are shown in the following table.

The Flinders University of South Australia, Finance

Particulars	1968	1969	1970	1971
	\$'000			
Income for capital purposes:				
Commonwealth Government	769	479	842	884
State Government	769	479	842	884
Income for other purposes:				
Commonwealth Government	1,010	1,120	1,524	1,886
State Government	1,484	1,643	2,156	2,654
Student fees	181	227	338	379
Other	75	159	178	218
Total income	4,288	4,108	5,879	6,904
Expenditure:				
Teaching and research	1,924	2,201	2,869	3,534
Administration	315	377	459	553
Libraries	308	339	446	527
Buildings, premises, grounds	1,633	1,431	1,845	2,305
Other	35	41	60	189
Total expenditure	4,215	4,390	5,679	7,109

The first academic year of the University began in 1966, with enrolments of 382 first-year undergraduates and 35 graduate students. Details of enrolments for the years 1969 to 1972 are shown in the following tables.

The Flinders University of South Australia, Enrolments

Course	1969	1970	1971	1972
Bachelors degrees:				
Arts	697	796	878	1,035
Science (a)	457	591	640	679
Economics	105	165	181	220
Education	63	96	140	168
Postgraduate diplomas:				
Social administration	31	32	43	61
Education	36	58	81	90
Higher degree (including master's qualifying)	138	155	155	227
Miscellaneous	10	16	27	30
Other	—	—	—	35
Total	1,537	1,909	2,145	2,545

(a) Includes the following numbers of students who intended to transfer to the University of Adelaide at the end of their first year: 1969, 74; 1970, 127; 1971, 129; 1972, 135.

The Flinders University of South Australia: Enrolments, 1972

Course	New Students	All Students		
		Full-time	Part-time	Total
Arts	465	841	194	1,035
Science	313	623	56	679
Economics	74	172	48	220
Education	—	127	41	168
Higher degrees	79	117	75	192
Master's qualifying	19	4	31	35
Postgraduate diplomas	119	131	20	151
Miscellaneous	25	2	28	30
Other	—	26	9	35
Total	1,094	2,043	502	2,545

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 professors of each school is appointed to act as the chairman of the school.

At present there are six schools: the Schools of Humanities; Social Sciences; Mathematical Sciences; Physical Sciences; Biological Sciences; and Medicine. The School of Biological Sciences is an integrated one; there are no divisions into the traditional disciplines of botany, zoology, micro-biology, etc., the emphasis being on the manner in which the teaching and research are organised, e.g. cellular biology, molecular biology. The remaining schools have a total of twenty-one disciplines established within them.

The establishment of full-time staff of the University at 1 January 1973 is shown in the following table.

**The Flinders University of South Australia,
Full-time Staff Establishment, 1973**

Schools:	
Academic (teaching and research)	240
Technical	86
Clerical	61
Library:	
Professional	24
Other	34
Registry:	
Senior administrative	36
Clerical	53
Caretaking, grounds and maintenance	59
Student services:	
Professional	4
Other	5
Total	602

The Library

The acquisition of books for the library commenced in 1963 when the first library staff were appointed. By the time teaching began in 1966 a collection of some 60,000 volumes had been assembled. At the end of 1972 the collection totalled 224,000 volumes and approximately 28,000 volumes are being added each year; 5,900 periodicals are currently received. Emphasis is placed on the acquisition of material to support the current teaching and research programmes of the University. Loans to staff and students during 1972 totalled more than 89,000.

Admission to the University

Students must have qualified for matriculation by passing the Matriculation Examination of the Public Examinations Board in a prescribed manner, and must be selected by the University. Flinders University, the University of Adelaide and the South Australian Institute of Technology have established an Admissions Office for Higher Education to which all students wishing to enter any of these institutions must apply for admission. Selection for admission is based, as far as practicable, on academic merit.

Annual fees in 1973 for full-time students are \$396 for Arts, Economics and Education, \$444 for Science and \$202 for higher degrees. All full-time students also pay a student services fee of \$66 a year for membership of the Union and for participation in its activities.

Degrees Offered

The University offers the following degrees; Bachelor of Arts, Bachelor of Economics, Bachelor of Education, Bachelor of Science, Master of Arts, Master of Arts (Drama), Master of Economics, Master of Education, Master of

Psychology, Master of Social Administration, Master of Science, Doctor of Philosophy, Doctor of Letters and Doctor of Science. In addition there are post-graduate diplomas in social administration and education.

The structures of the degree courses in arts and science differ materially from those in most other Australian universities. The degree courses are built upon the principle of offering the students a choice of a limited number of 'programmes', rather than allowing students to aggregate credits for individual subjects. The programmes are designed so that a student will pursue the major part of his studies within one school. The performance of a student is assessed on his whole year's work and results are not awarded in individual subjects. In general the whole of the work prescribed for one year of a degree or diploma must be satisfactorily completed before a student proceeds to any part of the subsequent year's work.

The Flinders Institute of Atmospheric and Marine Sciences

In November 1972 the Council of the University approved the establishment of the Flinders Institute of Atmospheric and Marine Sciences. The Institute is the successor of the Horace Lamb Centre for Oceanographical Research, and will continue the University's interests in physical oceanography. It also reflects the University's decision to widen the scope of activity considerably.

The Institute will co-ordinate contract and consulting work in many areas of the environmental and earth sciences. The Director of the Institute, for the time being, will be elected by the members.

It is intended that the Institute will 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. In addition the Institute is expected to play a useful role in introducing senior year undergraduate students and postgraduate research scholars to some of the scientific needs of the community.

Institute of Labour Studies

An Institute of Labour Studies has been established in the School of Social Sciences with the purpose of encouraging graduate study, research and publication in the areas of industrial relations, labour economics, industrial psychology and sociology, and labour history.

The Institute is administered by a Management Committee comprising a Director, research associates and four persons outside the University. The first research associates to be appointed are members of staff of the School of Social Sciences who are active in labour studies.

University Hall

University Hall, the University's first hall of residence was completed early in 1971. It provides accommodation for nearly 200 students, mostly in single furnished study bedrooms. The Hall is also available for use by outside bodies during the University vacation.

ADVANCED EDUCATION

The South Australian Board of Advanced Education was established under the South Australian Board of Advanced Education Act, 1972 to function as a co-ordinating body for Colleges of Advanced Education in South Australia.

The Board is responsible for the development of a balanced system of tertiary education (outside the universities) to meet the needs of South Australia for

persons qualified in a wide range of vocations. The Board is the State accrediting authority for awards in advanced education; it exercises financial supervision over the capital and recurrent budgets of the Colleges; and it is responsible for forward planning in advanced education in South Australia.

The Board is empowered to negotiate and co-operate with the Australian Commission on Advanced Education, the Australian Council on awards in Advanced and other national bodies concerned with tertiary education.

The Colleges are the South Australian Institute of Technology; Roseworthy Agricultural College; South Australian School of Dental Therapy; Torrens College of Advanced Education (incorporating Western Teachers College and the South Australian School of Art); Adelaide College of Advanced Education (formerly Adelaide Teachers College); Murray Park College of Advanced Education (formerly Wattle Park Teachers College); Salisbury College of Advanced Education (formerly Salisbury Teachers College); and Sturt College of Advanced Education (formerly Bedford Park Teachers College).

THE SOUTH AUSTRALIAN INSTITUTE OF TECHNOLOGY

The South Australian Institute of Technology, which adopted its present name in 1960, was established in 1889 as the South Australian School of Mines and Industries.

After its inception there was co-operation between the University of Adelaide and the School, and in 1903 joint engineering courses were established. An important development in the history of technical education came in 1957 with an agreement between these institutions whereby certain courses of study at the School would lead to the degree of Bachelor of Technology at the University. Other degree courses have subsequently been introduced. Current government policy aims at the independent development of Colleges of Advanced Education and the last degree students under the joint arrangement with the University of Adelaide were enrolled in 1969. The South Australian Institute of Technology Act was revised in 1972 and the Institute is now empowered to grant its own degrees. The first of these awards was made at the 1973 graduation ceremony.

The Institute maintains a close and harmonious relationship with the Education Department and the Department of Further Education, and since 1959 there has been a progressive transfer of control of activities. Classes up to and including Matriculation level and all trade classes were transferred to the control of the Education Department, as was the Adelaide Technical High School in September 1963.

The Department of Further Education is progressively taking over technician courses from the Institute and this has enabled the Institute to expand its work in the professional and more advanced semi-professional fields. In addition to its campuses at North Terrace, City, and The Levels (approximately eight miles north of the city), the Institute operates a centre at Whyalla teaching at both professional and semi-professional level.

The Institute is administered by a Council which has complete authority within the limits of the finance placed at its disposal and for which it is responsible annually to Parliament. The autonomy provided by this feature of control for many years made the Institute unique among Australian technical institutes, but in recent years, the interstate colleges have been granted autonomous government.

Details of income and expenditure for the period 1968 to 1971 are shown in the following table.

South Australian Institute of Technology, Revenue and Expenditure

Particulars	1968	1969	1970	1971
	\$'000			
Income for capital purposes:				
Commonwealth Government	1,017	1,209	1,599	2,131
State Government	995	1,386	1,565	2,085
Other	33	26	27	39
Income for other purposes:				
Commonwealth Government (a)	527	993	1,072	1,290
State Government (a)	1,130	1,063	1,678	2,404
Fees from students	639	683	787	812
Other	28	33	37	63
Total income	4,369	5,393	6,765	8,824
Expenditure:				
Capital (land, buildings, plant, furniture and equipment)	2,256	2,485	3,334	3,825
Revenue	2,390	2,838	3,735	4,574
Total expenditure	4,646	5,323	7,069	8,399

(a) Includes amounts transferred to Capital Account for equipment and furnishings purchased—1968 (53), 1969 (43), 1970 (33), 1971 (49).

A wide range of courses and subjects to varying levels is offered; some courses lead to the award of a degree of the University of Adelaide (this arrangement is to be discontinued) or a degree, diploma or certificate by the Institute. Of twenty-six Diploma in Technology courses offered in Adelaide in 1972, twelve were parallel with and identical to courses leading to degrees in Technology or Applied Science of the University of Adelaide.

Diploma and certificate courses applicable to local needs are conducted at Whyalla by the Institute and other courses are conducted at Woomera.

South Australian Institute of Technology, Students and Staff

Particulars	1967	1968	1969	1970	1971	1972
Students:						
Individual enrolments	10,637	8,837	8,031	6,755	6,103	5,732
Subject enrolments ..	20,360	19,296	18,509	17,307	17,215	16,631
Full-time teaching staff	166	194	219	228	251	266
Part-time teaching staff	335	349	460	598	600	643

In 1972, the Institute conducted about 600 classes. Of the 5,732 individuals enrolled in 1972, 3,176 were taking professional courses, and 2,503 certificate level courses. The remaining 53 students were not enrolled in full courses.

The majority of students attending the Institute do so on a part-time basis. There were 1,404 full-time students in 1972.

ROSEWORTHY AGRICULTURAL COLLEGE

Roseworthy Agricultural College was opened to students in 1883 and is the oldest of Australia's agricultural colleges. It is situated 51 kilometres north of Adelaide in better class mallee country, the average annual rainfall being 437 millimetres. The total area of the College farm is 1,199 hectares, including buildings, grounds, vineyards and orchard; 500 hectares are cropped annually and about 200 hectares fallowed.

Studs are conducted for cattle (Jersey and Poll Shorthorn), sheep (Merino and Poll Dorset), and pigs (Berkshire and Large White). The College is involved in research and experimental work applicable to the area and in the production of pure seed of wheat and oat varieties suitable for South Australia. A major wheat and oat breeding programme is also conducted.

The College issues diplomas known as the Roseworthy Diploma of Agriculture (RDA), Roseworthy Diploma of Oenology (RDO) and Roseworthy Diploma of Agricultural Technology (RDAT).

Students entering the RDA course must be at least sixteen years of age on 1 January of the year of entry and have passed the Leaving examination in five subjects. Applicants for the RDO course must have completed the first two years of the RDA course or else have passed at Matriculation level in specified subjects, and spent one year gaining practical experience in a winery. RDAT applicants must have passed the RDA at or above a prescribed level.

At 30 June 1972 there were 157 students in residence at the College.

FURTHER EDUCATION

In 1972 the Department of Further Education was established to take over certain educational responsibilities from the Education Department. The newly created Department now administers the South Australian College of External Studies (formerly the Technical Correspondence School), apprentice training in technical colleges and adult education.

SOUTH AUSTRALIAN COLLEGE OF EXTERNAL STUDIES

The South Australian College of External Studies (formerly the Technical Correspondence School) provides courses for external students in a wide range of secondary and post-secondary subjects.

Tuition is provided in accountancy and other commercial courses, technical and trade courses, secondary school subjects up to matriculation level, and vocational and leisure interest courses. An important aspect of the College's work is the provision of apprentice training in thirteen trades for country apprentices who are unable to attend a technical college. The college also provides tuition for prisoners at Yatala and other gaols.

In 1972, 5,277 persons including 891 apprentices were enrolled with the then, Technical Correspondence School.

TRADE EDUCATION

Legislation governing apprenticeships in South Australia is contained in the Apprenticeship Act, 1950-1971 which is administered by an Apprenticeship Commission consisting of a full-time chairman and five part-time members representing employer organisations, trade unions and the Minister of Education.

An employer must receive the approval of the Commission before he can employ an apprentice. The Commission determines the term of indenture in any particular trade and no term can exceed four years. In the following table the number of new apprenticeships commenced for the period 1968 to 1972 are given for the major industry groups.

Number of New Apprenticeships Commenced: Trade Groups, South Australia

Trade	1968	1969	1970	1971	1972 _p
Metal	1,083	1,193	1,099	1,094	951
Electrical	390	385	404	375	330
Building	221	278	278	349	347
Furniture	91	109	107	122	128
Printing	82	65	82	70	60
Vehicle industry	73	111	95	128	112
Ship and boat-building	18	13	8	12	8
Bootmaking	16	19	18	21	14
Clothing	3	1	3	3	2
Coopering	1	—	1	—	1
Food	139	143	128	189	146
Hairdressing	300	321	296	267	295
Leather and canvas goods	1	5	5	3	—
Miscellaneous	11	12	9	9	15
Total all trades	2,429	2,655	2,533	2,642	2,409

p preliminary

The following table shows the number of new apprenticeships commenced, indentures completed, indentures cancelled, and apprentices employed at 31 December for the years 1968 to 1972.

Apprenticeships, South Australia

Particulars	1968	1969	1970	1971	1972 _p
New apprenticeships commenced.	2,429	2,655	2,533	2,642	2,409
Number of indentures completed.	2,210	2,276	2,215	2,175	2,089
Number of indentures cancelled.	287	284	282	288	298
Number of apprentices employed	10,463	10,439	10,467	10,737	10,682

p preliminary

The technical education of apprentices is the responsibility of the Minister of Education but the Commission has authority to make recommendations to the Minister on matters affecting their technical education.

Apprentices are required to attend technical colleges during working hours for eight hours a week or an eight week course in the first and second year. Exceptions occur for certain trades where the apprentice must attend, during working hours, a technical college for twenty-four hours (three days) for every four weeks the college is open for instruction during the first, second and third years after commencement of his course.

The Department of Further Education makes provision for the technical education of apprentices in technical colleges (of which there are eight in the metropolitan area embracing twelve separate schools and four in the country at Mount Gambier, Port Augusta, Port Pirie and Whyalla), and by correspondence lessons through the South Australian College of External Studies. Theoretical and practical instruction is given in a total of forty-five trades.

Although apprentices are required to attend a technical college to complete basic training (normally three years), facilities are provided for those showing ability, to attend voluntarily for a fourth year. During these years, apprentices normally commence studies of an advanced nature most of which are components of various Post-Trade Certificate courses which the apprentices are encouraged to complete as adults. These advanced subjects, and others designed to meet special demands for training in new processes and techniques, are also available to adult tradesmen and others employed in industry.

Trade Education, South Australia
Number of Apprentices Enrolled in December

Schools	1968	1969	1970	1971	1972
Metropolitan technical colleges . .	6,093	5,893	6,575	6,603	6,250
Country technical schools	802	871	1,012	1,069	992
South Australian College of External Studies (a)	786	705	794	720	865
Total	7,681	7,469	8,381	8,392	8,107

(a) Includes Northern Territory apprentices.

Since 1960 the Commonwealth Development Bank has awarded Post-Apprenticeship Scholarships annually to financially assist young tradesmen and outstanding apprentices to further their education and technical qualifications. The scholarship scheme is administered on behalf of the Bank by the Australian Apprenticeship Advisory Committee. Seventeen of these scholarships were awarded to South Australians for 1972.

ADULT EDUCATION

The Department of Further Education provides for the education of adults in country areas through ten adult education centres and four technical colleges. There are branch classes in 174 towns.

In the metropolitan area classes are conducted in the technical colleges and in seventeen adult education centres. In general, classes are held in the evening but increasing provision is being made for day classes.

The Department of Further Education conducts an Adult Matriculation School which provides facilities for full-time study for mature-aged students who wish to matriculate.

Subjects are also available through the South Australian College of External Studies.

Further Education: Adult Education, South Australia
Number of Subject Enrolments

Centres	1969	1970	1971	1972
Country	18,081	19,899	22,483	22,320
Metropolitan:				
South Australian School of Art ...	889	743	673	717
Technical colleges	9,216	10,159	15,853	17,281
Secondary schools	20,763	21,867	27,168	30,029
Adult Education Centres	3,988	4,658	2,855	3,010
Technical Correspondence School .	5,737	5,491	5,685	5,480
Total	58,674	62,817	74,717	78,837

Workers Educational Association of South Australia

The Workers Educational Association of South Australia Incorporated (WEA) was established in 1914. Patterned on the English WEA, it is a voluntary adult education organisation which works in close co-operation with other adult education organisations.

Activities it organises directly, or in which it provides major assistance to other bodies, include a comprehensive day and evening class programme, postal courses for trade unionists, and an international adult and childrens film festival. It possesses an adult education centre in the city.

In 1972 there were 195 classes with a total enrolment of 7,800 students organised by the WEA, and a further twenty-two postal courses with an enrolment of 2,400.

University of Adelaide: Department of Adult Education

The University initiated adult education classes in 1917, and in 1957 established a Department of Adult Education.

The Department provides lectures and discussion courses, short schools and seminars in a wide range of subjects for members of the general public; in recent years it has conducted television discussions on issues of public concern, latterly in association with the Australian Broadcasting Commission; and it organises seminars on issues of current moment from which, in some cases, publications have arisen. It also arranges special courses for professional people and former graduates.

In June 1972 the University opened an educational radio station under the call sign of VL5UV. Established by an anonymous donation of \$100,000, the station operates under the aegis of the Department of Adult Education and provides formal courses, some of which are associated with undergraduate studies in the University; the majority, however, are designed for members of the public.

Total enrolments for all departmental activities during 1972 were 5,142.

Migrant Education

The Department of Further Education on behalf of the Commonwealth Government conducts classes for migrants who have an inadequate command of the English language. These classes are held at many metropolitan and country centres including migrant reception centres. Tuition is also provided through correspondence courses and radio lessons.

A field officer visits individuals and families in their homes or places of employment to acquaint them with the opportunities for learning English, and to offer to enrol them in one of the classes.

In 1972, 2,746 persons enrolled or re-enrolled for English classes and a further 947 took correspondence lessons.

TEACHER EDUCATION

Kindergarten

The Kindergarten Teachers College is under the control of the Kindergarten Union of South Australia (Inc.).

Trainees undertake a three-year course which includes lectures in a wide variety of subjects in addition to practical experience at kindergartens. Trainees may be granted living allowances by the Kindergarten Union (subject to a bond) or may enter as private students. Upon completion of the course trainees are awarded a diploma.

Trainees also benefit from the facilities of the Lady Gowrie Child Centre which is equipped for observational and experimental work with pre-school children and is associated with the Kindergarten Union through the Australian Pre-School Association.

At the end of 1972, the principal, ten full-time and four part-time lecturers were engaged in the training of 141 students.

Primary and Secondary

From 1 January 1973, the five South Australian Education Department Teachers Colleges became autonomous Colleges of Advanced Education, governed by their Councils under the Board of Advanced Education.

The Education Department continues to admit students to teacher education courses at the Colleges of Advanced Education: Adelaide College of Advanced Education (formerly Adelaide Teachers College); Sturt College of Advanced Education (formerly Bedford Park Teachers College); Salisbury College of Advanced Education (formerly Salisbury Teachers College); Murray Park College of Advanced Education (formerly Wattle Park Teachers College); Torrens College of Advanced Education (formerly Western Teachers College).

Courses are related to the various levels of education or to specialised fields. Primary teachers are trained at Salisbury, Murray Park, Torrens and Sturt Colleges of Advanced Education. Specialist secondary teachers are trained at Torrens, Sturt and Adelaide Colleges of Advanced Education. General secondary trainees are attached to Salisbury College of Advanced Education, where they undertake only internal tertiary studies, or to the Adelaide and Sturt Colleges of Advanced Education which are situated adjacent to the University of Adelaide and the Flinders University of South Australia respectively.

The normal training period for primary teachers is three years. Certain primary teachers, after having completed their normal training, may attend special courses to equip them for teaching handicapped children. Courses for secondary teachers are usually of four years. In addition to the general secondary course there are also specialist courses for teachers of commercial subjects, agriculture, music, physical education, art, home science and crafts.

External facilities, as well as those of the colleges, are used in the education of teachers. Secondary trainees have the opportunity of completing a university degree, and primary training may involve some study at a university or studies

leading to the award of a degree for students at Sturt College of Advanced Education attending Flinders University. In addition, the facilities of the South Australian Institute of Technology, Roseworthy Agricultural College, Waite Agricultural Research Institute, and the Elder Conservatorium of Music are used in the training of specialist teachers. Trainees also attend at certain schools where they observe skilled teachers at work and where they gain practical experience through the preparation and presentation of lessons.

Trainees may enter the colleges as private students; the majority, however, receive free tuition and allowances while training in return for a three-year bond with the Education Department. There are a limited number of unbonded scholarships which do not require the student to teach with the Education Department of South Australia.

Students at Government Teachers Colleges, South Australia^(a)

Classification	1968	1969	1970	1971	1972
Infant	406	420	479	610	603
Primary	1,116	1,186	1,357	1,635	1,688
Secondary:					
General (b)	1,266	1,405	1,499	1,764	1,923
Specialist (c)	725	702	738	883	826
Total	3,513	3,713	4,073	4,892	5,040

(a) Number of students attending for whole or part of the year.

(b) Includes agriculture and music teachers.

(c) Includes commercial, physical education, craft and art teachers.

Private Schools

In the Catholic school system only one religious order, the Sisters of Mercy, receives its training in South Australia. These Sisters attend the Colleges of Advanced Education, the University of Adelaide, and The Flinders University of South Australia. Other teaching members of Catholic orders receive their training interstate.

Except for those mentioned above private schools do not normally train their own teachers but employ persons considered to be suitably qualified.

TRAVEL TO SCHOOL

A sample survey was conducted in May 1970 to obtain information about the principal means of transport by which full-time students of all ages travelled to school, university or other educational institution, the time at which they usually left home and the time usually spent on the journey. Details of the survey were included on pages 194-5 of the *South Australian Year Book 1972*.

STATE EXPENDITURE ON EDUCATION

Details of expenditure by the State Government on education in recent years are given in the next table. The considerable increase in annual expenditure shown in the table has been a continuous process since the end of the 1939-45 War; in 1946-47 total Government expenditure on education was less than \$4.3 million.

State Expenditure on Education, South Australia^(a)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
\$'000					
Expenditure from Consolidated Revenue:					
Primary	23,678	25,846	66,311	80,124	102,147
Secondary	13,004	14,706			
Technical (b)	12,446	14,569			
Kindergarten Union grants ..	542	579	682	813	1,150
University grants	9,965	10,481	11,528	14,085	17,029
Waite Agricultural Research Institute	1,162	1,250	1,321	1,580	
Roseworthy Agricultural College	347	410	419	481	563
Pensions	1,141	1,302	1,395	1,651	2,045
Payroll tax	1,012	1,123	1,341	1,577	429
Miscellaneous	319	496	922	1,180	1,697
Buildings;					
Schools (b)	2,481	2,692	2,502	3,364	4,289
Agricultural College	37	30	16	19	44
Sinking fund payment	1,700	1,722	2,163	2,203	2,021
Interest on loan expenditure ..	5,572	6,044	7,032	7,793	8,291
Total expenditure from Consolidated Revenue ..	73,407	81,250	95,632	114,870	139,704
Receipts:					
Education Department	1,174	1,370	1,677	2,033	2,678
Agricultural College	107	124	156	177	195
Miscellaneous	65	81	88	85	96
Commonwealth grants (c)	5,221	5,654	7,478	8,618	9,452
Total receipts	6,567	7,229	9,399	10,913	12,421
Net expenditure from Consolidated Revenue ..	66,839	74,021	86,233	103,957	127,282
Loan Expenditure:					
Buildings;					
Schools, etc.	8,711	13,295	15,506	17,892	22,315
Agricultural College	36	7	39	125	343
Universities and Advanced Education	4,668	4,576	5,063	9,328	6,319
School buses	269	319	325	379	392
Student hostel advances (including buildings)	100	301	7	34	—
Total	13,784	18,498	20,941	27,757	29,368
Less repayments and redemptions (d)	4,343	5,747	7,590	26,237	35,672
Net debit to loan accounts ..	9,441	12,752	13,351	1,520	-6,303

(a) Excludes libraries, art gallery and museum.

(b) Includes technical high schools and Institute of Technology.

(c) To and including 1965-66, for University purposes only. Thereafter includes grants for Colleges of Advanced Education (\$1,645,000 in 1971-72).

(d) Includes Capital Works grants from the Commonwealth amounting to \$25,306,000 in 1971-72.

6.3 SCIENTIFIC AND RESEARCH ORGANISATIONS

AUSTRALIAN MINERAL DEVELOPMENT LABORATORIES

The Australian Mineral Development Laboratories (AMDEL) is a contract research and technical consulting organisation serving the mineral industry. A wide range of services are offered including chemical analysis, mineralogy, petrology, computer techniques, ore reserves calculations, mine planning, mineral engineering, chemical metallurgy, process control, materials science, plant evaluation, process design and commissioning.

The laboratories currently employ 250 personnel with graduate/diploma staff in excess of 80 supported by sophisticated instrumentation in the analytical and geological fields and extensive laboratory and pilot scale equipment for metallurgical processing.

Contract research earnings currently exceed \$2.5 million annually.

AUSTRALIAN WINE RESEARCH INSTITUTE

The Australian Wine Research Institute situated at Urrbrae promotes research and other scientific work for the Australian wine industry; it was established in 1955, having grown from a small research unit formed in 1934 within the University of Adelaide.

The Institute is administered by a nine member council consisting of representatives from the Australian wine industry, the Commonwealth Government, the Commonwealth Scientific and Industrial Research Organization and the University of Adelaide, and scientific advisers.

Comprising laboratories and an experimental winery, the Institute conducts research into wines, brandies, and winemaking, and specialises in the microbiology and chemistry of wines and brandies. A technical advisory section assists commercial winemakers with technical problems. Tested yeast cultures for wine fermentation are made available to the wine industry.

The John Fornachon Memorial Library maintained by the Institute is a specialised library of technical literature on wine.

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION

The Commonwealth Scientific and Industrial Research Organization (CSIRO) is Australia's largest civil scientific body. Established as the Council for Scientific and Industrial Research in 1926, it was reorganised in 1949 under the Science and Industry Research Act. Its functions include the initiation and carrying out of scientific research in connection with, or for the promotion of, primary or secondary industries; the making of grants in aid of pure scientific research; the collection and dissemination of information relating to scientific and technical matters; and the publication of scientific and technical reports, periodicals and papers.

The governing body is an executive of five full-time and four part-time members supported by a national advisory council and a local committee in each State. The council and committee members (scientists, agriculturalists or industrialists) are frequently consulted, either individually or corporately, by the executive and they also take the initiative in bringing problems to the attention of the executive.

Four of the thirty-five CSIRO research divisions have their headquarters in South Australia: these are the Divisions of Nutritional Biochemistry; Soils; Horticultural Research; and Mathematical Statistics.

Division of Nutritional Biochemistry

This Division's interests extend through the fields of nutritional biochemistry and nutritional physiology. The greater part of its efforts have been concentrated on research associated with sheep nutrition and wool and meat production. The Division's work on the role of trace elements in plant and animal nutrition has been of far-reaching consequence. The animal nutrition work has led to practical means of controlling 'coast disease' and 'phalaris staggers', two common diseases of sheep. Plant nutrition research has shown how added traces of elements such as copper and zinc enable large tracts of country previously regarded as desert to be farmed profitably.

The Division has its headquarters laboratory in the grounds of the University of Adelaide and a field station at O'Halloran Hill.

Division of Soils

The research programme of the Division of Soils is concerned with the use of soils in agriculture and forestry, and the role of soils and soil materials in hydrology, plant growth and as habitats for flora and fauna. Increasing emphasis is placed on the importance of soil research in problems of the environment, although, from its inception the Division has necessarily been environmentally oriented. While early field programmes in the Division involved soil survey and mapping, this aspect is now largely the responsibility of the various State Departments and pedologists are now engaged on more basic studies of the principles of soil occurrence, geomorphology, geochronology and sedimentology.

The work is organised into several programmes, each of which comprises a number of projects. Because soil is a complex mixture of organic and inorganic materials, with a micro-flora and micro-fauna that vary with the material from which it is comprised, the climate in which it occurs, and the plants and animals that occupy its surface, very few problems in soils are capable of a unidisciplinary solution. Consequently, although the Division operates through seven Sections, Chemistry, Microbiology, Micromorphology, Mineralogy, Pedology, Physics and Zoology, several of the programmes involve work in more than one Section.

The headquarters laboratory is in Adelaide, with smaller groups in regional laboratories in Brisbane, Canberra, Hobart, Perth and Townsville. About half the staff are in the Adelaide laboratories, which hold the major groups for all sections except Micromorphology, which is at the Canberra laboratory. Not all the regional laboratories have each Section represented but scientists from Pedology and Chemistry Sections are located at all of them. Soil physicists and hydrologists are located at Brisbane, Canberra and Perth; the Mineralogy Section has a large group in Adelaide and a smaller unit in Brisbane.

Division of Horticultural Research

The work of this Division is concerned primarily with research on the perennial horticultural crops of the temperate zone, especially grapevines.

For both drying and wine grapes it aims to provide better planting material through breeding new hybrids, selecting and producing virus-free and genetically superior clones of established varieties, and through testing newly imported varieties and rootstocks, in particular those resistant to nematodes. Research in spacing, trellising, pruning, and mechanical harvesting looks for better returns from vineyard operation, and investigation into the technology of grape drying helps towards the marketing of dried fruit. These studies, together with research in the ecology of apple and citrus orchards, and the finding of varieties of species such as the avocado, pistachio, guava and mango which would grow and fruit

in Southern Australia, take place at the Merbein (Victoria) laboratory of the Division. A Tasmanian group at Hobart studies the nutrition and physiological disorders of apples.

At the Division's headquarters in Adelaide, research in plant physiology and biochemistry provides a knowledge and understanding of economic crops used in the field. Problems of photosynthesis, plant hormones, flowering, ripening and abscission of fruit, and of plant parasitic nematodes are being studied.

Division of Mathematical Statistics

This Division has its headquarters in Adelaide but most of its officers are stationed in other CSIRO laboratories throughout Australia. These officers conduct research in applied statistics and act as consultants in the design of field and laboratory experiments and in the analysis and interpretation of experimental results. Some of the Divisional headquarters staff carry out these functions and the remainder are engaged on fundamental research in mathematical statistics on a broad front including distribution theory, multivariate analysis, scientific inference and experimental design and applied research in climatology, meteorology, agriculture and large scale agricultural and climatological surveys.

DEFENCE STANDARDS LABORATORIES

A South Australian Branch of the Defence Standards Laboratories (DSL) of the Department of Supply is located at Woodville North where it occupies a number of buildings in that portion of the wartime Finsbury Ammunition Factory which has been retained by the Department of Supply for joint use by DSL and the Stores and Transport Branch.

The laboratory which was established in 1947 provides a scientific service to all branches of the Defence Services. After meeting defence requirements the facilities may also be made available on a commercial basis to non-defence government departments and to private industry provided such facilities are not available elsewhere in the State.

The laboratory works principally in the fields of chemistry, physics and metallurgy, and it has a programme of long term defence research projects which are related to these disciplines. In addition it has excellent facilities for standards and calibration work and for providing a consulting and testing service in the disciplines mentioned.

The laboratory has been formally appointed a Verifying Authority under the *Weights and Measures (National Standards) Act* 1960-1966 in ten fields of precision measurement. In these particular fields, the laboratory can verify and re-verify subsidiary standards for use by other laboratories in the State in accordance with the requirements of the *Weights and Measures Act*.

The major research projects of the establishment are concerned with the development of defence and commercial applications for electrophotography and electroradiography and with fundamental aspects of photoconductivity in order to provide basic information for use in establishing and improving electrophotographic processes.

A new process for the liquid development of electrophotographic images was invented at the laboratory in 1953 and world-wide patents have been taken out to cover this and many other related processes which have been established since that time. These new processes have found numerous defence applications including medical and industrial radiography, cartography, the printing of aerial photographs, the high density recording of electrical signals and facsimile transmission. In addition the DSL liquid development process has had wide commercial application in office copying equipment and in colour printing and proofing. At the

present time the royalties paid to the Commonwealth by overseas licensees of the electrophotography patents amount to approximately \$1.3 million each year.

The laboratory at the present time is also undertaking research in field ion microscopy, X-ray scattering by metal single crystals and brittle fracture of refractory metals.

At the end of 1972 the total staff of the laboratory was sixty-five including eighteen research scientists and experimental officers.

INSTITUTE OF MEDICAL AND VETERINARY SCIENCE

The Institute of Medical and Veterinary Science was established in 1937 under the Institute of Medical and Veterinary Science Act, 1937 to incorporate the functions of the former Adelaide Hospital Laboratory.

The Director of the Institute is the chief executive officer of the council which is responsible to the Minister of Health.

The Institute provides diagnostic facilities in all branches of clinical pathology for the Royal Adelaide Hospital and other metropolitan and country hospitals, for public health authorities, for industry, and for private practitioners. It also undertakes work in all branches of veterinary pathology for the Department of Agriculture, and for veterinary practitioners and stockowners. Research is conducted into selected problems connected with disease in man, and in animals of economic importance. The staff of the Institute takes part in the teaching of the medical sciences to graduates, students and technicians.

The Institute of Medical and Veterinary Science

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Staff at end of year:					
Graduate	73	72	85	91	99
Other	246	260	305	366	399
Tests performed	860,910	933,083	1,133,123	1,470,474	1,752,943
Revenue:					
	Dollars				
State Government grant	1,000,000	913,955	1,195,976	1,371,130	1,690,280
Fees for laboratory tests	355,278	434,837	484,608	1,120,341	1,207,494
Other	56,899	94,841	100,431	153,894	126,315
Total	1,412,177	1,443,633	1,781,015	2,645,365	3,024,089
Expenditure:					
Salaries and wages	925,192	1,077,098	1,314,923	1,764,556	2,201,285
Other	337,631	373,409	503,527	682,126	768,613
Total	1,262,823	1,450,507	1,818,450	2,446,682	2,969,898

The Institute operates a Division of Nuclear Medicine in the Royal Adelaide Hospital which undertakes a variety of diagnostic tests using radio-active isotopes to indicate the anatomical and physiological state of different parts of the human body. To meet the growing needs for blood transfusion and services in rural areas Regional Laboratories, staffed and administered by the Institute, have been established in six towns.

The increase in volume of work is reflected in the increased number of tests performed: 27,000 in 1938-39; 175,528 in 1952-53; and 1,752,943 in 1971-72. Sections of the Institute that have recently grown in size and importance are the

Amoebic Research Unit, the Salmonella Reference Laboratory, the Tuberculosis Laboratory and a large, centralised, automated laboratory. To meet these demands a new wing, which doubles the laboratory space available, has been completed. A computerised system of laboratory reporting, accounting and data storage for rapid retrieval is progressively being developed and introduced. Plans are being prepared for this system to be extended as a State Laboratory Computing System to cover the needs of several other large hospital laboratories in the metropolitan area.

WAITE AGRICULTURAL RESEARCH INSTITUTE

The Waite Agricultural Research Institute was established, within the University of Adelaide, in 1924.

The research projects conducted at the Institute cover a wide range of topics, of which the following are a few examples: relationship of stocking rates to pasture composition and fertiliser practices; the protein chemistry of the wheat grain; the genetics and breeding of cereals and pasture plants; flower and fruit development in horticultural plants; studies on soil-borne and virus diseases of plants; nutrition of the honey bee; and the biochemistry of nitrogen fixation.

Further details relating to the Waite Institute may be found on pages 190-1.

WEAPONS RESEARCH ESTABLISHMENT

The Weapons Research Establishment, situated at Salisbury, is the largest of three organisations within the Research and Development Branch of the Department of Supply. The Research and Development Branch, with its headquarters in Canberra, is responsible for research and scientific development in relation to defence, including the operations of the Joint United Kingdom-Australia Weapons Research Project. The Weapons Research Establishment is concerned with research, development and testing of guided missiles, experimental research in the upper atmosphere and research and development in areas related to defence including aerodynamics, propulsion, electronics, computing, systems analysis and operational research.

The headquarters of the Weapons Research Establishment occupies an area of 4.5 square miles at Salisbury. Facilities within the area have been provided for branches of British firms which have contracted with the British Ministry of Technology to develop weapons systems or components.

The establishment comprises four main sections or wings, namely, Trials Wing, Applied Physics Wing, Weapons Research and Development Wing and Engineering Wing. Trials Wing is concerned with the operation, development, and instrumentation of the Woomera Range and the planning, execution and assessment of trials there. Applied Physics Wing is responsible for Australian defence research programmes in the fields of electronics, optics, systems analysis, radio and optical propagation, radar, lasers, infra-red, visual surveillance and electronic warfare. Weapons Research and Development Wing supports Australian defence and development programmes in the fields of aero-ballistics, rocket propulsion, weapon systems and marine physics. Engineering Wing provides engineering support including specification, manufacture, installation and maintenance of equipment; design and development in electronic, communications and mechanical engineering fields; and library services in technical publications and associated activities.

Testing ranges have been established at Woomera, which is approximately 300 miles north-west of Adelaide. A township, together with modern amenities including hospital, school, kindergarten, community store, swimming pool and all sporting facilities, has been built at Woomera to accommodate the range and allied service personnel and their families. Woomera has a population of about 4,450 including dependants and support personnel. The total strength of the Weapons Research Establishment including staff at Salisbury and Woomera was about 4,500 at September 1972.

Edinburgh Airfield which adjoins Weapons Research Establishment at Salisbury is the headquarters of the RAAF in South Australia and is a fully operational RAAF base. When necessary, aircraft associated with joint project or other trials are operated from this base.

A special article on the Weapons Research Establishment together with maps and diagrams was included on pages 184-92 of the *South Australian Year Book* 1969.

United States Space Projects

As a result of an agreement between the Australian and United States Governments a Defence Space Communication facility has been constructed near Woomera. A deep space tracking station, part of the U.S. National Aeronautics and Space Agency global network, has been in operation for some years at Island Lagoon, Woomera.

6.4 CULTURE AND RECREATION

LIBRARIES

The State Library

The State Library of South Australia has its origin in a collection of books assembled in London in 1834, two years before the province of South Australia was founded. The modern character of the Library was established in 1940 when, after the Price Report of 1937, the Library was separated from the Museum and Art Gallery and became a State Government department administered by the Libraries Board of South Australia.

The Library has a representative basic collection of nineteenth and twentieth century materials in all subjects except medicine and law. It has considerable strength in a number of subjects including South Australian publications, librarianship, wine, Australian Aborigines, River Murray shipping, sailing ships, and nineteenth century illustrated works on natural history. In addition there is an extensive collection of tape recordings of Australian authors, folksongs and Aboriginal music. The Library is an official depository for the publications of the United Nations and of the Australian, British, Californian, and Philippine governments.

The oldest section of the Library is the Reference Library which is the central basic collection. Since 1946, except for rare, irreplaceable volumes, the books have been available for loan. Over 3,200 periodicals are taken annually, and the newspaper reading room files 346 foreign and local newspapers; in 1971-72, 55,330 periodicals were lent. Legislation since 1878 provides for the deposit in the Library of copies of all items published in South Australia.

The Research Service, established in 1942 was amalgamated with the Reference Library to form the Reference Service Branch in 1972. In 1971-72 this Branch answered 144,000 enquiries. It supplies lists of references and arranges for the borrowing of books and periodicals selected from those lists as well as books and

photocopies from interstate and overseas libraries. *Pinpointer*, a monthly index of popular Australian periodicals and *Index to Australian Book Reviews* are published.

In 1919 the Archives Section was established for the collection of original South Australian historical material. In 1925 legislation was passed forbidding the destruction of government documents without reference to the Libraries Board. At the end of June 1972 there was 23,400 feet of occupied shelf space in the Archives. In 1971-72, 6,100 enquiries were received for which 20,200 issues (consisting of maps, views, documents or printed sources) were produced. A journal, *South Australiana*, is published twice a year.

The Children's Library was established in 1915 and is believed to be the oldest in Australia. The carefully selected books include about 6,000 rare and old books in a special study collection. School classes visit the Library, and talks are given to groups of parents and to various societies.

People living outside the Adelaide metropolitan area are served by the Country Lending Service which began lending books in 1938. This service has 13,000 active borrowers of whom 6,500 are children. Books are also lent to associations, clubs and gaols.

In 1946 the Adelaide Lending Service was opened to serve metropolitan readers. Books were lent to 42,000 borrowers in 1971-72. There are special collections of books in foreign languages and sets of plays are lent to play-reading and acting groups.

Another active section is the Youth Lending Service established in 1957 catering for the needs of young people between the ages of thirteen and eighteen years. The Service was used by over 21,500 young people in 1971-72. The collection, besides general literature, includes publications dealing with hobbies and careers of special interest to adolescents.

State Library of South Australia

Year	Reference Library	Children's Library	Country Lending Service (a)	Adelaide Lending Service	Youth Lending Service	Total
VOLUMES HELD						
At 30 June:						
1968.....	250,721	38,937	360,965	48,266	15,292	714,181
1969.....	259,103	39,404	399,972	51,052	15,740	765,271
1970.....	268,899	40,756	437,250	53,687	16,132	816,724
1971.....	281,955	45,742	520,245	58,781	17,006	923,729
1972.....	295,432	48,858	605,980	61,604	18,169	1,030,043
VOLUMES LENT						
To 30 June:						
1968.....	107,662	261,248	199,951	316,575	111,513	996,949
1969.....	104,410	230,597	178,884	300,058	99,465	913,414
1970.....	100,445	202,506	157,130	308,261	85,692	854,034
1971.....	100,940	187,563	156,339	330,077	88,745	863,664
1972.....	105,450	193,667	163,747	369,187	97,651	929,702

(a) Volumes held include volumes on loan to local public libraries. In 1971-72 such loans amounted to 303,246. These have not been included in volumes lent.

Photographic and xerographic copying facilities are available to the public and much work is done for the Library itself. In 1962 the Libraries Board began an extensive programme of publishing facsimile editions and other works of Australian interest. Over 150 works have now been published. Long playing records have also been issued. Other publications include several series of *Occasional Papers* in various subject fields, and an annual *Miscellanea Musicologica*, published in association with the University of Adelaide.

Local Public Libraries

Local public libraries financed by municipal authorities are subsidised under the Libraries (Subsidies) Act, 1955-1958. With general oversight and planning by the Libraries Board, subsidies (\$264,328 in 1971-72) are paid on a dollar for dollar basis. Thirty-one libraries, operated by twenty-two local government authorities, serving over half of the population of the State had been established at June 1972. All book stocks are interchangeable with a central pool maintained by the Libraries Board.

Local Public Libraries, South Australia

Year	Libraries at end of year	Registered Readers	Books Lent	Stocks at End of Year
1967-68	29	143,147	1,942,494	228,872
1968-69	29	143,963	2,103,129	255,934
1969-70	31	139,458	2,072,581	280,595
1970-71	31	145,166	2,083,872	274,735
1971-72	31	127,172	2,365,738	303,246

The Adelaide Circulating Library

The Adelaide Circulating Library also traces its origin to the collection of books dispatched from London shortly after foundation of the State. In 1884 the collection which had grown from this nucleus was divided, the text and reference books going to the newly formed Public Library, and the remaining works constituting the Adelaide Circulating Library.

The Library, which receives a government grant each year, is controlled by a committee elected by subscribers. At 30 June 1972 the Library contained over 86,000 volumes, and subscribers during the year 1971-72 numbered 1,300.

Institute Libraries

Several country and suburban centres had formed institutes in the early 1850s. The first legislation on libraries was passed in the 1855-56 session of Parliament and resulted in the establishment of the South Australian Institute. In 1861, a new building was erected on the corner of North Terrace and Kintore Avenue for the Institute, which in 1884 was divided into two organisations, the Public Library and the Adelaide Circulating Library.

Institute libraries, which are situated in metropolitan and country areas throughout the State, are largely dependent on members subscriptions and in some cases on income from the Institute hall, but they also receive a government subsidy and about two-thirds of them receive support in varying degrees from local councils.

The Institutes Association of South Australia Inc. acts as a co-ordinating authority and as a purchasing agency for affiliated Institutes, these, however, retain complete autonomy, being governed by a committee elected by members. The conduct of Institutes is regulated by The Libraries and Institutes Act, 1939-1967.

The borrowing facilities of Institutes are available to subscribers and the general public has access to, and the use of, reading facilities in the library. Many Institute libraries allow children to borrow books from the library without charge.

**Institute Libraries, South Australia
At 31 December**

Particulars	1968	1969	1970	1971	1972
Number of institutes	193	193	190	186	182
Subscribers	21,422	(a) 27,271	33,815	43,250	46,349
Number of volumes	769,656	759,524	762,263	761,560	758,970
Volumes circulated during year ..	1,478,375	1,580,443	1,703,295	1,736,245	1,684,113

(a) From 1969 includes also other users of the libraries.

Other Libraries

Particulars relating to the Barr Smith Library at the University of Adelaide (645,200 volumes, including 48,400 microformes, at the end of 1972) and the Flinders University Library (224,000 volumes at the end of 1972) are given on pages 190 and 194 respectively. Other libraries include those of the Royal Society of South Australia (approximately 27,000 volumes), the South Australian Branch of the Royal Geographical Society of Australasia (approximately 16,000 volumes) and the Parliamentary Library (about 60,000 volumes).

MUSEUMS

The South Australian Museum

Founded in 1856 as part of the South Australian Institute the South Australian Museum became a separate institution with its own board in 1940 under the provisions of the Musuem Act, 1939. The Museum's first permanent building, the West Wing, was opened in 1884, the North Wing was completed in 1895 and the East Wing was added in 1912-15. Since then the Museum has expanded to occupy the historically and architecturally significant buildings of the Old Police Barracks. Similar to other major museums in Australia and overseas, it makes and preserves collections, carries out research and acts as an education centre for primary, secondary and tertiary students and for the public. Its main areas of interest are ethnology, natural history and geology.

The South Australian Museum has a staff of sixty with fifteen professional research workers responsible for the care of the collections and for carrying out research upon them.

Several of the collections of specimens and data are outstanding. The collection of Australian ethnological material is of world renown while those of New Guinea ethnological objects, minerals, insects and southern Australian animals are excellent.

The research of the scientific staff is primarily taxonomic, involving the naming, identification and classification of animals; however, considerable stress is laid on their ecology, and inter-relationships with the environment. With the current

interest in, and need for knowledge concerning conservation and environmental deterioration, this work is of increasing importance. Results of the research work of staff members are published in the *Records of the South Australian Museum* and in scientific journals throughout the world. The Museum's scientific Library houses more than 30,000 volumes.

Advice, based on their research results and on their specialised knowledge, is given by the scientific staff to many other research institutions and government departments. The anthropologists and archaeologists are, in addition to their research and other responsibilities, called upon to assist with the preservation of Aboriginal and historic relics (see pages 215-7).

The Museum has a general Information Service dealing with about 8,000 inquiries annually and approximately 10,000 school children pass through the Education Section each year.

Public entertainment and instruction includes the presentation of displays in galleries covering nearly 40,000 square feet of which about 10,000 square feet are being currently redesigned. Education booklets on a variety of subjects, mostly written by Museum staff and published by the Museum, are sold to visitors at a nominal price. Cards are also published and are sold throughout Australia.

The scientific work of the Museum is supported by that of a number of distinguished scientists who are appointed as honorary associates, by the Cave Exploration Group of South Australia and by the general public. In particular the Friends of the South Australian Museum have given considerable support since their foundation in 1964.

Other Museums

A number of historic residences serve as museums. In 1961 the 'Old Government House' at Belair was refurnished with relics of the colonial era and opened for public inspection. At 'Whalers Haven', Victor Harbor, a pioneer cottage has been restored and features many relics of early settlement with particular emphasis on the whaling industry. The home of the poet Adam Lindsay Gordon, 'Dingley Dell' at Port MacDonnell, is maintained as a historic house and Captain Charles Sturt's original home at Grange is open to the public. Items of historical interest are exhibited in old buildings in many of the early established country towns.

A railway museum is maintained at Mile End by the Australian Railway Historical Society. Exhibits on display are of five gauges from the South Australian Railways (SAR), the Commonwealth Railways, the Silverton Tramway and private lines operating in conjunction with the SAR. Included are nineteen steam locomotives built between 1886 and 1954, two railcars, two diesels, one petrol locomotive and ten units of passenger and goods rollingstock dating from 1877, as well as a large selection of associated railway equipment. The museum is open to the public on the first and third Sundays of each month.

Various items of maritime association including pictures, models and fittings from early ships are displayed at the Nautical Museum at Port Adelaide.

A number of special museums are maintained at the University of Adelaide for the use of the staff and students and a Museum of Economic Botany is associated with the Botanic Garden.

The National Trust of South Australia

The National Trust of South Australia was established by Act of Parliament in 1955. It is administered by a council and is financed by gifts, legacies and subscriptions. There are thirty-five branches of the Trust in South Australia.

The Trust encourages the preservation and maintenance of lands and buildings of beauty, or of historic, scientific, artistic or architectural interest and the preservation of natural features in land and the protection of flora and fauna in South Australia.

Many early Adelaide buildings of architectural and historic merit are given one of the four following classifications by the Trust:

- A. buildings having great historic significance or high architectural qualities, the preservation of which is essential to the heritage of the State;
- B. buildings highly significant either architecturally or historically, the preservation of which is strongly recommended;
- C. buildings of considerable interest of which preservation is to be encouraged;
- D. buildings of sufficient interest to be recorded in accordance with the Australia-wide classification common to all Trusts.

This classification criterion is adhered to by all Trusts throughout Australia.

The many beautiful or historic Trust properties include Beaumont House and the Marble Hill ruins and reserve, and examples of the fine natural areas cared for are 'Willibalangaloo' at Berri, 'Watiparinga' at Eden Hills, 'Roachdale' at Kersbrook and 'Engelbrook' at Bridgewater. The Trust also owns the G. S. Sandison Reserve at Hallett Cove, an area of international scientific interest because of its glacial pavements.

Since its inception the National Trust of South Australia has been active in the fields of restoration, preservation and conservation. In 1963 the paddle steamer *Marion*, which now floats in the old graving dock at Mannum, was purchased and refitted; whilst the Willunga Court House and Police Station, both built in the mid-nineteenth century, were resored in 1969. In the following year the Trust fully restored the Customs House at Robe and in 1971 played a prominent part in persuading the State Government to save from demolition the architecturally classic and beautiful ANZ Bank Building in King William Street which had been given an 'A' classification by the Trust. This building is now occupied by the South Australian Registrar of Births, Deaths and Marriages, and many marriage ceremonies are held there.

At December 1972, the National Trust of South Australia controlled forty-two reserves totalling 2,600 acres and some twenty restored buildings, many of which are used as folk museums in various country centres.

The headquarters of the National Trust in South Australia is in the historic and beautiful residence of Ayers House, once the home of the first and seven times Premier of South Australia, Sir Henry Ayers. It is situated at 288 North Terrace, and is currently being fully restored.

Aboriginal and Historic Relics

The protection of Aboriginal relics and of traces of the early settlement of the State is governed by the Aboriginal and Historic Relics Preservation Act, 1965. The administration of this Act is the responsibility of the Minister of Environment and Conservation and the Director of the South Australian Museum as the *ex officio* Protector of Relics.

Remnants of Aboriginal culture such as prehistoric camp-sites, ceremonial grounds, cave paintings, rock engravings and canoe trees are to be found in various parts of the State. Although many such relics were destroyed following European

settlement several remain which are of great scientific and tourist interest. Similarly there are many interesting examples of early European settlement, all of which are protected by the provisions of the Act.

A particular relic or series of relics may be protected by the Governor declaring the area in which it is found either a Prohibited Area or a Historic Reserve. Inspectors and Wardens are appointed to safeguard such areas and the Protector of Relics maintains a complete register of all prohibited areas and reserves, and also of unproclaimed known occurrences of relics.

A special article on Aboriginal relics together with a list of declared areas at 30 June 1969 was included on pages 201-8 of the *South Australian Year Book* 1969 and areas declared between 1 July 1969 and 30 November 1971 were included in subsequent issues of the *South Australian Year Book*.

Areas declared between 1 December 1971 and 31 October 1972 were as follows:

Innamincka Historic Reserve <i>Historic Reserve</i>	Aboriginal relics including skeletal remains, rock engravings and mythological features located on Cooper Creek between Innamincka and the Queensland border.
Murrachowie (Poverty Bay) Stone Arrangement <i>Historic Reserve</i>	Extensive stone arrangement located in coastal fore-dunes.
Yantanabie Stone Arrangement and Quarry <i>Historic Reserve</i>	Extensive Aboriginal stone arrangement located on bed of salt lake.
Rockleigh Aboriginal and Historic Reserve <i>Historic Reserve</i>	Aboriginal ochre paintings, associated camp sites and early European cottage and grain threshing floor.
Overland Corner Hotel <i>Historic Reserve</i>	Old limestone building, the property of the National Trust of South Australia, associated with early stock overlanding to South Australia.
Beaumont House <i>Historic Reserve</i>	Historic residence of Bishop Short 1851-1856 and later of Sir Samuel Davenport. Property of the National Trust of South Australia.
Cave Hill Prohibited Area <i>Prohibited Area</i>	Aboriginal mythological site and important gallery of Aboriginal polychrome paintings.
Mount Johns Stone Cairn <i>Prohibited Area</i>	Secret/sacred Aboriginal stone arrangement.
Cape du Couedic 'Flying Fox' <i>Historic Reserve</i>	Former 'flying fox' associated with Cape du Couedic lighthouse.
Fort Glanville <i>Historic Reserve</i>	Early colonial shore battery.
G. D. Stuckey National Park <i>Historic Reserve</i>	Aboriginal archaeological site.
Plumbago Station <i>Historic Reserve</i>	Early European relics and Aboriginal painting sites.

Beltana Historic Reserve <i>Historic Reserve</i>	Historic township associated with former narrow gauge railway and camel transport.
Fishery Bay Whaling Station <i>Historic Reserve</i>	Site of early colonial whaling station.
Lake Hart Rock Engravings <i>Prohibited Area</i>	Extensive Aboriginal engraving site.

ART GALLERIES

The Art Gallery of South Australia

The National Gallery of South Australia was founded in 1881 as a part of The South Australian Institute which in 1884 became The Public Library, Museum and Art Gallery of South Australia. This institution was dissolved by Act of Parliament in 1940, and the Gallery became a government department under The Art Gallery Board. The name was changed to The Art Gallery of South Australia in 1968. The first portion of the present building, the Elder Wing, was completed in 1900, the Melrose Wing on the western side and the facade were added in 1936, and in 1962 a three storey air-conditioned wing was built at the northern end.

The collections are broad in scope and include a representative selection of Australian and European paintings and sculpture, a large collection of prints, drawings, silver, glass and ceramics including an important section devoted to South-East Asia, furniture, arms and armour and an important collection of coins and medals, and in addition the South Australian Historical Museum incorporates early South Australian relics and paintings.

In addition to the permanent collections, the Gallery has a full programme of visiting international and interstate exhibitions. With the establishment of The Adelaide Festival of Arts in 1960, the Gallery has participated as the organiser and venue of all the official art exhibitions brought to South Australia for this important cultural activity.

The Gallery has received many bequests, the Elder, Morgan Thomas, David Murray, Ragless, Boxall, Mortlock and Kolhagen bequests together totalling over \$252,000. Money has also been bequeathed for the Maude Vizard-Wholohan Prize awarded alternatively for a landscape or a figure subject in oils; there are additional Maude Vizard-Wholohan prizes for watercolour, print and sculpture from time to time. In addition the State Government makes an annual grant for the purchase of works of art.

The staff of professional and technical officers undertake the research and development, care and conservation of the collections and the preparation of exhibits for public education and enjoyment. Public enquiries for authentication of works of art and guidance in conservation are dealt with.

The Education Services have been extended, a regular programme of film evenings, lectures and demonstrations is given and the Travelling Art Exhibition, a fully equipped van with illuminated portable screens, accompanied by a driver and a lecturer, tours country centres during school term. In 1972, sixty-nine centres were visited and the exhibition was viewed by 36,000 adults and children.

A Reproduction Lending Service is also conducted for the benefit of suburban and country schools and government departments.

A society, The Friends of The Art Gallery of South Australia, was founded in 1969 for people interested in the fine arts and to create a body of people who would be informed about the activities of the Gallery. Membership stands at 1,533 and falls into four categories—Institutional, Family, Ordinary and Junior.

Other Galleries

South Australia's first Regional gallery was opened at Naracoorte in 1968. The Royal South Australian Society of Arts, founded in 1859, has conducted exhibitions and maintained an exhibition gallery almost continuously since that date. The Contemporary Art Society, S.A. Branch, also has its own gallery.

Beginning with the Citizens Art Group in 1954 and The Advertiser open air exhibition in 1955, there has been a growing interest in outdoor exhibitions for the display of local art. The 1972 Advertiser exhibition contained 1,157 exhibits submitted by 1,002 entrants. In addition commercial galleries in the city and country present exhibitions throughout the year.

MUSIC AND DRAMA

MUSIC

In orchestral performance in South Australia the South Australian Symphony Orchestra maintained by the Australian Broadcasting Commission (see below), plays a leading role. The University Music Society presents approximately ten subscription concerts each year including orchestral music, chamber music and various solo performances. In addition the Elder Conservatorium of Music arranges free Sunday afternoon concerts, lunch hour recitals by staff members and a number of student concerts including performances by senior and junior orchestras. Other performances include chamber music by local and overseas artists presented by the Musica Viva Society of Australia.

The Australian Opera presents seasons of opera in South Australia and local groups active in this field include New Opera (S.A.) and the Pro-Opera Consort. A number of societies and denominational groups make a regular contribution to choral music.

Australian Broadcasting Commission

In the metropolitan area the South Australian Symphony Orchestra each year gives twenty orchestral subscription concerts and six youth orchestral subscription concerts, usually featuring overseas conductors and/or soloists. The Australian Broadcasting Commission (ABC) also presents a recital series of six performances by overseas artists. In addition there are at least six free orchestral concerts annually and a series of three summer concerts as well as a series of four Prom concerts.

During 1972 the Orchestra gave twenty-seven free concerts for schoolchildren in the metropolitan area. Broken Hill had its own ABC subscription series of four concerts; one by the South Australian Symphony Orchestra and three by international recital artists. In addition the Symphony Orchestra toured the country areas and during 1972 visited eight other centres giving two free concerts for schoolchildren in each centre in addition to a public concert.

The Orchestra also gave three special performances during the 1972 Adelaide Festival of Arts.

Elder Conservatorium of Music

The Elder Conservatorium of Music at the University of Adelaide provides a comprehensive course of training for students in courses leading to the degree of Bachelor of Music, and also caters for part-time students by providing instruction in the various branches of music as single studies.

Particulars relating to the Elder Conservatorium at the University of Adelaide are given on page 191.

DRAMA

Adelaide has one fully professional theatre, Her Majesty's, which is able to stage plays, opera and ballet and with a seating capacity of 1,150 usually stages overseas or interstate productions. Other theatres in Adelaide are 'intimate' and usually stage local productions although at times, especially during the Festival of Arts, they present interstate or overseas productions. The Adelaide Festival Theatre which has facilities for drama, orchestral concerts, opera, ballet and films was opened on 2 June 1973.

There are over twenty amateur theatrical groups operating in South Australia. The Adelaide Repertory Theatre Inc., which claims the largest membership (approximately 2,000) of any amateur theatrical group in the Southern Hemisphere, has its permanent home at the Arts Theatre.

Many country centres support amateur theatrical groups and numbers of these combine annually for the South East Drama Festival and the Yorke Peninsula Drama Festival.

The Australian Elizabethan Theatre Trust, as well as presenting its own productions in Adelaide and certain country centres, gives some financial and other support to non-professional productions.

The Arts Council of Australia (S.A. Division) arranges some country tours by theatre groups while the adult education centres of the South Australian Department of Further Education provide accommodation and some teaching for several amateur theatrical groups in country towns.

THE ADELAIDE FESTIVAL OF ARTS

The idea of an arts festival was conceived late in 1958 by a group of Adelaide citizens, whose objective was a festival on international lines following generally the example of Edinburgh. Early in 1959 an administrative body was established supported by twelve volunteer committees—this reliance on voluntary effort has since remained as a feature of the festival organisation.

Although grants were made initially by the State and Commonwealth Governments and later by the Adelaide City Council, financing the Festival of Arts was established on a community basis with the support of business firms and individuals as guarantors for specified amounts. This has since been augmented by a Friends of the Festival plan under which private individuals donate a small fixed sum in return for benefits such as concessions on admission prices and membership of the Festival Club.

The first festival, held in March 1960 and extending over fourteen days, had total attendances exceeding 300,000. It covered almost every aspect of the arts, with seventy-four performances for adult audiences as well as an element of popular entertainment out-of-doors.

Subsequent festivals held biennially benefited from the longer planning periods available, the establishment of a small permanent secretariat and international promotion and publicity programmes. Programmes expanded and many ancillary activities were stimulated while attendances continued to rise with noticeable increases in the numbers from interstate and overseas.

The seven Festivals to date, have presented a blend of international and Australian performers. The programmes have been prepared with the co-operation and contributions of the Australian Broadcasting Commission, the Australian Elizabethan Theatre Trust, the Arts Council of Australia, the Musica Viva Society, the University of Adelaide, the Art Gallery of South Australia and many similar organisations.

There have been many exhibitions, several from overseas, shown at the Art Gallery of South Australia as part of the Festival's visual arts presentations. Outdoor activities such as National Flower Day and free entertainment in Elder Park have added much to the colour and atmosphere of the Festival.

The most recent Festival, held in March 1972, had the widest scope of attractions of all Festivals to date. An innovation was the special Youth Week attraction, Expression '72, which offered seminars, readings, workshops and entertainment for age groups in the range seven years to thirty years.

BROADCASTING

The supervision of radio and television broadcasting is a Commonwealth responsibility and is carried out by the Australian Broadcasting Control Board under the *Broadcasting and Television Act 1942-1972*. An office of the Board is maintained in South Australia to administer the Act and in particular to supervise the programme content and the technical quality of transmission.

Radio and television stations fall into two categories; national and commercial. National stations are operated by the Australian Broadcasting Commission. These stations do not broadcast advertising material, the Commission being supported by an annual grant from Commonwealth revenue. Commercial stations operated by companies licensed by the Postmaster-General, derive their revenue from advertising.

All radio and television receivers must be covered by licences issued by the Postmaster-General's Department. Normal annual charges at 31 December 1972 were \$8.00 for a listener's licence, \$19.00 for a viewer's licence or \$26.50 for a combined licence. Reduced rates apply to pensioners who satisfy certain conditions and to persons living in remote areas, while licences are granted free of charge to blind persons and to schools. One licence covers all receivers owned by a licensee or his family and normally held at the licensee's address. Special licences are required for radio and television receivers on hire, the responsibility for the licence being borne by the hirer, and not the user, of the receiver.

Radio

There are at present five metropolitan and thirteen country stations operating. The country or regional stations relay programmes from metropolitan stations and in addition provide programmes of local interest.

The call signs and locations of stations are given in the following table, all call signs in South Australia being prefixed by the number '5'.

Radio Stations, South Australia

At 31 December 1972

National Stations		Commercial Stations	
Call Sign	Location	Call Sign	Location
5AN	Adelaide	5AD	Adelaide
5CL	Adelaide	5DN	Adelaide
5CK	Port Pirie	5KA	Adelaide
5LC	Leigh Creek	5AU	Port Augusta
5LN	Port Lincoln	5MU	Murray Bridge
5MG	Mount Gambier	5PI	Crystal Brook
5MV	Renmark	5RM	Renmark
5PA	Naracoorte	5SE	Mount Gambier
5SY	Streaky Bay		
5WM	Woomera		

Adelaide's three commercial stations broadcast continuously, while all other stations operated between 121 and 128 hours a week at June 1972.

Since 1963, the Australian Broadcasting Control Board has made surveys of all metropolitan programmes twice yearly to obtain information as to the general availability of programmes in each city. The programme analysis covers the period of transmission between 6.00 a.m. and 10.30 p.m. Results of the surveys indicate that commercial stations broadcast mainly light entertainment in contrast to the national stations which, being independent of advertising revenue, provide a much wider variety of programmes.

The distribution of types of programme matter is set out in the following table. Details for South Australia are not separately available but closely approximate those for the Australian distribution.

Broadcasting Programmes by Categories, Australia 1971-72
All Metropolitan Stations

Category	Commercial	National	All Stations
	Per cent		
Entertainment:			
Light and popular music	51.3	24.5	42.9
Incidental matter	6.9	5.6	6.4
Variety	1.4	1.4	1.4
Drama	0.3	3.2	1.2
The arts	0.1	22.5	7.2
Information and Services:			
News	9.8	12.1	10.5
Sport	5.8	3.2	5.0
Information	1.7	6.8	3.3
Religious	1.4	1.9	1.6
Social and political	4.0	13.6	7.0
Family	1.2	0.4	0.9
Children's	(a)	2.2	0.7
Educational	—	2.6	0.8
Advertisements	16.1	—	11.1
Total	100.0	100.0	100.0

(a) Less than 0.05 per cent.

Details of broadcast listeners' licences current at 30 June in each of the years 1968 to 1972 are given below.

Broadcast Listeners' Licences, South Australia^(a)

(Current at 30 June)

Type of Licence	1968	1969	1970	1971	1972
Ordinary	249,305	254,409	255,993	259,650	262,359
Hirers' and short-term hirers' ...	910	1,169	1,597	3,090	3,342
Pensioner	37,607	39,898	42,246	44,816	46,751
Other	2,229	2,401	2,683	2,929	3,160
Total	290,051	297,877	302,519	310,485	315,612

(a) Includes Northern Territory (5,882 licences at 30 June 1972). Includes combined (broadcast and television) licences—248,820 at 30 June 1972.

Television

Television stations have been established in South Australia in accordance with the Australian Broadcasting Control Board's planned development of television services in Australia.

The following table shows the stations in service and the dates on which they commenced operations.

Television Stations, South Australia

At 31 December 1972

Call Sign and Channel	Location	Date Service Commenced
NATIONAL STATIONS		
ABS—2	Adelaide	March 1960
ABNS—1	Port Pirie	April 1965
ABGS—1	Mount Gambier	December 1965
ABRS—3	Loxton	January 1971
COMMERCIAL STATIONS		
NWS—9	Adelaide	September 1959
ADS—7	Adelaide	October 1959
SAS—10	Adelaide	July 1965
SES—8	Mount Gambier	March 1966
GTS—4	Port Pirie	March 1968

In the next stage of development low power national television stations are to be established at Ceduna and Woomera.

As the early stations became established their transmitting time was increased until in December 1963 the two commercial stations were transmitting in excess of seventy-seven hours a week and the national station sixty-seven hours. Early in 1964 there was a substantial reduction in hours of service but by December 1972 the hours of service for the four Adelaide stations varied between 84 and 112 hours each week.

On commercial channels there is a considerable emphasis on drama and light entertainment, whereas the Australian Broadcasting Commission devotes more time to programmes of an informative and educational nature. The Australian Broadcasting Control Board's analysis of television programmes is derived from data obtained directly from commercial and national stations and is calculated on the actual duration of the programmes and not, as formerly, on the scheduled duration as shown in programme journals. The time occupied by advertising is not dissected in the analysis but a separate study of advertising time based on data supplied in audience measurement survey reports carried out in Melbourne provides some indication of the proportion of time occupied by advertisements; in 1971-72 this was estimated at 15.8 per cent of the total televising time of commercial stations.

Results of surveys conducted by the Broadcasting Control Board in 1971-72 indicating the proportions of total broadcasting time (other than advertising) for various types of programmes are given in the following table. Details for South Australia are not separately available but closely approximate those for Australia.

Television Programmes: Categories, Australia, 1971-72

Category	Metropolitan Stations			Country Stations, Commercial
	Commercial	National	All Stations	
	Per cent			
Drama:				
Adventure	11.8	5.0	10.1	10.2
Domestic and comedy	14.7	8.5	13.8	17.2
Other	26.1	10.7	21.6	26.4
Light entertainment:				
Cartoons	6.0	3.6	5.4	3.3
Personality programmes	7.9	0.5	6.1	9.0
Variety	3.4	2.1	3.1	3.1
Other	4.3	2.7	3.8	5.0
Sport	6.1	11.6	7.5	5.9
News	4.6	7.4	5.3	9.2
Children	8.9	19.3	11.5	5.3
Family	1.9	0.9	1.6	1.3
Information	1.6	5.6	2.6	2.0
Current affairs and political	1.1	6.7	2.5	0.7
Religious	1.1	1.4	1.2	1.3
The arts	(a)	0.8	0.2	(a)
Education	0.5	13.2	3.7	0.1
Total	100.0	100.0	100.0	100.0

(a) Less than 0.05 per cent.

Details of television viewer's licences for the five years ending June 1972 are given in the next table.

Television Viewers' Licences, South Australia^(a)
(Current at 30 June)

Class of Licence	1968	1969	1970	1971	1972
Ordinary	203,497	209,709	213,978	218,958	225,015
Hirers' and short-term hirers' ...	35,184	37,629	41,357	43,904	49,553
Pensioner	27,487	30,580	33,847	37,003	39,784
Other	2,427	2,502	3,177	3,387	4,005
Total	268,595	280,420	292,359	303,252	318,357

(a) Includes Northern Territory (5,452 licences at 30 June 1972). Includes combined (broadcast and television) licences—248,820 at 30 June 1972.

THE PRESS

The State's first newspaper, *The South Australian Gazette & Colonial Register*, was first printed in London in 1836, six months before colonisation. The second issue of this paper, which served both as the official government publication and as an unofficial reporter of the news, was produced in Adelaide twelve months later. *The South Australian Government Gazette* emerged as a separate organ in 1839 and the newspaper continued as *The Register*. In 1850 *The Register* became the first continuous daily paper.

In the next twenty years several more daily newspapers were introduced, and for many years there were two morning and two evening papers daily. However, since the mid-1920s the present system of three major newspapers—one morning daily, one evening daily and one weekend publication—has emerged.

The Advertiser, published each morning except Sunday, was first issued in 1858 as *The South Australian Advertiser* and absorbed *The Register* in 1931. It is distributed throughout the State, with about 30 per cent of its circulation in country districts.

The News, published each evening except Sunday, was introduced in 1923 replacing two evening newspapers, *The Express & Telegraph* and *The Journal*, which traced back their origins to the 1860s. Almost 80 per cent of sales of *The News* are in Adelaide and suburbs.

The Sunday Mail, printed on Saturday evenings and distributed mainly on Sunday mornings, first appeared under this name in 1955 following a merger between *The Mail*, first printed in 1912 and the *Sunday Advertiser*, which was introduced in 1953. About 27 per cent of sales of the *Sunday Mail* are in country districts.

In addition *The Chronicle* and the *Stock Journal* are published weekly. *The Chronicle*, established as a country newspaper in 1858, has the largest circulation (about 20,000) of any weekly agricultural newspaper in South Australia. The *Stock Journal*, previously the *Adelaide Stock and Station Journal*, was established in 1904 and has a circulation of 18,500. The *Stock Journal* provides up-to-date information on stock and wool markets and the technical aspects of farming and property management.

To support these major State-wide newspapers, a strong provincial press has been built up. There are at present thirty-one country newspapers operating in the State with a combined circulation of over 100,000. Most of these are published weekly, although two appear bi-weekly and three tri-weekly. Of those

still existing, *The Border Watch* (Mount Gambier) in 1861 and *The Bunyip* (Gawler) in 1863 were first to appear. Earlier publications are, however, recorded; *The Port Lincoln Herald* for example was being printed in the early 1840s. There are also district papers containing items of local interest circulated in a number of suburbs of Adelaide.

PARKS AND GARDENS

Adelaide Botanic Garden

The Adelaide Botanic Garden, occupying about 45 acres of the parklands east of the Royal Adelaide Hospital, was established in 1855 and was opened to the public in 1857. An area of about 75 acres north of the Garden was acquired in 1874 and this area, known as Botanic Park, has been developed as an arboretum.

Since 1860 powers of management have been vested in a Board of Governors of eight members who serve for a period of four years but who may be re-elected for further terms.

The Garden contains an extensive collection of about 6,000 species of plants mainly of tropical and subtropical origin. Important features are the collections of native plants from dryland regions, cacti and succulents, the glass ground, glass house displays and the Wisteria arbor. The Museum of Economic Botany, opened in 1879, houses a comprehensive carpological collection and displays of plant products.

In 1954 the State Herbarium was re-established within the Botanic Garden Department and a new herbarium building was completed and occupied in 1965. At present it contains about 250,000 specimens. State-wide advisory services are available on all matters relating to ornamental horticulture.

Experimental tree plantations have been established at Giles Corner, Kulpara, Lameroo, Stansbury and Meningie. Mount Lofty Botanic Garden of approximately 200 acres was established in 1960 and is expected to be opened to the public in the mid-1970s.

In the mid-1960s the Wittunga garden at Blackwood was donated to the Botanic Garden. This comprises approximately 35 acres which has a nucleus planting of Australian and South African plants. It is hoped to open this to the public by the mid-1970s.

Zoological Gardens

The Royal Zoological Society of South Australia was founded in 1878, and in 1883 approximately 19 acres of Botanic Park were granted to the Society for the establishment of the Zoological Gardens. At the same time arrangements were made for the various exotic and Australian animals and birds previously housed in the Botanic Garden to be transferred to the Zoological Gardens.

During 1971-72 a total of 110 species and varieties of mammals, including a large collection of marsupials, were exhibited. Of particular interest is a colony of Yellow-footed Rock-Wallabies, the only such colony in any zoological garden in the world. The Zoological Gardens also contain a fine collection of Australian birds, a total of 248 species and varieties of Australian and exotic birds having been exhibited during 1971-72.

The many mammals, reptiles, and birds are displayed in cages and enclosures; the enclosures for some animals are moated yards freely open to public view.

The revenue necessary for maintaining and developing the gardens is obtained through an annual State Government grant, from gate receipts and sundry sources.

During 1971-72 about 364,000 persons visited the Zoological Gardens.

National Parks and Wildlife Service

The National Parks and Wildlife Act, 1972 (proclaimed 3 July 1972) repealed several Acts and amalgamated the previous functions of and areas controlled by the National Parks Commission, National Pleasure Resorts, the Fauna and Flora Board and the fauna section of the Fisheries and Fauna Conservation Department to form the National Parks and Wildlife Service. The Service is a division of the Department of Environment and Conservation and its purpose is to establish and manage reserves for public benefit and enjoyment, and to conserve wildlife.

The new Act provides for the protection of all fauna, flora and natural features within reserves and all protected and rare species of fauna and flora outside reserves. The areas are classified into the following types of reserves:

1. National Parks (parks of national significance);
2. Conservation Parks (primarily for conservation);
3. Recreation Parks (to allow for recreation without undue danger to natural areas);
4. Game Reserves (to enable management of wildlife).

At 31 December 1972 the reserves comprised 156 areas throughout the State and consisted of eight National Parks, 127 Conservation Parks, fifteen Recreation Parks and six Game Reserves. The total area was almost 9 million acres, or 3.62 per cent of the State. Areas under Service control ranged from 1 acre (Lipson Island Conservation Park) to 5,269,770 acres (an unnamed conservation park in the north-west of the State).

A description of some of the parks, recreation reserves and places of historical or scenic interest was included on page 217 of the *South Australian Year Book* 1972. Flora and fauna are discussed in Part 1.4, Natural Environment.

Municipal Parks and Gardens

The City of Adelaide is surrounded by 1,700 acres of parklands, considerable areas of which are devoted to sporting grounds and recreational facilities. In recent years intensive development of garden areas has been carried out and at 30 June 1972 there were 336 acres of gardens. Plantings during the year 1971-72 included 513 trees and 899 shrubs.

Most suburban and country local government authorities maintain parks and gardens within their areas.

PHYSICAL FITNESS

The National Fitness Movement began in Australia when the Commonwealth Government made funds available to each State for the purpose of setting up National Fitness Councils. A Commonwealth National Fitness Act was passed in 1941.

The National Fitness Council of South Australia, which is appointed by the Minister of Education, administers funds received from Federal and State Governments and other sources, and appoints its own staff.

The Council promotes physical fitness generally, conducting training and coaching courses in many games and outdoor activities as well as giving active support to youth and other organisations concerned with physical welfare.

Staff provide advice on all forms of recreation and maintain contact with bodies concerned with recreation. Council manages the Duke of Edinburgh's Scheme, and assists the Youth Council of S.A., the Women's Memorial Playing Fields, Outward Bound S.A. and similar bodies. It owns or controls camps at ten sites throughout South Australia.

Publications of the Council include books and pamphlets on adventure training, physical conditioning, fitness programmes, sports coaching, walking tracks. Surveys are made of recreation space, recreational needs, government assistance, sports participation and youth activities. In addition the Council maintains a library which is available for loans or reference. It contains books, pamphlets, journals, maps, plans and films on physical education, sports, recreation and health education.

In 1964 and 1968 the Council conducted surveys of recreational facilities in the Adelaide Planning Area. Summarised results of these surveys are given in the following table. The total of 10,763 acres in 1968 represented approximately 13.5 acres per thousand persons.

Recreational Facilities, Adelaide Planning Area^(a)

Facility	1964	1968
	Acres	
Field sports (b)	2,576	2,824
Children's playgrounds	91	108
Parks and gardens	1,179	1,820
Other (c)	4,943	6,011
Total	8,789	10,763

(a) As defined by the State Planning Office. School recreational facilities and regional reserves such as Belair National Park and Waterfall Gully are excluded.

(b) Includes tennis courts and bowling greens.

(c) Includes race courses, golf courses and areas reserved but undeveloped.

SPORTING FACILITIES

Adelaide Oval, occupying approximately 15 acres of the north parklands, is used for major cricket and Australian Rules football matches. The record attendances have been 62,543 on 2 October 1965 for Australian Rules football and 50,962 for Test cricket on 14 January 1933. In addition there are first class suburban ovals at which major sports are played.

In terms of attendance the most popular spectator sport is Australian Rules football; during the 1971 season the average attendance at the 105 minor round matches was 8,205 while the average at the four finals matches was 42,211.

The Olympic Sports Field is the Headquarters of the South Australian Amateur Athletics Association which is affiliated with the Australian Amateur Athletic Union. Each Saturday from October to March inter-club contests are held at this arena with an approximate annual attendance of 100,000 spectators. The Olympic Sports Field is also used by the South Australian Women's Amateur Athletic Association which conducts competitions on Saturday afternoons.

The parklands of the City of Adelaide are used extensively for sporting purposes and during 1971-72 permits were issued for the use of 356 sports grounds and courts.

Sports grounds are distributed throughout suburban Adelaide, at approximately one to two mile intervals, and throughout country areas. In addition sports areas are available at most State and private schools.

Race Courses

There are four registered metropolitan courses; Morphettville, Cheltenham, Victoria Park (occupying approximately 58 acres of the east parklands) and Oakbank. In addition there were, at 30 June 1972, forty-three registered racing clubs and twenty-eight registered country courses. Picnic race meetings are held at a number of outlying centres.

Trotting Tracks

Trotting was conducted at the Royal Agricultural and Horticultural Society showgrounds at Wayville before April 1973 and there were also tracks at Globe Derby Park Bolivar, Gawler and thirteen other centres in country areas. From 14 April 1973 Globe Derby Park has been the major track and headquarters for trotting in South Australia. Globe Derby Park, Gawler and seven other country tracks have facilities for night meetings. Trotting is now conducted throughout the year in South Australia.

Dog Racing

Greyhound racing (with betting) was introduced into South Australia in May 1971 with meetings at Whyalla and Strathalbyn. Other tracks have been established at Angle Park, Gawler and Port Pirie since that date. Meetings are held at least three times a week. Average attendance at Angle Park, the city track, is approximately 3,000.

Golf Courses

At 30 June 1972 there were seven suburban public courses, four 18-hole courses including one at National Park, Belair, and three par-3 links. There were also fourteen private courses operating within suburban Adelaide. The last course completed was a par-3 links at West Beach in 1969. In addition there are courses at many country centres.

Tennis Courts

The South Australian Lawn Tennis Club's courts (thirty-four grass and eight hard) at Memorial Drive, North Adelaide occupy approximately 10 acres of the north parklands. The centre court was the venue for Davis Cup matches in 1952, 1956, 1963 and 1968. At 31 December 1972 the parklands also contained 230 other tennis courts. Courts associated with schools, churches and private clubs exist throughout the State.

Bowling Greens

At 30 June 1972 there were 233 bowling clubs registered with the Royal South Australian Bowling Association—sixty-six in and near Adelaide, 167 in country areas, and four at Broken Hill, New South Wales. The size of clubs varied from thirty-five rinks at Bordertown to as few as three rinks, with the two largest suburban clubs being Holdfast Bay and Lockleys, each with thirty-two rinks. In addition in the metropolitan area there are sixty-one clubs registered with the South Australian Women's Bowling Association including seven clubs exclusively for women.

Swimming Facilities

At 31 December 1972 there were seventy-four public swimming pools in South Australia, of which fifty-six were in country centres. Of these only eight country and two metropolitan pools had been in use before 1950, recent activity having

been stimulated by a State Government subsidy on pool construction. Of the seventy-four pools, sixty-six had treated water, the remainder were in lakes, dams, rivers or the sea, or utilised sea water.

Swimming pools are provided at forty-nine State schools, eighteen of these being in country areas. Swimming facilities are also available at a number of private schools. The Education Department encourages school committees to build swimming pools by granting subsidies for their construction.

The Adelaide Swimming Centre in the north parklands, opened on 20 December 1969, is a complex of four pools, including a 50-metre eight lane pool, a diving/water polo pool, both of which comply fully with international competition requirements, a 60ft by 60ft learner's pool and a toddler's pool. The whole is contained in a four acre grassed area with spectator accommodation for 2,000 people forming an amphitheatre arrangement surrounding the competitive pools.

The nature of Adelaide's foreshore and that of many country beaches, combined with the prevailing climate, provides ideal conditions for open sea summer bathing.

CHRISTMAS PAGEANT

Each year in November, usually the second Saturday morning, a Christmas Pageant is held through the streets of Adelaide. It marks the beginning of the Christmas shopping season, the time when the retail stores first display their Christmas decorations and, more importantly for children, it heralds the arrival of Father Christmas.

The pageant is organised and conducted by the staff of a large departmental store, John Martin and Company Limited, supplemented by a number of brass and pipe bands. It is noteworthy that there is no advertising although it is conducted by a commercial organisation. Conceived by Sir Edward Hayward, the Chairman of Directors, it was first held in 1933 and has been an annual event with the exception of the five years 1940-44.

The floats in the pageant depict picture-book and fairyland characters—music is provided by brass and pipe bands and additional entertainment is supplied by a number of clowns. Some floats are mounted on motor chassis, some are towed by motors while others are drawn by the characters—in contrast to the early pageants when most of the floats were horsedrawn. Extensive use is now made of modern materials, including styrene foam and plastic, replacing the early use of timber and papier mache while nowadays some floats have their own sound-amplification.

The route of the pageant is along almost the whole length of King William Street, Adelaide's main thoroughfare, with a deviation through Grenfell and Rundle Streets and then into North Terrace—a total route distance of about 1.9 miles. To assist in controlling the ever-increasing large crowds blue honour lines, indicating the area of the roadway to be kept clear, were introduced in 1958, replacing in some places wooden barriers.

Although there are changes from year to year each pageant has had the common format of being led by a troop of South Australian Mounted Police on grey horses and concluding with the float bearing Father Christmas.

LOTTERIES AND BETTING

LOTTERIES

The State Lotteries Act, 1966 provides for the promotion and control of lotteries by the Government of the State. In November 1966 a Lotteries Commission, consisting of a chairman and two other members, was appointed to administer the Act which came into operation by proclamation issued on 8 December 1966 and the first draw was made in May 1967.

In accordance with Section 16 of the Act all moneys received by the Commission are paid into a Lotteries Fund from which moneys are made available for meeting the expenses of the Commission and paying prizes. The balance of the Lotteries Fund which represents the surplus of income over expenditure and prize moneys not claimed for over six months is from time to time, as required by the Treasurer, transferred to a Hospitals Fund.

Up to 31 December 1972, \$32,150,000 was received from the sale of tickets of which \$19,508,010 was distributed in prize money, and approximately \$10.1 million has been transferred to the Hospitals Fund.

Originally, only one lottery, a 50 cent series was conducted but in July 1967 a Jackpot series was introduced. At the commencement, the Jackpot lottery filled in approximately six weeks; it is now being drawn every three weeks. In addition a few special lotteries have been conducted with tickets sold at \$2 or \$3 each. The first \$5 lottery was conducted at the time of the Adelaide Cup in May 1972 and all tickets were sold within four days of opening.

The Commission operates an account service by accepting deposits from persons wishing to invest in each lottery without the need to purchase tickets themselves. At 31 December 1972, 2,078 subscribers availed themselves of this service.

At 31 December 1972 there were 209 Lotteries Commission Agents appointed in South Australia. Of these 124 were in the Adelaide and suburban area; fifty-eight in country areas and twenty-seven were subscriber (non-ticket selling) agents.

BETTING

Legalised betting in South Australia is governed by the provisions of the Lottery and Gaming Act, 1936-1972 and is restricted to horse racing, trotting, dog racing and coursing events. Betting on dog racing events was first authorised by an amendment to the Lottery and Gaming Act in December 1970.

The Act makes provision for betting with the totalisator and with bookmakers at horse race, trotting and dog race meetings. The totalisator cannot be used at coursing meetings but bookmakers may bet at them.

Before December 1933 legalised betting was restricted to totalisator betting at registered race meetings. From 1933 to 1967 it was limited to 'on-course' totalisators and to betting with bookmakers who were licensed to bet on courses where meetings were held, and also (from January 1934 to February 1942) with bookmakers who were licensed to bet 'off-course' in specially registered premises.

As a war-time measure racing and betting in South Australia were banned from March 1942 until October 1943. Off-course betting facilities were not re-established until 1946, when they were restricted to country areas. Port Pirie is the only town where bookmakers now operate in registered premises. Details of on-course betting and betting in registered premises are given in the following table for the years 1969-70 to 1971-72.

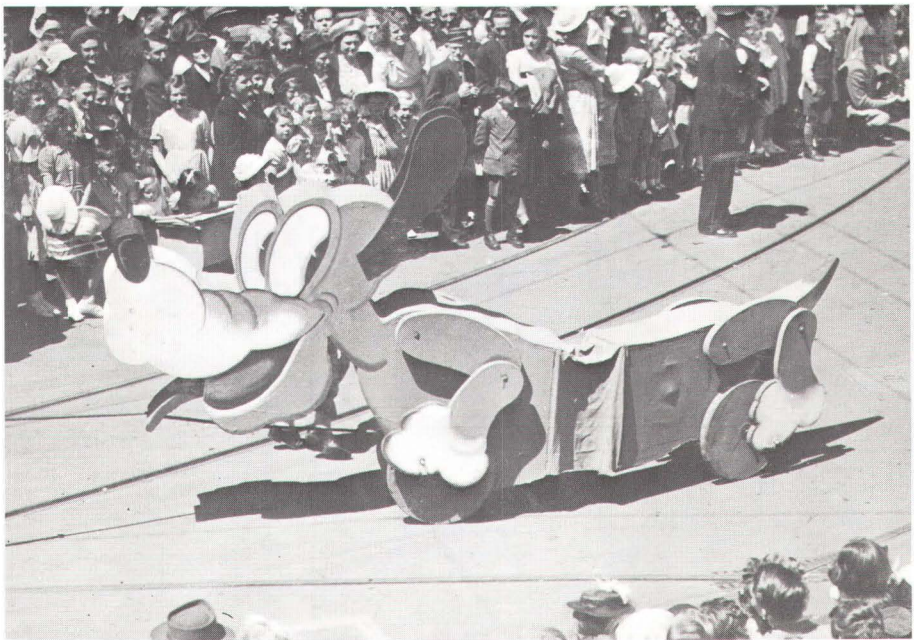


The Advertiser

The Christmas Pageant contains many floats which are assembled at John Martin's own workshop. The picture above shows the finishing touches being put to 'Donald Duck' (1946).

An animated 'Pluto' (1950).

John Martin and Co Ltd





John Martin and Co Ltd

The mechanical walking elephant, 'Nellie' (1950).

Story-book character 'The Cowardly Lion' (1949).

John Martin and Co Ltd





John Martin and Co Ltd

A tall clown from the procession (1972).

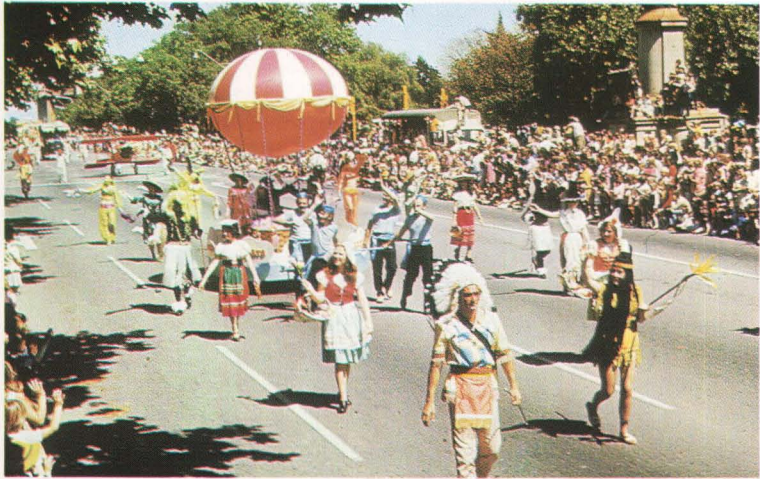
One of the most amusing and colourful floats, the 'Jungle Train' (1972).

John Martin and Co Ltd





John Martin and Co Ltd
Near the beginning of
the Pageant (1972).



John Martin and Co Ltd
A balloon depicting 'Around the World in 80 Days' (1972).

One of the many bands in
the Pageant—Campbelltown
City Brass (1972).

John Martin and Co Ltd





John Martin and Co Ltd
The river paddle-steamer,
'Showboat' (1972).



John Martin and Co Ltd
A huge Christmas stocking (1972).

Father Christmas in his
reindeer float (1971).

John Martin and Co Ltd





John Martin and Co Ltd

Nursery rhyme character
'Humpty Dumpty' (1972).

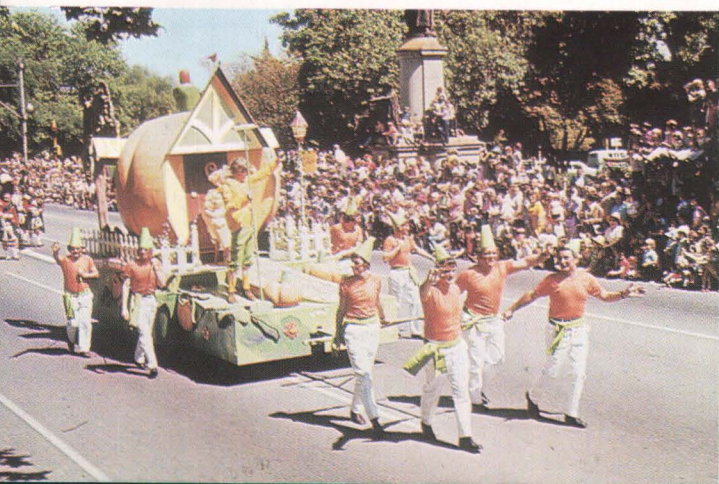


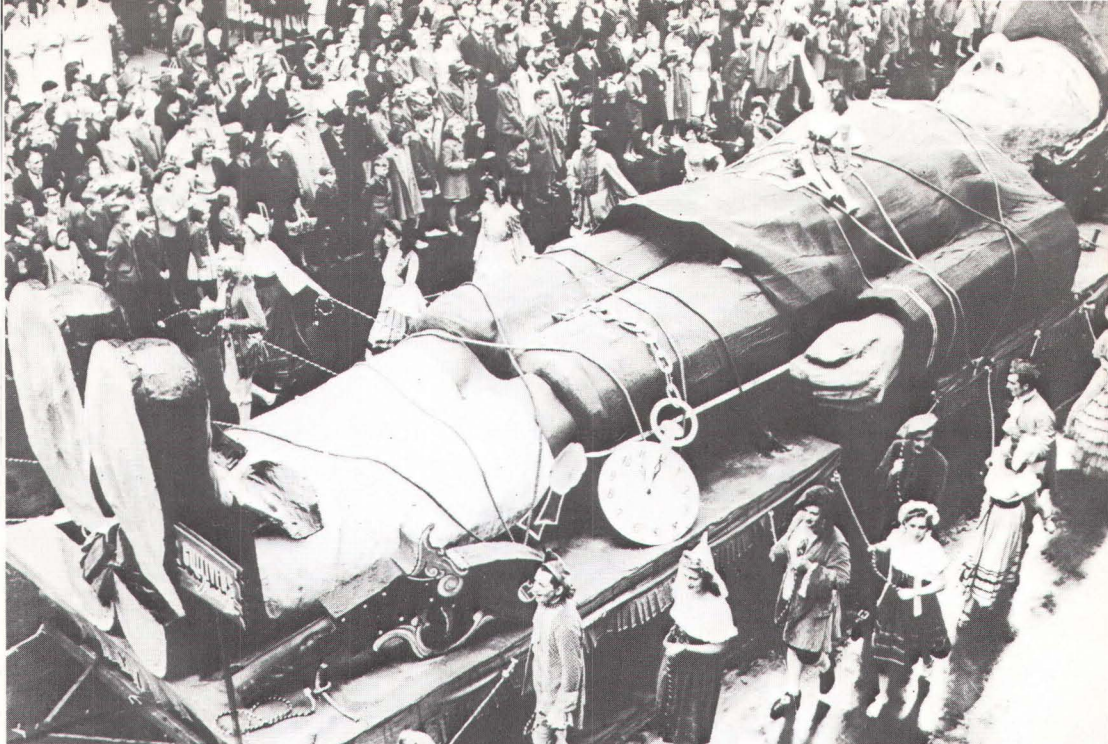
John Martin and Co Ltd

A float depicting a comic character 'Combo Clown' (1972).

Nursery rhyme character
'Peter Pumpkin Eater'
(1972).

John Martin and Co Ltd



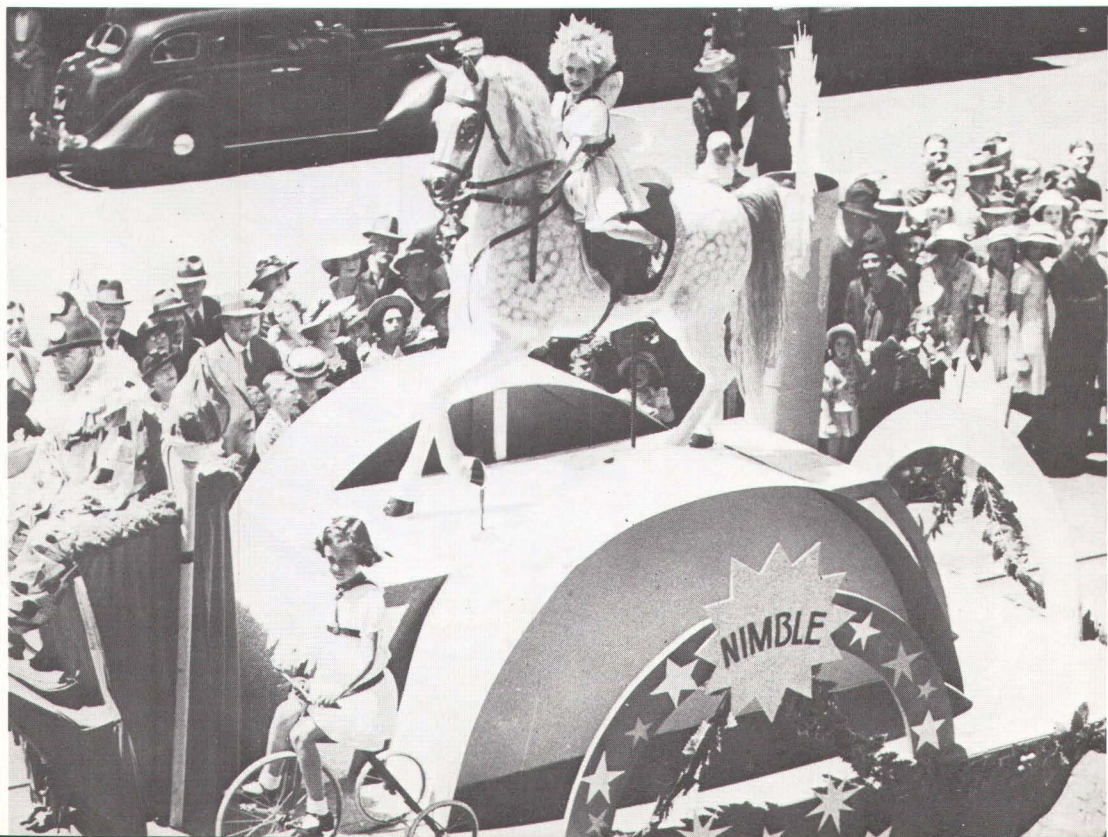


The Advertiser

Gulliver in the land of Lilliput (1947).

The large rocking-horse 'Nimble' (1945).

The Advertiser



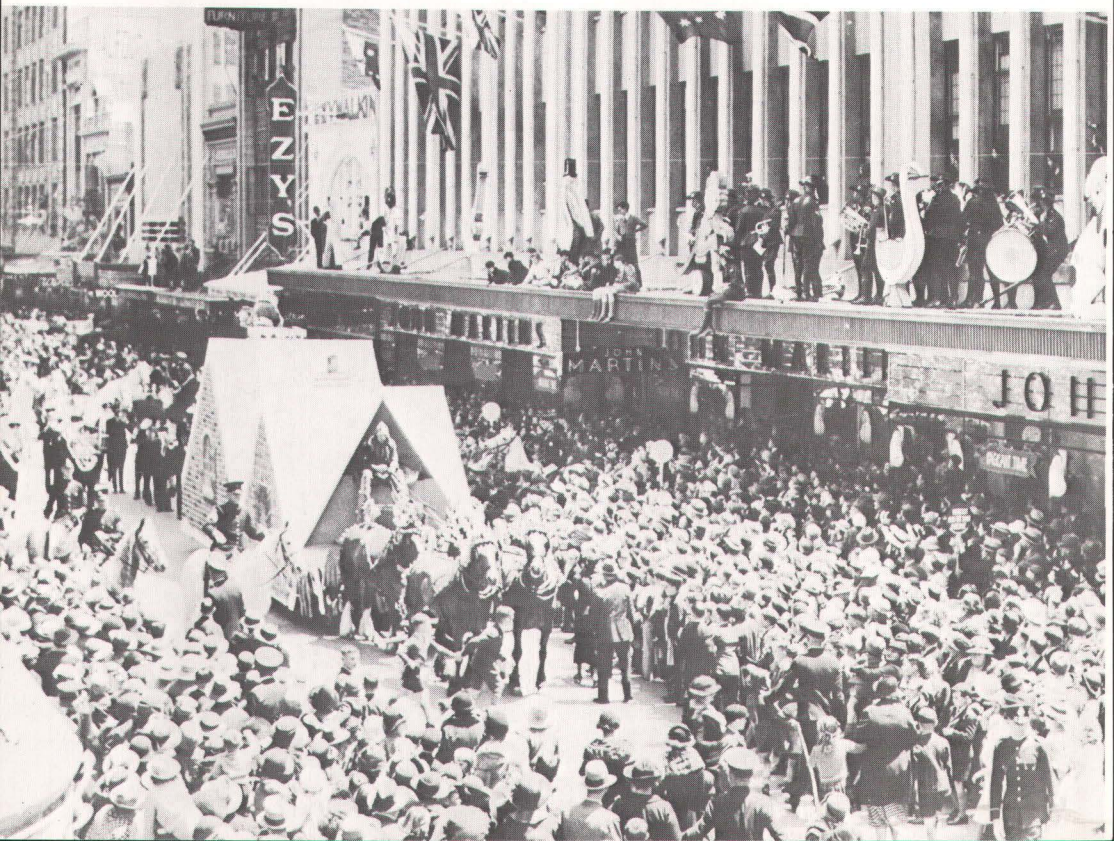


The Advertiser

The horse-drawn 'Christmas Pudding' float from an early Pageant (1936).

Father Christmas on a snowy roof-top (1936).

The Advertiser



**Betting: Amounts Invested with Bookmakers and On-Course Totalisators and
Distribution of Commissions, Taxes and Fractions, South Australia**

Particulars	1969-70	1970-71	1971-72
Amount invested:	\$'000		
Totalisators;			
Horse racing	4,594	5,112	5,770
Trotting	1,605	1,782	1,606
Dogs	—	44	816
Total	6,198	6,938	8,191
Bookmakers;			
On-course	56,550	58,839	71,377
Registered premises	1,615	1,888	2,167
Total	58,165	60,728	73,544
Total amount invested	64,363	67,665	81,736
Distribution of commissions, taxes and fractions derived from betting transactions:			
State Government;			
Totalisator tax and licences	304	338	401
Commission on bets	495	554	759
Winning bets tax	37	—	—
Stamp duty on betting tickets	111	125	135
Dividends and winning bets unclaimed..	66	81	109
Total paid to Consolidated Revenue	1,015	1,099	1,404
Clubs;			
Commission on bets	549	575	671
Commission on totalisator takings	555	612	753
Total	1,104	1,188	1,424
Charitable institutions;			
Totalisator fractions	63	67	82
Total distribution	2,181	2,354	2,909

In October 1966, provision was made for the setting up of the Totalisator Agency system of 'off-course' betting, and agencies have since been established in the metropolitan area and at numerous country towns. A Board consisting of a Chairman and seven other members representative of racing and trotting interests was appointed to administer the new system and the Totalisator Agency Board (TAB) Headquarters was established in Adelaide during December 1966. The Board was enlarged during 1970-71 to include a representative of the greyhound racing interests. The TAB first operated on 29 March 1967 on a country race meeting while it operated for the first time on a metropolitan meeting on 1 April 1967.

Thirteen agencies were open on the first day of TAB operations. At 30 June 1972, 154 agencies were operating of which fifty-seven were sub-agencies operated in conjunction with other businesses. Further premises in the city, suburbs and country towns are being established progressively to provide a

complete coverage of the whole State. In addition, a system of telephone betting is available to persons who have established accounts with the TAB. At 30 June 1972 the Board employed seventy-five permanent officers and 819 part-time staff.

For the year ended 30 June 1972 off-course investments totalled \$39,090,122 of which approximately 86 per cent was payable as dividends. The following amounts became payable to the South Australian Government (to be paid into the Hospitals Fund at the State Treasury) from the operations of the Board during that year:

	\$
Stamp Duty	1,972,270
Fractions	381,708
Unclaimed Dividends	141,533
Commission on N.S.W. (Broken Hill) Investments	2,985
	<hr/>
	2,498,496
	<hr/>

In addition, for the year ended 30 June 1972, an amount of \$1,173,112 became available for distribution to racing, trotting and greyhound clubs under a scheme of distribution prepared by the Board and approved by the Chief Secretary. Since commencing operations in 1967 the Board has distributed a total of \$4,002,510 to participating clubs while in the same period, the South Australian Government has received \$7,890,723.

The Board now operates an on-course totalisator service for racing, trotting and greyhound clubs and at 30 June 1972 a total of eighteen clubs had availed themselves of these facilities.

6.5 HEALTH

HISTORICAL

The first Health Act in South Australia was passed in 1873. This Act, which was modelled on earlier English legislation, established a Central Board of Health, and a number of town councils were constituted as local boards. The present Health Act dates from 1935. Administration continued under the authority of the Central Board of Health until 1949 when the Department of Public Health was formed to co-ordinate the work of the board and other health activities. The first hospital in South Australia was built in 1837. It was a small thatched hut situated on North Terrace and measured 18 feet by 12 feet. The foundation stone of the first Adelaide Hospital was laid in 1840. This building, which was demolished in 1938, contained two 12-bed wards and four smaller rooms. The first buildings of the present Royal Adelaide Hospital were erected in 1856-57.

Hospitals in the country were established at Mount Gambier in 1869, Wallaroo and Port Lincoln in 1870, Port Augusta in 1875, and Port Pirie in 1890. The Port Adelaide Casualty Hospital was erected in 1882.

The State's first mental hospital, now demolished, was situated in Botanic Park. The Parkside Psychiatric Hospital (now Glenside Hospital) commenced operation in 1870 under the control of the Colonial Surgeon. The Enfield Receiving House and the Northfield Mental Hospital (now Hillcrest Hospital) were established in 1922 and 1929 respectively.

ADMINISTRATION

The administration of health in South Australia is principally under the control of three main authorities: the South Australian Department of Public Health and Hospitals Department, and the Commonwealth Department of Health. Broadly their activities cover different fields as follows; the Department of Public Health concentrates on general health matters including the prevention of disease, the Hospitals Department on hospitalisation, and the Commonwealth Department of Health on health on a national basis including national health services and quarantine.

The Department of Public Health embraces the activities of the Central Board of Health, the Occupational Health Branch, the School Health Branch (including the School Dental Services and the Deafness Guidance Clinic), the Epidemiology Branch, the Food and Drugs Advisory Committee, the Radiological Advisory Committee, the Geriatrician, the Clean Air Committee, and also the public health aspects of the control of tuberculosis, including the Chest Clinic and the State X-ray health surveys. The Department is also responsible for health education, including the drug and smoking education programmes sponsored by the Commonwealth, and for Aboriginal health in South Australia.

The Central Board of Health administers the Health, Food and Drugs, Narcotic and Psychotropic, Noxious Trades and Bakehouse Registration Acts. The Board also has responsibilities under the Local Government Act and the Cremation Act. The Health Act and the Food and Drugs Act constitute every municipal or district council a local board of health or local authority for its area, except that in the metropolitan area, the Metropolitan County Board (representing twenty metropolitan corporations) is the local authority under the Food and Drugs Act. The Central Board of Health acts as a supervisory body over all the 137 local boards under the Health Act, the Food and Drugs Act and the Bakehouse Registration Act. It has concurrent jurisdiction with local boards. Outside the boundaries of local boards the Central Board is the administering authority.

The Hospitals Department administers government hospitals and supervises the work of government subsidised hospitals in South Australia.

Other State authorities concerned with aspects of public health include the Engineering and Water Supply Department which is responsible for water supply and sewerage services, and the South Australian Meat Corporation which is responsible for the functioning of the metropolitan abattoirs and for the inspection of premises used for merchandising, storing or processing of meat.

Under the Health and Medical Services Act, 1949 the Advisory Council on Health and Medical Services was constituted to investigate and report on matters referred to it by the Minister of Health. The matters may relate to any question concerning health, hospitals, medical services, the training and employment of any class of persons whose work relates to the promotion of health or to the treatment of disease or abnormality of the human body, and any proposals for new legislation relating to any of these matters.

The work of the Commonwealth Department of Health includes the administration of the national health services, including medical, hospital, pharmaceutical and pensioner benefits. Under the *Quarantine Act* 1908-1969 the Department is responsible for the various aspects of human, animal and plant quarantine. Persons ordered into quarantine are accommodated at Torrens Island Quarantine Station.

The South Australian Branch of the Repatriation Department administers the medical services provided for ex-service personnel whose disabilities are accepted as having been brought about by war service.

GENERAL HOSPITAL SERVICES

The control of hospitals in South Australia is vested in several authorities including the Hospitals Department, the Repatriation Department, religious and charitable organisations, local community committees and private owners.

PUBLIC HOSPITALS

The Hospitals Department administers two general hospitals in the metropolitan area, Royal Adelaide Hospital and The Queen Elizabeth Hospital. Work was begun in February 1968 on site preparation for the construction of a further general hospital in the north-eastern suburb of Modbury; 224 beds were provided in the first stage which was completed early in 1973. In the country there are government hospitals at Port Pirie, Mount Gambier, Port Lincoln, Port Augusta, Wallaroo and Whyalla.

In addition there are fifty-four other hospitals in country areas, conducted by local boards of management, which receive maintenance subsidies from the State Government and come under the general supervision of the Hospitals Department.

Public General Hospitals, South Australia^(a)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Hospitals	65	65	66	67	68
Staff (at end of year):					
Medical;					
Permanent	346	358	381	402	446
Other (b)	667	692	734	623	527
Nursing	4,549	5,251	5,772	5,801	6,351
Attendants and others	4,003	4,258	4,673	4,684	5,139
Patients:					
Admitted and re-admitted	119,451	129,328	131,667	135,927	147,058
Average daily number resident ...	3,435	3,575	3,685	3,779	3,899
			\$'000		
Revenue:					
State Government aid	16,626	21,364	23,198	32,971	42,373
Commonwealth (c)	3,519	3,612	4,066	4,367	4,331
Fees	8,156	9,495	10,829	13,471	20,079
Other	2,738	2,593	3,408	3,132	3,152
Total	31,039	37,064	41,500	53,942	69,935
Expenditure:					
Salaries	17,661	19,323	22,025	29,644	36,308
Maintenance, etc.	8,890	9,783	10,765	11,818	14,196
Buildings;					
New	3,403	6,411	6,025	10,070	16,073
Repairs	1,167	1,229	1,450	1,784	2,122
Total	31,121	36,746	40,264	53,316	68,699

(a) Public hospitals comprise those operated and maintained by State Government or semi-government authorities and those which receive a conditional subsidy or a regular grant from the State Government for maintenance purposes, but exclude those which receive *only* Commonwealth hospital benefits.

(b) Includes visiting specialists paid on a sessional basis, unpaid visiting specialists and honorary consultants. Before 1971-72 for some hospitals in country districts includes general practitioners treating patients in those hospitals.

(c) Hospital, pharmaceutical and tuberculosis benefits.

Public General Hospitals: South Australia, 1971-72^(a)

Particulars	Royal Adelaide Hospital	Queen Elizabeth Hospital	Adelaide Children's Hospital	Other General Hospitals	Total
Staff (at end of year):					
Medical;					
Permanent	210	134	71	31	446
Other (b).....	360	58	67	42	527
Nursing.....	2,288	836	666	2,561	6,351
Attendants and others	1,874	896	682	1,687	5,139
Patients:					
Admitted and re-admitted	28,629	18,994	16,993	82,442	147,058
Average daily number resident	1,075	462	299	2,063	3,899

(a) Public hospitals comprise those operated and maintained by State Government or semi-government authorities and those which receive a conditional subsidy or a regular grant from the State Government for maintenance purposes but exclude those which receive *only* Commonwealth hospital benefits.

(b) Includes visiting specialists paid on a sessional basis, unpaid visiting specialists and honorary consultants.

Royal Adelaide Hospital

The Royal Adelaide Hospital is a general hospital controlled by a board of three members, with the Director-General of Medical Services as Chairman. The hospital, which incorporates a department of dentistry, is a school of medical and dental instruction in connection with the University of Adelaide. Charges are made for in-patient treatment, and patients requiring out-patient treatment at the various clinics are subject to a means test as to eligibility for treatment.

In addition to the main hospital there are wards at Northfield, a section of which is used to accommodate patients with infectious conditions, and a section of the Morris Hospital, Northfield is occupied by the Spinal Injuries Unit.

At 30 June 1972 there were 1,325 beds at the hospital including seventy-nine in the infectious diseases wards at Northfield.

Queen Elizabeth Hospital

The Queen Elizabeth Hospital at Woodville is a general, casualty and maternity hospital controlled by a board of management of three members. It is a University teaching hospital affiliated with the University of Adelaide for the clinical teaching of undergraduate medical students. The first section was opened in 1954 and further blocks were open in 1957 and 1959. Building extensions and additions to provide a new wing of specialist wards commenced in June 1968 and these are being progressively occupied. Extensions to the outpatients department, the operating theatres and the pharmacy were opened early in 1973.

At 30 June 1972 there were 582 staffed beds available at the Hospital, including ten rehabilitation beds at the Mareeba Annexe, Woodville Park, about a mile from the main Hospital. Also at the Annexe is the recently opened day treatment centre and domiciliary care service.

Queen Victoria Hospital

The Queen Victoria Hospital, founded by public subscription, was opened in 1902. It primarily provides facilities for midwifery, neo-natal paediatrics and gynaecology and is a university teaching hospital. Controlled by a committee of management the hospital is financially dependent on State Government aid.

In 1971-72 State aid constituted 44.9 per cent and fees from patients 50.0 per cent of the revenue received for maintenance purposes. Accommodation at 30 June 1972 was 176 beds.

Adelaide Children's Hospital

The Adelaide Children's Hospital was founded by public subscription in 1876 and the first patient admitted in 1879. It is controlled by a board of management and supported by State Government grants, public subscriptions and fees. In 1971-72 the hospital received 57 per cent of its revenue in the form of State Government Grants.

Children fourteen years and under may receive in-patient and out-patient treatment. The hospital provides a training school for nurses and nurse aides and instruction for medical students. The University of Adelaide Department of Paediatrics is situated at the hospital.

There were 400 beds at the hospital at 30 June 1972.

REPATRIATION HOSPITALS

The Repatriation Department has maintained two hospitals in South Australia—the Repatriation General Hospital at Daw Park and the Repatriation Hospital 'Birralee' at Belair.

The Daw Park hospital was a military hospital during the 1939-45 War, coming under the control of the Department in 1947. Medical and surgical in-patient treatment is provided for eligible ex-service personnel, eligible dependants and serving members of the forces. The average daily number of patients in the Hospital during 1971-72 was 235 and the staff at the end of the year totalled 580. The auxiliary hospital, 'Birralee', at Belair catered for some general medical patients and had a section for the treatment of tuberculosis patients. The average occupancy during 1971-72 was twenty-nine. In January 1973 the general medical patients were transferred to the Repatriation General Hospital at Daw Park, and the tuberculosis patients to Kalyra Sanatorium. The property at 'Birralee' has been retained by the Repatriation Department. Details of the number of patients treated at Daw Park and Belair are given on page 265.

PRIVATE HOSPITALS

Details of all private institutions approved for payment of Commonwealth hospital or nursing home benefits are given in the following table.

Private Hospitals and Nursing Homes, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Number of hospitals.....	61	62	59	56	53
Number of nursing homes.....	127	128	127	130	127
Number of beds at end of year:					
Hospitals.....	2,142	2,271	2,044	2,078	2,137
Nursing Homes.....	2,756	2,890	3,032	3,236	3,382

There are several large private hospitals in the metropolitan area including Calvary Hospital, the Memorial Hospital and St Andrew's Presbyterian Hospital, all of which are run by denominational bodies. Another large institution is the Home for Incurables at Fullarton which provides accommodation and nursing

attention for persons suffering from chronic disease. Kalyra Sanatorium at Belair conducted by the James Brown Memorial Trust Inc. is the main institution for in-patient treatment of tuberculosis. An extensive rebuilding programme to provide better facilities at this hospital was completed during 1972.

MENTAL HEALTH SERVICES

The Director of Mental Health Services is responsible for the management of public psychiatric services within South Australia. Operating as a division of the Hospitals Department this Service controls four major institutions—Glenside Hospital, Enfield Hospital, Hillcrest Hospital and the Strathmont Centre—and in addition three hostels for accommodating discharged patients, two child guidance clinics, two community mental health centres and the St Corantyn Psychiatric Day Hospital.

In addition to the Enfield Hospital, there are separate 'short-term' receiving units at Glenside and at Hillcrest Hospitals where treatment is directed towards early discharge. In general the duration of stay in these units is a few months terminating in either transfer as a 'long-term' patient or in discharge. A summary of the number of persons receiving treatment by Mental Health Services between 1967-68 and 1971-72 follows.

Government Psychiatric Institutions, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
In-patients:					
Admitted and re-admitted	2,733	2,964	3,378	3,527	3,602
Discharged	2,576	2,939	3,243	3,433	3,486
Deaths during year	189	207	149	170	150
Remaining at end of year;					
Certified, males	825	685	541	471	403
females	650	561	454	396	336
Voluntary, males	487	538	674	726	739
females	503	499	600	600	681
Total	2,465	2,283	2,269	2,193	2,159
Out and day-patients:					
Treated during year;					
Males	2,027	2,050	2,134	2,149	2,109
Females	2,466	2,488	2,488	2,356	2,281
Persons	4,493	4,538	4,622	4,505	4,390

The number of in-patients remaining at the end of the year, while showing a steady decrease, indicates also a shift in emphasis from 'certified' to 'voluntary' over the period; certified patients comprised nearly 60 per cent in June 1968 compared with only 34 per cent in June 1972.

Over the same period there has been no marked decline in the number of out and day-patients treated. Details of diagnosis and of the number of attendances by these patients during 1971-72 are shown in the next table.

**Out-patients and Day-patients Treated in Government Psychiatric Institutions
Diagnosis and Number of Attendances, South Australia, 1971-72**

Diagnosis	Number of Patients who Attended					Total Patients Treated
	1-4 Times	5-9 Times	10-15 Times	16-22 Times	23 or more Times	
MALES						
Senile and pre-senile dementia	6	3	—	—	—	9
Alcoholic psychosis	7	1	—	—	1	9
Other organic psychoses	6	3	—	—	—	9
Schizophrenia and paranoid states	172	83	12	6	33	306
Depressive psychosis	35	29	3	1	4	72
Other functional psychoses	29	7	5	3	6	50
Depressive neurosis	146	53	13	2	13	227
Other neuroses and psychosomatic disorders	149	69	17	2	12	249
Alcoholism	30	6	—	1	2	39
Drug addiction	8	—	—	—	—	8
Other personality disorders	239	56	21	14	21	351
Transient situational disturbances and behaviour disorders of childhood	271	100	26	2	—	399
Non-psychotic mental disorders associated with physical condition	52	36	8	—	1	97
Mental retardation	219	4	2	1	19	245
Non-psychiatric diagnosis	29	8	1	1	—	39
Total	1,398	458	108	33	112	2,109
FEMALES						
Senile and pre-senile dementia	8	—	—	—	1	9
Alcoholic psychosis	2	2	—	—	1	5
Other organic psychoses	17	4	—	—	1	23
Schizophrenia and paranoid states	205	90	8	1	19	330
Depressive psychosis	115	50	14	5	12	196
Other functional psychoses	40	21	6	1	12	80
Depressive neurosis	315	95	36	13	45	504
Other neuroses and psychosomatic disorders	175	71	24	15	13	298
Alcoholism	6	3	1	—	1	11
Drug addiction	6	1	—	—	—	8
Other personality disorders	179	64	22	5	21	291
Transient situational disturbances and behaviour disorders of childhood	190	53	16	4	2	265
Non-psychotic mental disorders associated with physical condition	22	11	3	1	—	37
Mental retardation	156	12	4	2	12	186
Non-psychiatric diagnosis	29	5	1	1	2	38
Total	1,465	482	136	56	142	2,281

**In-patients Admitted and Re-admitted to Government Psychiatric Institutions
South Australia**

Diagnosis	1969-70		1970-71		1971-72	
	Males	Females	Males	Females	Males	Females
Senile and pre-senile dementia	69	121	94	121	84	126
Alcoholic psychosis	81	23	48	24	39	21
Other organic psychoses	37	46	57	44	31	46
Schizophrenia and paranoid states	453	353	463	344	433	354
Depressive psychosis	103	221	67	130	79	171
Other functional psychoses	75	141	68	108	71	116
Depressive neurosis	108	206	149	303	113	299
Other neuroses and psychosomatic disorders	66	71	35	66	37	69
Alcoholism	359	53	396	34	452	55
Drug addiction	231	247	20	25	9	28
Other personality disorders	—	—	207	210	214	220
Transient situational disturbances and behaviour disorders of childhood	30	29	26	19	21	24
Non-psychotic mental disorders associated with physical condition	13	7	18	12	19	10
Mental retardation	115	98	278	144	195	244
Non-psychiatric diagnosis	7	15	6	11	12	10
Total	1,747	1,631	1,932	1,595	1,809	1,793

The second table on page 238 shows that for females and total persons admitted or re-admitted as in-patients during 1971-72 the most common diagnosis was 'schizophrenia and paranoid states': alcoholism was a slightly more common diagnosis for males who in fact dominated that particular category, constituting 90 per cent of total persons so diagnosed. Females out-numbered males by more than two to one in the diagnosis categories 'depressive psychosis' and 'depressive neurosis'.

In-patients discharged during 1971-72 are shown in the following table in relation to the period hospitalised and the condition treated.

**In-patients Discharged from Government Psychiatric Institutions
Diagnosis and Period Resident, South Australia, 1971-72**

Diagnosis	Period Resident						Total Discharges
	Under 2 weeks	2 weeks and under 1 month	1 month and under 2 months	2 months and under 6 months	6 months and under 1 year	1 year and over	
MALES							
Senile and pre-senile dementia	24	17	9	9	3	1	63
Alcoholic psychosis	10	12	7	7	1	6	43
Other organic psychoses	11	6	8	4	2	5	36
Schizophrenia and paranoid states	90	111	108	90	23	42	464
Depressive psychosis	19	20	22	16	—	—	77
Other functional psychoses	18	19	18	10	2	1	68
Depressive neurosis	43	35	21	6	5	—	110
Other neuroses and psychosomatic disorders	17	6	5	6	1	—	35
Alcoholism	151	85	102	94	7	2	441
Drug addiction	2	3	5	3	2	1	16
Other personality disorders	85	46	41	30	7	10	219
Transient situational disturbances and behaviour disorders of childhood	6	5	3	6	—	1	21
Non-psychotic mental disorders associated with physical condition	7	—	4	1	1	2	15
Mental retardation	33	39	7	13	11	55	158
Non-psychiatric diagnosis	9	2	2	—	—	—	13
Total	525	406	362	295	65	126	1,779
FEMALES							
Senile and pre-senile dementia	30	25	15	12	3	14	99
Alcoholic psychosis	3	5	4	6	3	2	23
Other organic psychoses	14	9	7	6	1	3	40
Schizophrenia and paranoid states	66	103	79	81	8	22	359
Depressive psychosis	33	62	43	24	1	1	164
Other functional psychoses	26	32	27	14	2	3	104
Depressive neurosis	115	77	74	38	6	4	314
Other neuroses and psychosomatic disorders	20	17	17	8	2	—	64
Alcoholism	14	12	10	11	1	—	48
Drug addiction	8	7	8	5	—	—	28
Other personality disorders	98	49	34	33	7	2	223
Transient situational disturbances and behaviour disorders of childhood	9	2	4	7	2	—	24
Non-psychotic mental disorders associated with physical condition	5	—	—	2	—	1	8
Mental retardation	17	32	11	17	14	108	199
Non-psychiatric diagnosis	5	2	1	1	1	—	10
Total	463	434	334	265	51	160	1,707

MATERNAL AND CHILD WELFARE**MOTHERS AND BABIES HEALTH ASSOCIATION**

The Mothers and Babies Health Association, a voluntary body supported by government subsidy and public subscriptions, was established in 1909 and conducts maternal and infant welfare work throughout the State. At 290 regular centres, Association sisters give advice on the management of babies and infants while mothers who are unable to attend these centres may seek advice by correspondence.

The Association's mothercraft hospital, Torrens House, admits mothers with new-born babies for assistance in management and also treats babies and children up to the age of three years for feeding or behavioural disorders. Torrens House also serves as a Training School for infant welfare and mothercraft nurses.

SCHOOL HEALTH SERVICES

The medical inspection of school children was first introduced into schools in 1913 and since 1951 these inspections have been the responsibility of a branch of the Department of Public Health. No treatment is carried out by the State but where a child has some defect the parents are notified and advised to obtain treatment.

State and private schools within a radius of 60 miles from Adelaide, and at six large country centres are visited annually. Pupils in Grades 1 and 7 in primary schools and in third year in secondary schools are medically examined by a doctor and a sister. In addition the vision and hearing only, of children in Grade 4 and in fifth year at secondary schools, are tested by a nursing sister. The remaining country schools are visited at approximately three-yearly intervals when all the children are examined.

During 1972, 77,659 children were examined by medical officers in 506 metropolitan and 88 country schools. Of these 4,490 required treatment for defective vision, 3,628 for defective hearing and 4,928 for dental disorders. Hearing and vision tests were carried out also by screening sisters on 29,319 children. Of these 1,085 had hearing defects and 1,409 defective vision.

Dentists using five mobile vans and therapists working in twenty-three static clinics examined 23,921 children in 1972. Children offered treatment numbered 23,615, of which 22,356 accepted.

During 1972, 3,482 children attending the schools from which the training school for Dental Therapists draws its requirements were offered free dental treatment and 2,069 accepted. Of these 2,022 attended the training school during 1972 for examination and treatment. A dental research team working in metropolitan schools examined 1,100 children.

There were 2,968 children examined at the Deafness Guidance Clinic including 1,547 examined for the first time in 1972; 912 of those first examined in 1972 were referred to doctors or hospitals for treatment.

An assessment clinic, under the direction of a medical practitioner, began in 1971 for children with learning and behavioural problems; seventy-four children attended with their parents. In 1972, 331 children were examined.

The staff of the School Health Branch at the beginning of 1973 included thirteen medical officers (four part-time), thirteen nurses (two part-time), twenty-four dental officers, thirty-eight dental therapists, two sessional otologists, three audiometrists and one social worker.

COMMUNICABLE DISEASES

Under the Health Act, 1935-1972, certain diseases have been designated as 'infectious' and others as 'notifiable'. It is required that cases of infectious and notifiable diseases be reported to the local board of health, which in turn advises the Central Board of Health, and that cases of tuberculosis, gonorrhoea and syphilis be notified directly to the Central Board. It should be noted that the figures in the following table refer to cases notified and this may not reflect the actual number of occurrences of the disease in the population.

Communicable Diseases: Cases Notified, South Australia

Disease	1968	1969	1970	1971	1972
Diarrhoea, infantile	10	6	37	47	22
Dysentery, bacillary	204	157	190	183	277
Encephalitis	5	28	5	3	1
Gonorrhoea	497	703	652	817	989
Infective hepatitis	558	615	485	504	630
Malaria	4	6	5	5	25
Meningococcal infection	11	9	2	10	10
Paratyphoid	—	—	—	2	5
Rubella	442	354	223	59	168
Salmonella infection	240	166	226	286	150
Scarlet fever	44	67	44	44	28
Syphilis	51	38	76	122	205
Trachoma	—	—	—	11	1
Tuberculosis	110	141	172	137	132
Typhoid fever	13	3	1	2	—
Other diseases	14	6	153	18	117

The venereal diseases, gonorrhoea and syphilis, became notifiable in South Australia from November 1965. The Department of Public Health maintains venereal diseases investigation clinics, both at its Head Office and at the Royal Adelaide Hospital.

Anti-Tuberculosis Campaign

The Department of Public Health chest clinic has complete facilities for investigation, diagnosis and treatment of individuals with tuberculosis. In addition suspected cases are investigated and contacts are advised of precautionary measures and are periodically re-examined. The chest clinic has a static X-ray unit available to individuals and to which any doctor can refer patients for routine chest X-rays. In addition there are mobile units which are used for chest X-ray surveys in metropolitan and country areas. The chest clinic staff undertake tuberculin skin tests and vaccination programmes in metropolitan schools.

Since March 1952 compulsory X-ray surveys of the population have been conducted in South Australia. With the advent of mobile survey units using miniature radiography it has been possible to X-ray all persons aged twenty-one years and over every three or four years. Where necessary persons are subsequently referred to their medical practitioner.

Children in second year high school at most State and certain private schools in the metropolitan area are given a tuberculin test, and where appropriate the children are vaccinated.

Poliomyelitis Services

Following the development of Salk vaccine, a poliomyelitis immunisation programme began in 1956. All injections were given by the Poliomyelitis Services until 1961 when the vaccine became available to other authorities. In 1964 the vaccine was released for use by private medical practitioners.

Oral (Sabin) vaccine was first introduced in July 1967 and has now replaced the use of Salk vaccine. Immunisations with Salk vaccine were discontinued early in 1970, by which time 2,239,092 injections had been given. Up to the end of 1972, 661,648 doses of Sabin vaccine had been given, including 157,427 given in 1972. The figures include second, third and fourth injections and doses. The programme has corresponded with a dramatic decline in the incidence of poliomyelitis, as illustrated by the table.

Poliomyelitis, South Australia

Period	Cases Notified	Deaths
1950-54	3,747	117
1955-59	331	11
1960-64	82	5
1965-69	—	—
1970-72	1	—

The last notification (in 1970) referred to an Aboriginal child from the Northern Territory. There have been no cases of poliomyelitis among the population of the State since 1963.

ABORTION

Until December 1969 the law relating to abortions was included in Sections 81 and 82 of the Criminal Law Consolidation Act, 1935-1966. These Sections prohibited abortions under any circumstances. However, it was possible for legally qualified medical practitioners to perform abortions in a limited number of cases, at their discretion, under Common Law provisions. No separate statistics of such operations were recorded.

In December 1969 this Act was amended by the Criminal Law Consolidation Act Amendment Act, 1969 which was assented to on 8 January 1970. The amendment inserted a new section (Section 82a) which provided for certain exceptions to the prohibitions in Sections 81 and 82. These exceptions allow for termination of the pregnancy where:

- (1) it is necessary to save life, or prevent grave injury to the woman's physical or mental health; or
- (2) the continued pregnancy would involve greater risk to the mental or physical health of the woman, or there was a substantial risk that the child would suffer from such physical or mental abnormalities as to be seriously handicapped.

To qualify under these grounds, a woman must have resided in South Australia for a period of at least two months before the termination of her pregnancy.

Under the amended Act (the Criminal Law Consolidation Act, 1935-1969), a legally qualified medical practitioner may perform an operation to terminate a pregnancy, provided that he and another legally qualified medical practitioner

are both of the opinion that one of the above grounds is met. There is provision for one legally qualified medical practitioner to terminate the pregnancy without recourse to a second opinion where it is immediately necessary to save the life, or to prevent grave injury to the physical or mental health of the pregnant woman. All operations must be performed in hospitals prescribed under regulations to the Act. The following tables give details of abortions notified, in the years 1971 and 1972. The incidence of abortions notified per 1,000 live births registered was 109.5 in 1971 and 122.3 in 1972.

Abortions Notified: Grounds on Which Granted, South Australia

Grounds	1971		1972	
	Number	Per Cent	Number	Per Cent
Assault	16	0.6	13	0.5
Potential damage to foetus	100	4.0	98	3.6
Specified medical disorders	179	7.1	193	7.2
Specified psychiatric disorders	2,224	88.3	2,368	88.6
Total	2,519	100.0	2,672	100.0

Abortions Notified: Age Distribution, South Australia

Age Group	1971		1972	
	Number	Per Cent	Number	Per Cent
13-15	70	2.8	76	2.9
16-19	593	23.5	670	25.0
20-24	704	27.9	665	24.9
25-29	356	14.1	459	17.1
30-34	305	12.1	329	12.3
35-39	280	11.1	269	10.1
40-44	147	5.8	160	5.9
45 and over	12	0.5	24	0.9
Not stated	52	2.1	20	0.8
Total	2,519	100.0	2,672	100.0

Abortions Notified: Marital Status, South Australia

Marital Status	1971		1972	
	Number	Per Cent	Number	Per Cent
Single	1,243	49.3	1,259	47.1
Married	1,035	41.1	1,112	41.6
Widowed	19	0.8	23	0.7
Divorced/separated	222	8.8	278	10.4
Total	2,519	100.0	2,672	100.0

OTHER HEALTH SERVICES**Blood Transfusion Service**

The Red Cross Blood Transfusion Service collects and processes blood for the routine and emergency needs of all hospitals in South Australia. Blood donations are given at the Service's centre in Adelaide, at a mobile unit visiting metropolitan and country centres and at regional centres. In 1972 over 72,000 individual donations were received.

The Service maintains a blood bank at the Royal Adelaide Hospital, and a reference laboratory which, in addition to performing the necessary tests on donor blood, carries out investigations for hospitals and medical practitioners. There are subsidiary blood banks at the Queen Elizabeth Hospital, the Repatriation General Hospital and the Lyell McEwin Hospital, Elizabeth, and regional blood transfusion centres have been established at Mount Gambier, Whyalla, Berri and Port Lincoln.

The cost of maintaining the Blood Transfusion Service is met by the State Government (60 per cent), the Commonwealth Government (30 per cent) and the Red Cross Society (10 per cent).

Home Nursing

The Royal District and Bush Nursing Society of South Australia, through its forty branches in metropolitan and country districts, provides nursing facilities to those in need of home nursing. The services of the fully trained nursing staff are provided free of charge to those unable to afford a fee, and to others according to their means. During 1971-72 a total of 211,491 visits were made by seventy full-time nurses. The Society also maintains a hospital at Marree and a medical centre at Iron Knob.

The Society obtains its revenue from State and Commonwealth aid (70 per cent of total revenue in 1971-72), branch maintenance, including payments from patients, local government and other sources (26 per cent), and legacies and donations (4 per cent).

Aerial Medical Services

The Royal Flying Doctor Service (RFDS) of Australia is a non-profit organisation and provides medical, dental, ophthalmic, School of the Air and telegram services in remote areas of Australia. The Royal Flying Doctor Service of Australia (S.A. Section) Inc. of the RFDS operates over an area of approximately 820,000 square miles in South Australia and the Northern Territory; it administers control stations at Port Augusta, and Alice Springs in the Northern Territory, two aircraft being based at each centre. For the year ended 30 June 1972 these aircraft flew a total of 228,830 miles in transporting 558 patients to hospital and treating 2,236 patients at outback clinics. A further 569 patients received dental treatment from Adelaide dentists on regular monthly visits. Doctors gave 5,871 radio consultations to outback residents and 67,350 telegrams were transmitted from 456 licensed fixed and portable outstations.

No flying charges are made to patients and the Service relies on donations, bequests and similar sources for approximately two-thirds of the finance required and one-third from State and Commonwealth Government grants.

Ambulance Services

The St John Council for South Australia Inc. provides a full-time ambulance service in the metropolitan area. This service is manned by the St John Ambulance Brigade. The Council also has administrative oversight over ambulance operations in country areas and in many cases the vehicles are manned by the Brigade. In the metropolitan area during 1972 St John ambulances travelled 938,440 miles and carried 117,063 patients. Two aerial ambulances, based at Whyalla, flew 1,300 hours in 1972. These aircraft are fitted out on the same basis as road ambulances and all the equipment throughout the State is interchangeable. A mobile radio communication system operates throughout the State on standard frequencies.

Common training programmes are based on a Manual of Ambulance Transport Nursing published by the St John organisation in Adelaide. The establishment of a branch of Medic Alert International, a United States organisation, has facilitated the identification of people suffering from diseases and allergies which are not readily apparent. This knowledge is of assistance to both ambulance and hospital staffs in handling and treating patients.

Voluntary Agencies

There are many other voluntary bodies operating in South Australia and doing health work of a special nature. Their activities cover such fields as care of the handicapped, hospital services, care of mother and baby, care of the aged and the provision of convalescent facilities.

CREMATORIUMS AND CEMETERIES

The first crematorium in South Australia, the Adelaide Crematorium, was erected by the Cremation Society of South Australia, presented to the State Government in 1903 and subsequently was closed in November 1959.

Cremations are currently conducted at two cemeteries in the State. The Centennial Park Crematorium was erected in 1956 and is operated by the Centennial Park Cemetery Trust. A second crematorium, constructed by the Enfield General Cemetery Trust, commenced operations in December 1969.

There were 3,182 cremations in South Australia during 1972.

Cemeteries in South Australia are divided into three main groups: those under the control of the State Government or local government authorities, those under church control and those under the control of trusts.

In each of the above groups the cemeteries are financed by the usual charges for burials and by the leasing of land for burial purposes. With church and trust cemeteries, the cost of maintenance is often derived from interest accruing from invested capital funds.

STATE GOVERNMENT EXPENDITURE ON PUBLIC HEALTH

The following table shows the net expenditure by the State Government from Consolidated Revenue Account on various aspects of public health which is defined as excluding sewerage, drainage and water supply. The content of figures in some lines of the table is not strictly comparable from year to year because of changes in the pattern of expenditures from various Government funds, for example, expenditures met from Loan Fund or Hospitals Fund instead of from Consolidated Revenue Account. Subject to these qualifications the figures include both the cost of maintaining State Government activities and subsidies paid to semi-government and private organisations active in this field.

Net Expenditure on Public Health, South Australia^(a)

Category	1966-67	1967-68	1968-69	1969-70	1970-71
	\$'000				
Care of sick and mentally afflicted:					
Government general hospitals..	12,747	11,978	13,293	14,499	21,730
Subsidies to;					
General hospitals (including					
Adelaide Children's					
Hospital)	3,789	4,144	4,253	4,413	4,416
Other	316	333	405	453	500
Mental hospitals	4,719	5,199	5,558	6,140	7,085
Institutions for mentally deficient					
children	217	241	244	289	193
Health of mothers and children:					
Baby health centres	256	261	323	348	457
Maternity homes	516	506	485	540	532
Medical and dental examination					
of school children	270	321	424	602	789
Preservation of public health					
(including Public Health Depart-					
ment and administration of					
Health Acts)	663	735	845	930	1,057
Total	23,495	23,718	25,829	28,213	36,761

(a) From Consolidated Revenue Account only.

MEDICAL PERSONNEL

The following table lists registrations with the Medical, Dental, Pharmaceutical, Physiotherapy, and Nurses Boards of South Australia, and with the Board of Optical Registration.

Professional Medical Personnel, South Australia
Number Registered at 31 December

Profession	1968	1969	1970	1971	1972
Medical practitioners (a)	2,372	2,474	2,568	2,707	3,054
Dentists	304	350	389	414	442
Pharmaceutical chemists	836	917	921	891	903
Opticians	93	87	89	90	94
Nurses (b)	8,832	9,275	9,855	10,506	11,201
Nurse aides (c)	1,048	1,342	1,752	2,255	2,740
Midwives	3,565	3,640	3,837	4,040	4,265
Psychiatric nurses	588	646	708	771	830
Mental deficiency nurses	433	447	444	444	464
Infant welfare nurses (d)	565	632	691	748	804
Infectious diseases nurses	37	37	37	34	34
Physiotherapists	423	452	452	475	498
Dental nurses	76	100	120	122	142

(a) Includes personnel not practising in South Australia. Date of registration is 31 January in following year.

(b) Nurses may also be registered and included as midwives, psychiatric nurses, mental deficiency nurses, etc.

(c) Known as enrolled nurses from January 1971.

(d) Includes mothercraft nurses.

The figures for registered medical practitioners show the number of persons registered to practise medicine in South Australia and not the number actually practising, which is estimated at approximately two-thirds of those registered. Since the 1939-45 War there has been a considerable re-organisation of general practice in medicine with a movement away from single practices to partnership and group practice arrangements.

MEDICAL RESEARCH

The Institute of Medical and Veterinary Science

Details of this organisation are given under the heading of Scientific Organisations on pages 208-9.

The Anti-Cancer Foundation

The forerunner of the Foundation, the Anti-Cancer Campaign Committee, was formed within the University of Adelaide in 1928. The Committee's early activities were largely devoted to establishing and developing the Radiotherapy Department of the Royal Adelaide Hospital. As demand for these facilities grew the hospital assumed responsibility for routine treatment, and the Committee concentrated its activities on cancer research. In 1962 the Committee was re-organised and became the Anti-Cancer Foundation of the University of Adelaide.

Early research was of a clinical nature, but more recently the Foundation has subsidised cancer research projects within the Institute of Medical and Veterinary Science, the Flinders University of South Australia, the University of Adelaide, the Queen Elizabeth Hospital and the Royal Adelaide Hospital.

An education programme is being conducted to encourage the public to seek early medical advice and prompt treatment. Financial assistance is provided to families in necessitous circumstances and the Foundation has established well-equipped, self-contained flats to accommodate country patients receiving treatment at the Royal Adelaide Hospital.

The income of the Foundation is derived from gifts and bequests, government grants and subsidies, and from direct public appeals. The Foundation has formed standing committees in the country districts of South Australia and the Northern Territory to assist in the expansion of its anti-cancer activities.

The National Heart Foundation

The National Heart Foundation of Australia, together with its South Australian Division, was established in February 1959. The National Heart campaign of 1961 raised \$5,124,000 for the work of the Foundation, of which \$662,000 was contributed in South Australia. An appeal for further funds which was made during 1969 raised \$268,000 in South Australia.

The campaign funds are being spent on research (70 per cent), education (15 per cent) and rehabilitation (15 per cent). Research funds, distributed at the national level, support projects in various departments at the University of Adelaide, and at the Institute of Medical and Veterinary Science, the Royal Adelaide Hospital and the Adelaide Childrens Hospital. Research funds are also used in providing local and overseas fellowships and travel grants.

The National Heart Foundation Centre in Adelaide was established by the South Australian Division in 1963 for the rehabilitation of patients suffering from the effects of heart disease and stroke. Particular attention is given to professional and community education, to placement in suitable employment and to the provision of a full range of domiciliary rehabilitation services for stroke patients.

HEALTH SERVICES USAGE IN SOUTH AUSTRALIA

A population survey is conducted by the Commonwealth Bureau of Census and Statistics in February, May, August and November each year of a sample of households throughout Australia. At each selected household information is collected by means of personal interviews conducted by specially trained interviewers.

As part of the February 1972 survey, this means of obtaining data was used to derive measures of some characteristics of the incidence and distribution of health services used or required by one per cent of the population of South Australia during 1971. Occupants of approximately 3,800 private dwellings throughout the State were asked a pattern of carefully worded pretested questions and the special procedures adopted in classifying the results of this survey are described, together with relevant definitions and tables derived, in the *Survey of the Use of Health Services* bulletin published by the Deputy Commonwealth Statistician, Adelaide. Some findings of this survey, expanded in accordance with accepted statistical principles to represent the population of the State as a whole, are recorded in the following tables.

The next table has been prepared from the answers to the questions:

- (i) Did you use any health services during 1971?
- (ii) What services did you need but not use during 1971?

Reported Use of and Need for Health Services: South Australia, 1971

Particulars	Adelaide Statistical Division Age Group (years)			South Australia Age Group (years)		
	0-14	15-64	65 and Over	0-14	15-64	65 and Over
	'000 persons					
Persons reported as using some services ...	177.3	418.3	64.6	250.8	578.4	84.5
With no need for additional services ...	173.7	399.3	63.4	246.7	555.5	82.6
With need for additional services	3.5	18.9	(a)	4.2	22.9	(a)
Persons reported as not using services ...	53.1	123.9	10.8	87.0	175.4	15.7
With no need for additional services ...	52.9	120.4	10.2	86.6	170.9	14.9
With need for additional services	(a)	3.5	(a)	(a)	4.4	(a)

(a) Too small to be statistically acceptable or no relevant answer received.

The preceding table indicates that an estimated 77 per cent of the population had cause to avail themselves of existing health services and of these the majority, an estimated 74 per cent, indicated that they had no need for additional services

to those already available. The estimated percentages were almost identical for the population within the boundaries of the Adelaide Statistical Division, being 78 per cent and 75 per cent respectively.

The survey made no attempt to account for the total number of individual services received by the representative sample but instead recorded which of the existing health services were utilised or needed for a particular illness, condition or injury. Thus a female who had undergone a series of pre-natal examinations by a general medical practitioner and had then proceeded with a normal birth as a hospital in-patient was recorded as utilising two services—once for a general medical practitioner service and once for a hospital in-patient service.

Each of the following tables shows an estimated 2,142,500 utilisations of such services during 1971. This is approximately 1.8 per head of the population. 'Diseases of the respiratory system' was the predominant category for which services were utilised, accounting for an estimated 19 per cent of total reported utilisations and 27 per cent of reported general medical practitioner utilisations. Conditions in this group were responsible for 30 per cent of reported uses of services for the 0-14 year age group, 16 per cent for the 15-64 year age group and 10 per cent for the 65 years and over age group.

Reported Use of Type of Health Services and Related Conditions South Australia, 1971

Illnesses, Diseases Etc.	Hospitals		Medical Practitioners		Opticians, Optome- trists, Physio- therapists X-ray Units	Other Services	Total
	In- patients	Out- patients	General	Specialist			
				'000			
Infective and parasitic diseases	3.0	(a)	74.6	(a)	(a)	(a)	84.9
Neoplasms	6.8	3.0	11.1	8.6	(a)	(a)	31.6
Endocrine, nutritional and metabolic diseases	3.2	(a)	16.6	3.4	(a)	(a)	26.2
Diseases of blood and blood- forming organs	(a)	(a)	8.2	(a)	(a)	(a)	13.9
Mental disorders	(a)	(a)	11.8	3.6	(a)	(a)	21.4
Diseases of nervous system and sense organs	8.5	9.8	80.8	27.7	14.1	4.7	145.6
Diseases of circulatory system	10.8	4.8	73.5	11.6	(a)	(a)	105.2
Diseases of respiratory system	20.9	8.7	346.4	14.6	5.7	8.9	405.1
Diseases of digestive system	19.8	4.2	69.0	15.6	6.1	(a)	117.5
Diseases of genito-urinary system	16.5	4.2	41.9	15.4	3.4	(a)	82.9
Pregnancy, maternal and child care	29.1	(a)	38.6	9.1	(a)	25.6	107.5
Diseases of skin and subcuta- neous tissue	4.6	5.5	54.4	11.0	(a)	8.0	84.3
Diseases of musculoskeletal system and connective tissue	4.4	3.7	58.0	11.3	21.3	24.0	122.8
Congenital anomalies and perinatal conditions	(a)	(a)	5.0	4.6	(a)	(a)	15.5
Symptoms and ill-defined conditions	6.4	4.8	76.8	9.5	(a)	8.4	108.6
Accidents, poisonings and violence	21.9	37.3	120.3	16.4	31.5	10.8	238.2
Examination without reported diagnosis	(a)	11.5	138.2	36.3	105.2	23.8	317.7
Preventive measures	3.4	(a)	71.1	(a)	(a)	19.0	96.8
All others	(a)	(a)	7.3	3.0	(a)	(a)	16.9
Total	171.2	110.7	1,303.6	209.2	200.7	147.0(b)	2,142.5

(a) Too small to be statistically acceptable or no relevant answer received.

(b) Includes 41,300 reports of chiropractors and osteopaths.

**Distribution of Health Conditions Reported, Sex and Age Groups
South Australia, 1971**

Illnesses, Diseases Etc.	Age Group (years)						All Ages	
	0-14		15-64		65 and Over		Males	Females
	Males	Females	Males	Females	Males	Females		
	'000							
Infective and parasitic diseases	26.6	24.7	14.8	16.9	(a)	(a)	42.2	42.7
Neoplasms	(a)	(a)	7.8	15.5	(a)	4.1	11.1	20.5
Endocrine, nutritional and metabolic diseases	(a)	(a)	8.8	9.6	(a)	3.1	12.2	14.1
Diseases of blood and blood-forming organs	(a)	(a)	3.0	5.8	(a)	(a)	4.6	9.3
Mental disorders	3.5	(a)	4.8	8.3	(a)	(a)	9.7	11.6
Diseases of nervous systems and sense organs	32.9	26.6	34.4	32.3	6.8	12.5	74.2	71.4
Diseases of circulatory system	(a)	(a)	28.8	38.5	13.3	23.3	42.8	62.4
Diseases of respiratory system	90.5	81.3	109.2	103.2	11.2	9.7	210.9	194.2
Diseases of digestive system	12.6	10.6	38.4	41.6	6.2	8.1	57.2	60.3
Diseases of genito-urinary system	(a)	3.7	12.5	57.1	4.2	3.5	18.6	64.3
Pregnancy, maternal and child care	11.4	12.9	(a)	8.3	(a)	(a)	11.5	96.0
Diseases of skin and subcutaneous tissue	10.0	10.1	30.3	27.1	(a)	4.3	42.8	41.5
Diseases of musculoskeletal system and connective tissue	3.1	(a)	50.5	48.6	6.0	12.3	59.6	63.2
Congenital anomalies and perinatal conditions	6.8	5.0	(a)	(a)	(a)	(a)	8.2	7.3
Symptoms and ill-defined conditions	12.9	11.5	26.3	45.1	4.7	8.0	44.0	64.6
Accidents, poisonings and violence	40.9	19.7	117.6	48.3	(a)	9.5	160.6	77.6
Examination without reported diagnosis	24.4	21.9	92.8	143.2	15.7	19.7	132.9	184.8
Preventive measures	22.1	24.6	18.1	29.9	(a)	(a)	40.8	56.1
All others	3.9	(a)	6.4	4.5	(a)	(a)	11.1	5.8
Total	307.2	260.6	605.7	760.8	82.0	126.2	994.9	1,147.6

(a) Too small to be statistically acceptable or no relevant answer received.

6.6 SOCIAL WELFARE

The Commonwealth and State Governments and a large number of voluntary agencies see to the social welfare of the population. The Commonwealth Government is concerned largely with providing fixed monetary pensions and benefits and repatriation services. State agencies operate in the fields of child welfare and the care of Aborigines and distribute emergency relief in contingencies where Commonwealth assistance is not available or proves insufficient. The voluntary agencies, many of which receive government aid, provide a wide range of services in various fields of social welfare.

COMMONWEALTH PENSIONS AND BENEFITS

EXPENDITURE

The following table sets out Commonwealth Government expenditure on social welfare. This includes social service payments, payments of national health benefits, grants under the Aged Persons Homes Act, and war and service pensions. It should be noted that the figures are for payments to recipients only, and do not include costs of administering the departments concerned.

Commonwealth Expenditure on Social Welfare, South Australia

Type of Benefit	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Social services:					
Age and invalid pensions (a) . . .	46,711	50,828	58,720	64,714	76,545
Widows pensions	5,937	6,815	8,053	8,969	10,458
Child endowment	17,835	18,162	20,287	18,284	19,766
Maternity allowance	670	688	698	718	707
Unemployment benefits	1,637	1,286	1,008	1,378	2,930
Sickness benefits	563	461	576	840	1,243
Other	572	861	1,289	1,627	2,034
Total social service payments . . .	73,925	79,105	90,631	96,530	113,683
National health benefits	25,448	28,411	33,476	41,773	50,586
Aged persons homes	2,090	2,359	2,176	2,944	2,386
War pensions (b)	13,836	15,355	15,182	15,754	17,307
Service pensions (b)	3,416	3,710	4,253	4,651	5,186
Total payments . . .	118,715	128,940	145,718	161,652	189,148

(a) Includes allowances to wives of invalids and to wives of invalids on behalf of children.

(b) Includes Northern Territory. Includes pensions paid to dependants.

COMMONWEALTH SOCIAL SERVICES

Brief details of Commonwealth pensions and benefits are given in this section; however in discussing the eligibility of persons for the various payments all the necessary qualifications and exceptions to the general rule have not been delineated. Similarly such terms as 'income' and 'property' have not been defined. For more complete details reference should be made to the booklet *Commonwealth Social Services* issued by the Department of Social Security.

Age and Invalid Pensions

Age pensions are payable to men aged sixty-five and over and women aged sixty and over, who have lived in Australia continuously for a period of ten years.

Invalid pensions are payable to persons aged sixteen years and over who have lived in Australia continuously for five years and who are permanently incapacitated to an extent of at least 85 per cent, or are permanently blind. Where the incapacity or blindness occurred outside of Australia, other than during a temporary absence, ten years continuous residence is necessary.

If a person subject to the ten year qualification for either pension has completed five years but not ten years continuous residence, but has lived in Australia for periods which, in total exceed ten years, he may be eligible. Absences from Australia in certain circumstances and residence in New Zealand or the United Kingdom may be treated as residence in Australia.

From October 1972, for both age and invalid pensions, the standard rate for an unmarried pensioner, or for a married pensioner whose husband or wife was not receiving an age or invalid pension, a tuberculosis allowance or a service pension, was \$20.00 a week. The married rate for a couple both being pensioners was \$17.25 a week each. Both the standard rate and married rate pensions are subject to a means test.

An additional pension of \$4.50 a week is payable for all children under sixteen years or student children under twenty-one years. An unmarried age or invalid pensioner having the custody, care and control of a child under

sixteen years or a student child under twenty-one years is paid a guardian's allowance of \$4 a week in addition to the pension. The guardian's allowance is increased to \$6 a week if there is a child under six years, or if there is an invalid child under sixteen years requiring full-time care and attention. The wife of a pensioner may be paid up to \$17.25 a week unless she is entitled, in her own right, to the age or invalid pension.

Up to \$4 a week extra may be paid to a single pensioner or a married couple (\$2 each) who pay rent or lodging. Income must be under \$5 a week (single) or \$10 a week (married couple) or assets must be under \$3,000 (single) or \$6,000 (married couple). These limits are lower for a pensioner with both income and assets.

The standard rate and married rate pensions, including any additional pension for children, are subject to a means test. Under the means test, a full pension is paid if the annual income plus one-tenth of the value of property in excess of \$400 (for a single pensioner) or \$800 (for a pensioner couple) does not exceed \$520 (for a single pensioner) or \$884 (for a pensioner couple). If the combined income and property figure exceeds \$520 (or \$884), the pension is reduced. The value of a house owned by a pensioner and occupied as the permanent home of that pensioner is exempt from the means test. Persons permanently blind are not subject to the means test.

Age and Invalid Pensions, South Australia

Number of Pensioners

At 30 June	Age Pensioners			Invalid Pensioners		
	Males	Females	Total	Males	Females	Total
1968.....	18,810	45,622	64,432	5,243	4,341	9,584
1969.....	19,483	46,848	66,331	5,692	4,593	10,285
1970.....	21,806	51,571	73,377	6,473	5,226	11,699
1971.....	23,447	54,315	77,762	6,151	5,023	11,174
1972.....	24,429	56,210	80,639	6,643	5,489	12,132

Widows Pensions

Widows pensions are paid to widows and other women who satisfy certain conditions; there is a means test on income and property.

There are three classes of pensions:

Class A, a widow with one or more children under sixteen years of age or a student child under twenty-one years in her custody, care and control;

Class B, a widow of at least fifty years of age with no children under sixteen years, or student children under twenty-one years, or a widow of at least forty-five years of age who ceases to be eligible for a Class A pension because she no longer has a child in her custody, care and control;

Class C, a widow under fifty years of age who has no children under sixteen years of age but is in necessitous circumstances within twenty-six weeks of her husband's death. If a widow is pregnant, a pension may be continued until the birth of the child when she may qualify for a Class A pension.

For Classes A and B the term 'widow' includes a deserted wife who has been deserted at least six months, a divorcee, a woman whose husband has been in prison at least six months and a woman whose husband is in a mental hospital.

Widows Pensions, South Australia
Number of Pensioners
At 30 June

Class	1968	1969	1970	1971	1972
A	3,480	3,734	4,317	4,623	4,898
B	3,922	3,948	4,291	4,415	4,459
C	9	5	8	2	6
Total	7,411	7,687	8,616	9,040	9,363

The normal residential qualification is five years continuous residence immediately before claiming a pension; where however, a woman and her husband were living permanently in Australia at the time of the event which qualified her as a 'widow' within the meaning of the Social Services Act no minimum period of residence in Australia is required. Certain absences are not considered as breaking continuity of residence, and residence in New Zealand or the United Kingdom counts as residence in Australia. The means test operates similarly to that for age pensions except that for a Class A widow the property component is relaxed to some degree.

From October 1972, the rates of pension were: Class A widows, \$20.00 a week, plus a mothers allowance of \$4 a week (\$6 if there is an invalid child or a child under six years), plus \$4.50 a week for each child under sixteen years or a student child under twenty-one years); for Class B widows, \$17.25 a week; for Class C widows, \$17.25 a week.

An additional payment of up to \$4 a week may be paid to widow pensioners who pay for rent or lodging, whose income is under \$5 a week and whose assets are also limited. In the case of a Class A widow the income limit may be increased by up to \$6 a week for each child.

Child Endowment

Persons resident in Australia who have the custody, care and control of one or more children under the age of sixteen are eligible for child endowment; approved institutions of which children are inmates are similarly eligible. Endowment is also paid for full-time students between the ages of sixteen and twenty-one years. There is no means test on child endowment, but one year's residence in Australia is required if the mother and child were not born in Australia; this requirement is waived if the Department of Social Security is satisfied that they are likely to remain in Australia permanently.

At 31 December 1972 endowment was paid at the rate of 50 cents a week for the first eligible child under sixteen years; \$1 for the second; \$2 for the third; and for each subsequent eligible child the rate increases by 25 cents a week over that payable for the next elder child *i.e.* \$2.25 for the fourth; \$2.50 for the fifth etc. Endowment of \$2 a week is paid for each child under the age of sixteen years in an institution, and \$1.50 a week for each full-time student between the ages of sixteen and twenty-one years.

Child Endowment, South Australia

At 30 June	Families			Institutions			Total Endowed Children
	Endowed Families (a)	Endowed Children		Approved Institu- tions	Endowed Children		
		Under 16	Students 16-20 (b)		Under 16	Students 16-20 (b)	
1968.....	159,723	351,366	18,801	56	1,912	197	372,276
1969.....	162,220	354,777	20,718	59	2,201	177	377,873
1970.....	165,245	358,421	20,794	59 (c)	1,297	(c) 135	380,647
1971.....	168,289	361,652	21,869	63	1,294	145	384,960
1972.....	170,599	362,830	23,306	64	1,545	145	387,826

(a) Excludes those with only endowed student children.

(b) Student endowment commenced 14 January 1964.

(c) Payments in relation to children in certain Aboriginal mission stations made direct to families instead of to institutions as formerly.

Maternity Allowances

Any woman, permanently resident in Australia, who gives birth to a child in Australia, is entitled to a maternity allowance. The amount payable depends on the number of existing children under sixteen years of age, and special allowance is made for multiple births. Maternity allowances are not subject to a means test.

At 31 December 1972 a mother with no other children under sixteen years of age was entitled to an allowance of \$30; where there were one or two such children the rate was \$32, and where there were three or more such children \$35. An extra amount of \$10 is paid for each additional child in multiple births.

Maternity Allowances, South Australia
(Claims granted during year)

Category	1967-68	1968-69	1969-70	1970-71	1971-72
Single births:					
No other children under 16....	7,880	8,096	8,424	8,890	8,975
One or two children under 16..	9,860	10,202	10,368	10,796	10,693
Three or more children under 16	3,147	3,183	3,000	2,740	2,467
Multiple births:					
Twins	217	201	237	247	251
Triplets	3	2	2	3	4
Total	21,107	21,684	22,031	22,676	22,390

Unemployment and Sickness Benefits

Unemployment and sickness benefits are paid to persons who suffer temporary loss of regular earnings because of unemployment, sickness, or accident. There is a means test on income but not on property. Persons eligible must be between sixteen and sixty-five years of age (sixty for women) with either twelve months residence or the intention to reside permanently in Australia.

A person receiving an alternative social service pension is ineligible for unemployment and sickness benefits. A married woman is not usually qualified to receive sickness benefit if her husband can support her.

To qualify for unemployment benefit a person must (a) be unemployed and be able to show that unemployment was not because of his being a direct participant in a strike, (b) be able and willing to undertake suitable work, and (c) have taken reasonable steps to secure work, including registration with the Commonwealth Employment Service.

The amount of income which a person may receive and still qualify for the maximum rate of benefit is \$6 a week for an adult or married person under twenty-one, and \$3 a week for a single person under twenty-one. The benefit is reduced by any amount in excess of these figures. For unemployment benefit the income of the claimant's husband or wife is taken into account. In the case of sickness benefit the claimant's husband or wife has a separate allowable income of \$8 a week; any income in excess of \$8 is a direct deduction from the spouse's dependant allowance of \$8.

From May 1972 the maximum weekly unemployment benefits and the maximum weekly short term sickness benefits payable were \$17 for an adult or a married minor, or a minor whose parents did not reside in Australia, \$11 for an unmarried minor eighteen to twenty years of age and \$7.50 for an unmarried minor sixteen to seventeen years of age.

Unemployment and Sickness Benefits, South Australia

Year	Unemployment		Sickness		Special (a)	
	Number of Benefits Granted	Average Number on Benefit (b)	Number of Benefits Granted	Average Number on Benefit (b)	Number of Benefits Granted	Average Number on Benefit (b)
1967-68	21,800	3,299	6,724	909	187	102
1968-69	18,153	2,576	5,895	755	(c) 894	(c) 243
1969-70	14,988	1,645	5,843	720	948	276
1970-71	20,015	2,025	6,603	868	1,063	286
1971-72	30,308	3,515	7,325	1,059	1,021	265

(a) Excludes special benefits to migrants in accommodation centres.

(b) Average number at the end of each week.

(c) From 1968-69 includes ex-nuptial confinement cases previously granted sickness benefit.

Long term sickness benefit was payable after six weeks continuous receipt of the short term benefit. The rates from October 1972 were \$20.00 a week for a person who received the \$17 a week short term benefit, and \$13.00 a week for a person who received either the \$11 or \$7.50 a week short term benefit. The long term benefit was not payable to a person while a patient in a hospital approved for payment of Commonwealth hospital benefits unless that person had dependants.

For unemployment benefit and for the short term and long term sickness benefits an additional \$8 weekly was payable for a dependent spouse, plus \$4.50 for each child under sixteen years.

Persons in receipt of the long term sickness benefit who pay rent, board and/or lodgings and who are entirely or substantially dependent upon their benefit, may receive a supplementary allowance of up to \$4 a week.

A special benefit may be granted to a person not normally qualified for unemployment or sickness benefit and who is not in receipt of some other social service pension or allowance, or a service pension, if he is unable to earn a sufficient livelihood for himself and his dependants.

Rehabilitation

The Commonwealth Rehabilitation Service assists people who are unable to work because of physical handicap or who have had to give up their employment because of sickness or injury. It aims at helping disabled people to reach their maximum physical fitness and to prepare for suitable employment. The service provides a co-ordinated programme of treatment and training to meet the special needs of each disabled person. Rehabilitation is provided free to persons receiving, or eligible to receive an invalid or widows pension, unemployment, sickness or special benefit. Recipients of tuberculosis allowance and children of fourteen and fifteen years otherwise likely to qualify for invalid pension at age sixteen are also eligible.

All rehabilitation activities in South Australia are concentrated at the Commonwealth Rehabilitation Centre, Felixstow. The centre has a treatment capacity of approximately 120, comprising forty residents and eighty non-residents.

When a person begins treatment he continues to receive his existing pension or benefit plus certain expenses. When vocational training begins the pension or benefit is suspended and a rehabilitation allowance is paid instead. Certain additional allowances may also be paid during the period of training. The rehabilitation allowance for an invalid pensioner or an unemployment, sickness, or special beneficiary is equal to and calculated in the same way as the pension for an invalid pensioner. A widow pensioner receives the same rate as under a widows pension.

The Commonwealth Employment Service works with the Rehabilitation Service to help find employment for disabled people. Loans may be granted to assist certain persons in the establishment of home employment.

Rehabilitation, South Australia

Year	Number Accepted for Rehabilitation	Number Placed in Employment	Expenditure (a)
			\$
1967-68	278	241	267,429
1968-69	235	176	289,962
1969-70	251	226	298,624
1970-71	280	223	394,448
1971-72	208	188	470,521

(a) Excludes capital expenditure on sites and buildings, and administrative cost of the Rehabilitation Service.

There is also a training scheme for Class A or Class B widow pensioners to help them to acquire a vocational skill to enable them to undertake full or part-time employment. This operates in much the same way as for those selected for training above, except that the pensioner is not required to be disabled to be eligible for training selection.

Training Scheme for Widow Pensioners, South Australia^(a)

Year	Number Accepted for Training	Number Placed in Employment	Expenditure (b)
			\$
1968-69	104	7	13,720
1969-70	200	31	43,218
1970-71	302	70	68,164
1971-72	278	119	92,353

(a) Scheme commenced September 1968.

(b) Excludes administrative costs of the Training Scheme.

Funeral Benefits

A funeral benefit is payable to the person who has paid, or is liable to pay, the cost of the funeral of an age or invalid pensioner or of a person who, but for his death, would have been granted an age or invalid pension. It is also payable in respect of the deceased child or deceased spouse of a pensioner or person who becomes a pensioner within six months after the death of the deceased person.

A funeral benefit is also payable in respect of deceased tuberculosis allowees or to claimants for tuberculosis allowance who, but for their claim for tuberculosis allowance, would otherwise have been eligible for a pension.

At 31 December 1972 the maximum benefit payable was \$20, or \$40 if the person responsible for payment of the funeral was a pensioner.

During 1971-72, 4,976 claims for funeral benefits were granted in South Australia.

Homes for the Aged

The *Aged Persons Homes Act 1954-1969* provides that grants may be made to certain organisations towards the capital cost of erecting or purchasing approved homes for aged people. Church, charitable, ex-servicemen's organisations and local governing bodies as well as any other approved organisation are eligible.

Grants may not exceed two-thirds of the capital cost of the home including land or twice the amount (excluding borrowings and other government grants) raised by the organisation towards the capital cost, whichever is less.

At 30 June 1972, 524 grants had been approved in South Australia since the inception of the scheme in 1954. The amount granted, \$27,503,207, was associated with the accommodation of 8,467 persons.

The *Aged Persons Homes Act* also provides for a personal care subsidy to be paid to eligible organisations for persons aged eighty years and over who receive approved personal care while living in hostel type accommodation provided by these organisations. The present rate of subsidy is \$10 a week for each qualified person.

At 30 June 1972 there were fifty-two approved homes with 1,035 qualified residents and the total personal care subsidy paid at that date was \$700,880.

Delivered Meals Service

Under the *Delivered Meals Subsidy Act 1970*, financial assistance is provided to organisations to establish, maintain, expand and improve 'meals on wheels' services. These organisations must be non-profit charitable, benevolent or welfare bodies not controlled by the Commonwealth or State Governments. The rate of

subsidy is \$1.50 for each ten meals supplied with a further 50c for each ten meals where fresh fruit or fruit juice is supplied.

At 30 June 1972 approvals had been given to eighteen metropolitan and twenty-eight country meals services which had served a total of 1,305,980 meals and the total amount of subsidy paid was \$130,598.

Sheltered Employment Assistance

The *Sheltered Employment (Assistance) Act* 1967-1970 provides for the payment of grants by the Commonwealth to eligible organisations to contribute towards the cost of purchasing, altering, or extending premises for use as sheltered workshops, purchasing equipment for workshops, renting premises for use as workshops and providing accommodation for disabled persons employed in sheltered workshops; the maximum amount payable by the Commonwealth is two-thirds of the total cost in each case. Religious, charitable, ex-servicemen's organisations and local governing bodies are eligible to receive financial assistance in establishing or extending workshops.

Approved workshops are expected to provide opportunities for disabled persons to earn up to the limits imposed by their disabilities. At 30 June 1972, twenty-eight grants amounting to \$693,423 had been approved for workshop premises in South Australia since the inception of the scheme on 30 June 1967.

From 26 October 1970 the range of Commonwealth grants was extended to include \$2 for \$1 subsidies for hostels for disabled persons who are engaged in normal employment, \$1 for \$1 subsidies towards the salaries of certain staff members employed by approved workshops and hostels, and the payment of a training fee of \$500 to organisations for each eligible employee trained by these organisations placed in open employment for not less than twelve months.

The *Social Services Act* 1947-1972 contains provision for the payment of a sheltered employment allowance, at the same rates as invalid pensions, which reduces on a graduated scale as workshop earnings increase. The allowance is payable to eligible disabled persons employed at a workshop approved for payment of the allowance. At 30 June 1972, 341 persons in South Australia were receiving the allowance.

Handicapped Children Assistance

The *Handicapped Children (Assistance) Act* 1970 provides for Commonwealth grants on a \$2 for \$1 basis towards costs incurred by eligible organisations in establishing and equipping training centres and also the cost of providing residential accommodation for handicapped children attending approved training centres. Organisations eligible to apply for subsidies are non-profit charitable, benevolent or welfare bodies (not controlled by the Commonwealth or State Governments), religious organisations and local governing bodies. Handicapped children for the purposes of this Act are persons suffering from a physical or mental disability who are under the age of twenty-one years and those who continue to receive approved training after reaching the age of twenty-one. Training which is designed to teach handicapped children the activities of daily living or which is of a social, remedial, pre-vocational or vocational nature will be accepted as approved training. General education for which special facilities are required will also be accepted.

Reciprocal Agreements

New Zealand. An agreement exists between the Governments of Australia and New Zealand for reciprocity in social services. The arrangements cover age and invalid pensions, widows pensions, child endowment, and unemployment and

sickness benefits, and apply to both permanent and temporary changes of residence. Residence in one country may be treated as residence in the other country in relation to entitlement to benefits in which a residential qualification applies. Persons from one country taking up permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country. Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

Britain. A reciprocal agreement on social services exists between Britain and Australia. Under the current agreement residence in one country may be treated as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies. Australians going to Britain for permanent residence are treated in Britain as if they had been insured under the National Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits. There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

NATIONAL HEALTH SERVICES

Expenditure

The following table shows Commonwealth Government expenditure from the National Welfare Fund on the various aspects of the national health services. The amounts shown are the direct costs of these benefits and services and do not include the cost of administering the services.

National Health Services Expenditure, South Australia

Type of Benefit	Year First Paid	1967-68	1968-69	1969-70	1970-71	1971-72
		\$'000				
Hospital and nursing home benefits (a)	1946	6,639	7,759	9,840	11,508	15,339
Medical benefits	1953	5,774	6,150	7,216	11,956	15,387
Pensioner medical service ...	1951	1,607	1,764	1,971	2,048	2,968
Pharmaceutical benefits (b) ..	1948	6,685	7,433	8,768	10,265	10,098
Pensioner pharmaceutical benefits (b)	1951	3,038	3,514	3,991	4,315	4,749
Anti-tuberculosis campaign ..	1947	700	632	611	597	763
Free milk for school children	1951	952	1,061	906	892	1,060
Miscellaneous	—	54	98	174	191	222
Total	—	25,448	28,411	33,476	41,773	50,586

(a) Includes Northern Territory for nursing home benefits.

(b) Includes Northern Territory.

Hospital Benefits

The Commonwealth pays hospital benefits to patients in approved hospitals under the following arrangements:

- (a) patients insured with a registered benefit organisation and in an approved hospital receive a benefit (\$2 a day) paid through the organisation. Details of registered organisations are given on pages 273-4;

- (b) uninsured patients are entitled to a benefit (80c a day) which is deducted from the patient's account and paid by the Commonwealth to the hospital;
- (c) pensioners enrolled with the Pensioner Medical Service and their dependants in standard wards of public hospitals are entitled to a special benefit (\$5 a day) which is paid to the hospital;
- (d) a benefit of \$2 a day is payable direct to approved hospitals for patients treated without charge;
- (e) special financial assistance for hospital benefits insurance is provided through the Subsidised Health Benefits Plan to low income families, to people receiving unemployment, sickness or special benefits and to migrant settlers for hospital expenses incurred during the first two months in Australia.

The rationalisation of the hospital insurance scheme, based on recommendations of the Nimmo Committee of Enquiry into Health Insurance outlined on pages 248 and 249 of the *South Australian Year Book* 1972, continued in 1971-72. During that year hospitals in South Australia adopted the principle of all-inclusive fee charging—that is, the charging of a single daily rate with no separate charges for individual extra services (apart from radiology and pathology which are covered under the medical benefits scheme).

Hospital benefit funds replaced their former multiple table system with four tables to match standard, intermediate and private ward charges in public hospitals and private ward charges in private hospitals. Fund benefit payments were limited so that they could not exceed the actual charges made by hospitals. Previously benefits were paid at the full insured rate, regardless of whether or not they exceeded the hospital charge.

Benefit organisations were also required to introduce a rule precluding from membership a contributor or dependant already insured or covered by membership of another hospital benefit organisation. Commonwealth benefit may not be payable where a patient receives a payment by way of compensation or damages.

Hospital Benefits, South Australia

Type of Benefit	1967-68	1968-69	1969-70	1970-71	1971-72
AMOUNT PAID (\$'000)					
Hospitals:					
Insured patients.....	1,998	2,037	2,173	2,356	2,493
Uninsured patients	103	99	88	56	48
Special Account patients (a) ...	367	574	1,439	2,040	3,744
Subsidised Health Benefit Plan patients	—	—	68	499	1,091
Patients treated without charge.	—	—	—	(b) 38	23
Pensioner patients.....	1,969	2,105	1,978	1,999	1,885
Nursing home patients (c)	2,202	2,944	4,094	4,520	6,055
Total	6,639	7,759	9,840	11,508	15,339

(a) Covers amounts paid for special account deficits (these being reimbursements to registered hospital benefit organisations for losses incurred on chronic or pre-existing ailments and long-term illness and advances in respect of these deficits).

(b) Payable from 1 July 1970.

(c) Includes Northern Territory.

A Commonwealth nursing home benefit is paid for all qualified patients in approved nursing homes, whether the patient is insured or not. The benefit is deducted from the patient's account and paid by the Commonwealth to the nursing home. From 21 October 1971 benefits for patients receiving ordinary nursing home care rose from \$2 to \$3.50 a day. In addition, since 1 January 1969, a supplementary Commonwealth benefit of \$3 a day has been paid to nursing homes (and deducted from patients accounts) for patients requiring and receiving intensive nursing care. During 1969-70, the first full financial year for which the supplementary benefit was payable, the additional \$3 a day was paid for 43.4 per cent of all days on which qualified patients were accommodated in approved nursing homes. This figure rose to 51.6 per cent in 1971-72. Commonwealth benefit may not be payable where a patient receives a payment by way of compensation or damages.

Medical Benefits

Commonwealth medical benefits are paid in respect of medical expenses incurred by persons who are members to registered medical benefits organisations or by the dependants of such members. The benefits are normally paid through the organisations to the member upon receipt of a medical practitioner's account. Medical benefits organisations, with minor exceptions, also pay a fund benefit equal to or greater than the amount of the Commonwealth benefits. Commonwealth benefits may not be payable where a patient receives a payment by way of compensation or damages.

Under the Health Benefits Plan which came into operation on 1 July 1970, medical benefits are closely related to the most common fees charged by doctors. The amount of the most common fee to be met personally by a patient ranged from 80 cents for a general practitioner surgery consultation to \$5 for services with common fees of \$40 or more. The maximum of \$5 also applies to the most common fees for an operation and services directly associated with it. The pattern of observance of these fees by the medical profession for the whole of the medical schedule averaged 87 per cent for the year ended March 1972.

From 1 July 1972 combined Commonwealth and Fund benefits ranged from \$2.60 for a general practitioner consultation to \$495 for certain major operations.

Special financial assistance for medical benefits insurance is provided through the subsidised medical services scheme to low income families, to people receiving unemployment, sickness or special benefits, and to migrant settlers for medical expenses incurred during the first two months in Australia. Expenditure for 1971-72 was \$259,000.

Commonwealth expenditure on medical benefits in South Australia in 1971-72 was \$15,387,000, representing 48.4 per cent of the cost of medical services for which benefits were payable. An amount of \$98,000 was paid by the Commonwealth to registered benefit organisations to cover losses incurred in paying benefits in cases of chronic or pre-existing ailments and long-term illness. Further details of medical benefits organisations are given on pages 273-4.

Pharmaceutical Benefits

Under the Pharmaceutical Benefits Scheme certain medicines, when prescribed by a doctor are made available to the general public upon the payment of \$1. Persons holding a Subsidised Health Benefit certificate are required to pay 50 cents and pensioners are supplied free of cost. The drugs and medicinal preparations

available as pharmaceutical benefits are determined on the advice of the Pharmaceutical Benefits Advisory Committee which also recommends the maximum quantities that can be prescribed. Pharmaceutical benefits are normally obtained through registered pharmacists but most public hospitals may also supply pharmaceutical benefits, as may doctors and certain recognised organisations in isolated areas.

Pharmaceutical Benefits, South Australia^(a)

Year	Number of Benefit Prescriptions	Cost of Benefit Prescriptions			Additional Costs to Commonwealth (b)
		Total Cost	Patients Contributions	Net Cost to Commonwealth	
	'000			\$'000	
1967-68	3,398	6,955	1,699	5,256	1,429
1968-69	3,798	7,905	1,890	6,015	1,417
1969-70	4,155	8,993	2,069	6,924	1,844
1970-71	4,527	10,338	2,255	8,083	2,182
1971-72	4,345	11,080	3,164	7,916	2,183

(a) Excludes pensioner benefits. Includes Northern Territory. (b) Payments to hospitals and miscellaneous services.

Pensioner Medical Service

The pensioner medical service is a general practitioner service provided free of charge to eligible pensioners and their dependants. The service does not extend to specialist treatment, general anaesthetics, X-rays, operations, or the treatment of fractures. Doctors participating in the service are remunerated by the Commonwealth on a concessional fee basis.

The two-yearly review of fees for pensioner medical services was made during 1970-71 and the Government decided to increase the fees from \$1.85 to \$2.50 for surgery consultations and from \$2.35 to \$3.60 for home visits. The increased fees operated from 1 July 1971 and will apply until 30 June 1973.

In addition to the general practitioner service, a comprehensive range of medicines is available free of cost upon presentation of a doctor's prescription.

Persons eligible for the pensioner medical service are those receiving an age, invalid, widows or service pension, and persons receiving a tuberculosis allowance. Dependent wives and children are also entitled to the benefits of the pensioner medical service.

Pensioner Pharmaceutical and Medical Benefits, South Australia^(a)

Year	Number of Pensioners and Dependants (b)	Number of Pharmaceutical Benefit Prescriptions	Commonwealth Payments for Services		
			Pharmaceutical	Medical	Total
	'000			\$'000	
1967-68 ..	108	1,693	3,038	1,612	4,650
1968-69 ..	113	1,874	3,514	1,770	5,284
1969-70 ..	117	2,053	3,991	1,979	5,970
1970-71 ..	120	2,127	4,315	2,056	6,371
1971-72 ..	124	2,188	4,749	2,979	7,728

(a) Includes Northern Territory.

(b) Enrolled at end of year.

Anti-Tuberculosis Campaign

Since 1948 the Commonwealth has paid for all additional capital expenditure on tuberculosis clinics and hospitals and for any increase in the cost of diagnosis, treatment, and control of tuberculosis.

The Commonwealth also pays allowances to people suffering from tuberculosis to encourage them to give up work and undergo treatment. The allowances are subject to a means test on income. At 31 December 1972 the maximum income permitted before allowances were affected was \$20 per week for a single person and \$34.50 for a married person.

Anti-Tuberculosis Campaign, South Australia

Commonwealth Expenditure	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Allowances paid to sufferers	80	61	60	52	33
Maintenance expenditure (a)	651	602	585	582	757
Capital expenditure	31	60	69	108	155
Total	762	723	714	742	945

(a) Includes administrative expenses not paid from National Welfare Fund.

At 31 December 1972 the allowance for a married person with dependent wife was \$37.75 plus \$4.50 for each dependent child under sixteen years. A single person without dependants, if not hospitalised, received \$23.25 or if receiving hospital treatment free of charge \$20.00. Widows or widowers with dependent children under sixteen years received \$28.00.

Free Milk for School Children

A Commonwealth reimbursement to the State Government permits the free distribution of one-third of a pint of milk daily to school children under the age of thirteen years. During 1972 a total of 955 schools, made up of 488 State schools, 144 private schools, and 323 kindergartens, creches and Aboriginal missions were supplied with the free milk.

The State Government administers the scheme and the Commonwealth meets the cost of milk supplied and half the cost of capital, administrative and incidental expenditure. At 30 November 1972 the approximate number of children participating in the scheme in South Australia was 139,000 while the cost relating to the milk supplied during 1971-72 was \$1,060,000.

REPATRIATION BENEFITS**War Pensions**

War pensions are paid by way of compensation to ex-servicemen and women who have suffered incapacity arising out of war service, to their eligible dependants, and to the dependants of those who have died as a result of war service. There are four main classes of war pensions.

The special (TPI) rate (\$48.00 a week from 28 September 1972) is payable to those who are deemed totally and permanently incapacitated.

The intermediate rate (\$34.00 a week from 28 September 1972) is payable to an ex-serviceman who, because of the severity of his war-caused incapacity, can work only part-time or intermittently and in consequence is unable to earn a living wage.

The general rate is payable to those who suffered war-caused disabilities but still retained some earning capacity. The pension payable depends on the degree of incapacity, the maximum from 28 September 1972 being \$14 a week, but an additional amount could be payable in some circumstances as a special compensation allowance, to a maximum of \$6 a week. Pensions are also payable for a wife and each child under sixteen years of age under both special and general pensions.

The widows rate is payable to widows of ex-servicemen who died as a result of war service, and to any children under sixteen years of age. An additional domestic allowance is payable to certain classes of widows. From 28 September 1972 the widows rate was \$20.00 a week and the domestic allowance \$8.50.

War Pensions, South Australia^(a)

Year	Pensions in Force at End of Year				Expenditure
	Incapacitated Ex-Servicemen	Dependants of Incapacitated Ex-Servicemen	Dependants of Deceased Ex-Servicemen	Total	
	Number				\$'000
1967-68 ..	20,730	32,024	5,094	57,848	13,808
1968-69 ..	20,573	30,193	5,101	55,867	15,325
1969-70 ..	20,349	28,586	5,199	54,134	15,151
1970-71 ..	20,125	27,075	5,193	52,393	15,722
1971-72 ..	19,844	25,612	5,126	50,582	17,270

(a) Excludes pensions payable under Seaman's War Pensions and Allowance Act and various Cabinet decisions: 1971-72; fifty-one pensions, expenditure \$36,000. Includes Northern Territory.

Service Pensions

Service pensions are payable to ex-servicemen who served in a theatre of war and have reached the age of sixty years (fifty-five for women) or who are permanently unemployable or suffering from pulmonary tuberculosis. The service pension is equivalent in amount to the social services age and invalid pensions and is subject to the same means test. It also confers eligibility for a full range of medical and dental treatment. The dependants of permanently unemployable or tuberculosis pensioners may continue to receive their appropriate allowance upon the death of the pensioner.

Service Pensions, South Australia^(a)

Year	Pensions in Force at End of Year				Expenditure (c)
	Ex-Servicemen	Dependants of Pensioner Ex-Servicemen	Dependants of Deceased Pensioners	Total (b)	
	Number				\$'000
1967-68 ..	5,379	1,395	391	7,165	3,416
1968-69 ..	5,399	1,245	414	7,058	3,710
1969-70 ..	5,810	1,490	434	7,734	4,253
1970-71 ..	5,949	1,540	465	7,954	4,651
1971-72 ..	6,025	1,556	458	8,039	5,186

(a) Includes Northern Territory.

(b) Excludes Act of Grace pensions—ten in 1971-72.

(c) Includes payments for Act of Grace pensions.

Medical Services

The Repatriation Department provides in-patient treatment, general practitioner services, certain specialist facilities, pharmaceutical benefits and dental treatment for eligible persons. A comprehensive rehabilitation and social worker service is also available. Medical treatment is provided for all disabilities attributable to war service and for pulmonary tuberculosis. General medical services are also available to service pensioners, war pensioners receiving the special, intermediate or maximum general rates, widows and dependants of ex-servicemen whose deaths were attributable to war service, and nurses who served in the 1914-18 War.

Repatriation: Medical Services, South Australia (a)

Year	In-Patients: Total Treated			Out-Patients: Number of Visits			Pharma- ceutical Benefits
	Daw Park	Birralee	Other Hospitals	Outpatient Clinic	Other Institutions	Visits to or by Medical Officer	
				Number			\$
1967-68	5,613	160	970	46,872	15,577	190,291	1,199,838
1968-69	5,707	146	975	46,123	12,027	204,602	1,170,715
1969-70	6,099	163	953	47,152	11,679	201,270	1,269,973
1970-71	5,919	138	900	47,547	13,830	194,107	1,322,498
1971-72	5,269	162	847	48,063	21,478	198,007	1,422,955

(a) Includes Northern Territory.

In-patient and out-patient treatment is provided at the Repatriation General Hospital, Daw Park. Facilities at the Outpatient Department include radiological, pathological and physiotherapy services in addition to medical specialist examinations. The Repatriation Department also maintains an auxiliary hospital, 'Birralee', at Belair, a section of which is set aside for the treatment of tuberculosis patients. The Repatriation Artificial Limb and Appliance Centre, as well as attending to repatriation needs, provides appliances and services for other Government departments and certain philanthropic organisations.

Education and Training

Assistance in education and training is provided, through the Repatriation Department, for children of ex-servicemen whose death, blindness or total and permanent incapacity was the result of war service. The Soldiers' Children Education Board guides and supervises the progress of children receiving such assistance (see pages 184-5).

In certain circumstances vocational training is also provided for disabled ex-servicemen and widows of ex-servicemen.

The Department is responsible under the *Defence (Re-establishment) Act 1965-1968* for the administration of the Vocational Training Scheme which is designed to provide national servicemen with post-discharge training where this is necessary for their effective resettlement.

Assistance is generally through the payment of allowances and fees, and the provision of books and equipment.

Other Services

Other assistance, through the Repatriation Department, includes gift cars for certain disabled ex-servicemen, aids for blinded ex-servicemen and business re-establishment loans. Funeral grants of up to \$50 are paid on the death of certain ex-servicemen and dependants.

STATE WELFARE SERVICES

EXPENDITURE

The following table shows net cost to Consolidated Revenue of Welfare Services over the five years to 30 June 1971. The figures relate mainly to the Department of Community Welfare (net cost of approximately \$6 million in 1970-71) but include also the provision of transport concessions and grants made to private welfare organisations.

State Expenditure on Welfare Services, South Australia
Net Cost to Consolidated Revenue Account^(a)

Service	1966-67	1967-68	1968-69	1969-70	1970-71
	Dollars				
Relief of destitute, aged, etc.	1,192,513	1,205,861	1,357,641	1,476,600	1,973,137
Child welfare:					
Institutions (b) ..	750,184	795,364	866,876	921,693	1,096,312
Other	638,534	671,550	727,622	890,753	1,083,162
Care of Aborigines ..	1,304,095	1,455,141	1,409,388	1,510,421	1,736,510
Other	221,700	220,953	235,191	338,780	342,327
Total	4,107,026	4,348,869	4,596,718	5,138,247	6,231,448

(a) Includes interest, maintenance of buildings, etc.; excludes capital expenditure from Loan Fund.

(b) Excludes reformative institutions.

COMMUNITY WELFARE

The first official activity for the social welfare of children and adults was taken soon after colonisation when the early State immigration authorities cared for new arrivals, and sometimes immigrants were accommodated temporarily in tents on the parklands. A more permanent solution of the problems of the destitute came with the first Destitute Persons Relief Act in 1842. In 1867 a Destitute Board was formally appointed and assumed responsibility for the welfare of both children and adults. In 1886 a State Children's Council was formed to deal with children, while the Destitute Board continued with its other work. The Children's Welfare and Public Relief Board was created by the Maintenance Act, 1926 to do the work of both these earlier authorities. The Chairman of the Board was the permanent head of the Children's Welfare and Public Relief Department.

In 1965 a new portfolio of Minister of Social Welfare was created. Subsequently the Children's Welfare and Public Relief Board was abolished under the Social Welfare Act, 1926-1965, and its powers and functions vested in the Minister of Social Welfare, a body corporate under the Act. The Department then became the Department of Social Welfare. On 1 July 1970 this Department was amalgamated with the Department of Aboriginal Affairs to form the Department of Social Welfare and Aboriginal Affairs.

The Social Welfare Act, 1926-1971, the Aboriginal Affairs Act, 1962-1968 and the Children's Protection Act, 1936-1969 were replaced by the Community Welfare Act, 1972 which became operative on 1 July 1972. Under this Act the Department became the Department for Community Welfare with the objectives of promoting the general well-being of the community, encouraging the welfare of the family as the basis of community welfare, promoting co-ordination of services and collaboration amongst various agencies and promoting research, education and training in community welfare.

The new Act provides for the establishment of community welfare centres at selected locations throughout the State and the full range of the Department's services will be available from these centres. A move in this direction has already been made with the establishment of district offices at Adelaide, Berri, Brighton, Christies Beach, Elizabeth, Enfield, Mitcham, Modbury, Mount Gambier, Murray Bridge, Norwood, Port Adelaide, Port Augusta, Port Lincoln, Port Pirie, Salisbury, Woodville and Whyalla, as well as branch offices at Ceduna, Leigh Creek, Mansfield Park, Marion and Oodnadatta. Offices are also planned at Campbelltown, Maitland and in the Mid-North.

Care and Supervision of Children

The Juvenile Courts Act, 1965-1971, under which the Department supervised young offenders, was replaced by the Juvenile Courts Act, 1971, from July 1972.

The emphasis of the new Act is on the welfare and rehabilitation of the young person although the right of the community to adequate protection within the law is not overlooked. The chief features of the new legislation are:

- (1) The introduction of a scheme of juvenile aid panels for the non-judicial treatment of juvenile offenders, truants and uncontrolled children. Each panel consists of a police officer (or a member of a panel of justices) and an officer of the Department for Community Welfare. The panels deal with all first offenders under sixteen years of age in the first instance and with children under that age who are involved in further offences or other misconduct if they are not under an existing court order.
- (2) Children under sixteen years of age can no longer be charged with an offence as such but the commission of an offence may constitute grounds on which to lay a complaint that a child is in need of care and control.
- (3) No child can be committed to the care and control of the Minister for the first time without a full assessment being made of his personal and social needs and a report being presented to the Court.
- (4) Provision is made for the appointment of a Judge in the Adelaide Juvenile Court.

A child from eight to eighteen years could be dealt with on an offence until 1 December 1972 when an amendment to the Act raised the minimum age from eight to ten years. Any child up to 18 years may be dealt with as a neglected or uncontrolled child and those up to school leaving age can be dealt with for truancy. In any of these cases the child may be placed under the care and control of the Minister of Community Welfare or on a bond, with supervision by a Departmental officer or attendance at a youth project centre being a condition of the bond. Either of the above court orders results in Departmental assistance for the child for the period specified by the Court.

Some children under the care and control of the Minister are placed in Departmental homes or centres for care, treatment or training. Many are placed with their parents, or with foster parents, or in other substitute care under the supervision of a social worker.

At 30 June 1972 the Department was operating twenty-five residential care homes and centres. The large number of family homes, cottage homes, hostels

and training centres allows a wide range of choice in selecting the environment most appropriate to the needs of each individual child.

The homes and centres under the control of the Department include McNally Training Centre for older youths who have been committed for residential training by a juvenile court following an offence, and Brookway Park which provides residential care and training for boys between the ages of ten and fifteen years, most of whom have been committed there by a juvenile court following an offence. Vaughan House caters for girls, generally from thirteen to eighteen years, placed there by a court following an offence or as uncontrolled. Windana, the only remand home for juveniles in this State, has accommodation for 129 children. The large Glandore Boys Home which, in the past, has cared for boys of primary school age who have been neglected, uncontrolled or who have truanted, is being replaced by a system of smaller cottage-type homes on the property. Seaforth Home provides open residential care for younger children placed under care as neglected or uncontrolled and for some children on remand or for safekeeping, and also for truants. Lochiel Park is a training centre for boys, generally between the ages of twelve and eighteen years, who are mentally retarded and under the care and control of the Minister. In addition, cottage and family homes provide a family-like atmosphere for small groups of children of both sexes.

Details of the number of children committed to the care and control of the Minister of Community Welfare are given in the following table. Of the 672 children committed during 1971-72, 178 were girls, of whom 79 were neglected or uncontrolled. Of 3,111 children under care and control at 30 June 1972, 2,072 were boys and 1,039 girls.

Children under Care and Control, South Australia^(a)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Number of children newly committed during the year:					
Offenders	529	609	515	386	484
Neglected	171	198	190	164	144
Uncontrolled	47	40	33	42	32
Truancy	10	6	16	14	12
Total	757	853	754	606	672
Number of State children at 30 June:					
Children in departmental institutions	530	636	620	539	455
Children not in institutions .	2,480	2,631	2,710	2,667	2,656
Total	3,010	3,267	3,330	3,206	3,111

(a) Excludes children on remand, not committed (902 on remand during 1971-72).

In addition, there were 850 children placed on bonds requiring supervision by Departmental officers during 1971-72 and the total number of such children at 30 June 1972 was 1,597 (1,368 boys and 229 girls).

The importance of keeping a child in his own home whenever possible cannot be over-emphasised and children are placed out of Departmental homes and centres as soon as possible. Review boards consider the social background of each child under care and control and make recommendations regarding action to be taken for the child's benefit and welfare.

Where a child is returned to his own home from an alternative placement, support is continued to the whole family through counselling, the motivation of self-help programmes, and the full utilisation of appropriate resources throughout the Department and the community. The same services of a social worker are available to all children under care and control or on bonds with supervision as well as to other families in the community seeking help.

Other responsibilities of the Department's social workers include the investigation of allegations that children are neglected, ill-treated or uncontrolled, and the counselling of youths and children voluntarily referred to Departmental officers. Children in the latter category numbered 189 at 30 June 1972. Departmental social workers are also appointed as attendance officers under the Education Act to assist in the prevention of school truancy. Medical and other specialists including psychologists are employed within the Department.

Licensing of Foster Parents and Children's Homes

Under the Community Welfare Act, 1972 every foster parent caring for a child under the age of fifteen years must be approved by the Director-General for Community Welfare, who is responsible for each child's welfare. Departmental officers visit such homes regularly. Children's Homes and Child Care Centres must also be licensed by the Director-General.

Adoptions

South Australia has had an Adoption of Children Act since 1925, the current legislation being the Adoption of Children Act, 1966-1971. Under this Act the interests of the children are considered paramount; the right to place children for adoption is restricted to the Director-General of Community Welfare or to private adoption agencies which the Director-General has approved. The adoptive parents who must be approved by the Director-General become the legal parents once the adoption order is made (usually about six months after placement). Adoptions made in other Australian States are recognised in South Australia; similarly South Australian adoptions are recognised in the other States. A more detailed account of the South Australian legislation was included on pages 221-4 of the *South Australian Year Book* 1968.

There are two types of adoptions, namely adoptions by placement and other adoptions. Adoptions by placement include those adoptions where the child is normally placed with the adoptive parents direct from birth, or within 12 months of birth (in a few cases the child may not be placed until after 12 months from birth). Other adoptions mainly comprise those cases where children of a former marriage are adopted into the present marriage. The following statistics relate to those adoptions for which an order was made in the stated period, and not to the number of placements or other adoptions occurring in that period.

Number of Adoptions, South Australia

Age of Child (a)	1967-68	1968-69	1969-70	1970-71	1971-72
Under one year	562	590	582	635	510
One year and under two	38	31	44	44	44
Two years and under six	81	68	77	69	89
Six years and under thirteen	85	75	86	100	88
Thirteen years and under sixteen	6	19	23	15	19
Sixteen years and over	8	14	22	16	26
Total	780	797	834	879	776

(a) At date of adoption order.

Of the total of 776 adoptions (383 males and 393 females) in 1971-72 (103 less than in 1970-71), 548 were placed and 228 were other adoptions. The average waiting time for a child to be placed varies from year to year, depending on the number of applicants and the number of children surrendered. For orders made during 1971-72 it was 6.5 months for males and 8.5 months for females, indicating the preference for adopting females.

For adoption orders relating to children placed in 1971-72, the average age of the natural parents at the date of birth of the children was 20.8 years for the mother and 23.9 years for the father, while for the adoptive parents the respective ages at the date of adoption order were 31.2 and 33.8. The average age of adoptive parents for all adoptions, *i.e.* placed and other, was 32.0 for the mother and 34.7 for the father.

The following table shows details of the age of the adoptive parents for children placed in 1971-72.

Age of Adoptive parents at Date of Adoption Order: Children Placed, 1971-72

Age of Mother (Children Placed)	Age of Father								Total	
	Under 21	21-24	25-28	29-32	33-36	37-40	41-44	Over 44		Un- known
Under 21 .	—	1	—	—	—	—	—	—	—	1
21-24	—	8	29	6	1	—	—	—	—	44
25-28	—	4	63	79	19	5	—	2	—	172
29-32	—	1	12	64	60	21	1	3	—	162
33-36	—	—	3	5	37	27	11	4	—	87
37-40	—	—	—	1	6	19	17	7	—	50
41-44	—	—	—	—	3	4	5	9	—	21
Over 44 ..	—	—	1	—	—	—	1	7	—	9
Unknown	—	—	—	—	—	—	—	—	2	2
Total ..	—	14	108	155	126	76	35	32	2	548

Immigrant Children

The Department for Community Welfare makes inquiries regarding accommodation and supervision of proposed migrants under twenty-one years of age, who will not be living with a parent or near relative. Under the Commonwealth *Immigration (Guardianship of Children) Act 1946-1952* the Minister of Community Welfare becomes guardian of these children. There were twenty-seven at 30 June 1972.

Legal Services

Prosecutions for neglected, ill-treated and uncontrolled cases are carried out by officers of the Department for Community Welfare who may also appear in Court where State children are involved. The Department assists by providing reports on the social background of children whose cases are considered by the Courts.

The Department provides a free legal service to deserted wives and other persons with maintenance, matrimonial and domestic problems. Officers interview and advise wives and husbands and negotiate with other parties and solicitors for settlements.

When necessary the officers institute legal proceedings and appear in Court on behalf of those seeking assistance to obtain Orders for separation, custody of children, access and maintenance. The Department does not take action for divorce. Some 1,650 maintenance payments are collected and paid weekly to deserted wives by the Department. Assistance is given to unmarried mothers in affiliation cases.

Financial Assistance

The Director-General for Community Welfare may, subject to any directions of the Minister, provide assistance to families or individuals in need. The assistance may be provided in the form of money or commodities or the provision of other services which will promote the welfare of the family or individual.

During 1971-72 financial assistance was issued to 9,924 applicants, representing 22,654 persons. Deserted wives accounted for 20 per cent and unemployed people for 57 per cent of the total cases provided with financial assistance.

The Department provides residential care in a home at Magill for destitute or necessitous adults most of whom are pensioners. The daily average occupancy of the Magill home was 167 during 1971-72.

To deal with cases of emergency a staff of house-keepers is provided for full-time service in homes where there are children and the mother is temporarily sick or incapacitated. A charge is made for this service, but this can be reduced in cases of financial need.

Aboriginal Advancement

Welfare services for Aboriginal people are administered by the Department for Community Welfare. However, the special needs of Aboriginal people have resulted in the establishment of an Aboriginal Resources Division within the Department. This Division has the responsibility of communicating the urgency of Aboriginal problems to operational divisions of the Department and to other Government departments and social agencies. Its task is to increase support to the Aboriginal people and assist in their advance towards improved standards and dignity.

Particular areas in which the Division is active include the promotion of self-government on Aboriginal Reserves through the Reserve councils, the examination of ways and means of overcoming unemployment and the associated problems and studies of health, housing and educational needs of Aboriginal people.

Aboriginal Reserves

There are eight Aboriginal reserves in this State on which Departmental staff are employed and three Aboriginal missions operated on similar lines. These centres provide vocational training, health, education and housing facilities to give Aborigines the opportunity to adopt some modern modes of living within the security of their own communities, or they facilitate life in comparatively traditional ways for those Aborigines who choose this. There are reserves at Amata, Coober Pedy, Davenport, Gerard, Indulkana, Koonibba, Point McLeay and Point Pearce, and missions at Ernabella, Nepabunna and Yalata.

From July 1972 the Point Pearce Aboriginal Reserve has been managed and controlled by the Aboriginal Lands Trust in line with the goal that the people should manage and control the Reserve themselves.

**Aboriginal Reserves, South Australia
Net Cost to Consolidated Revenue**

Year	Point Pearce	Point McLeay	Davenport	North-West Reserve	Coober Pedy	Gerard	Koonibba	Indulkana	Total
	Dollars								
1967-68	136,638	83,046	158,741	135,970	32,441	101,312	101,514	51,855	801,517
1968-69	99,035	89,900	157,461	99,481	35,220	97,548	69,473	41,668	689,786
1969-70	134,764	84,350	147,355	105,978	38,151	87,395	83,596	65,177	746,766
1970-71	129,041	96,435	161,795	129,303	33,880	100,618	124,934	77,269	853,275
1971-72	93,350	88,619	160,993	177,487	39,443	91,896	164,712	96,817	913,317

The Commonwealth Government made \$800,000 available for Aboriginal welfare in South Australia in 1971-72 to be used mainly for housing, health, education and employment programmes. The financing of Aboriginal business enterprise is undertaken directly by the Commonwealth Office of Aboriginal Affairs.

At the 1966 Census 5,505 persons (2,914 males and 2,591 females) were reported as having 50 per cent or more Aboriginal blood. It has been estimated that excluding itinerant Aborigines and those who were not identified as Aborigines there were in South Australia at 30 June 1972 approximately 9,780 persons wholly or partly of Aboriginal descent.

Other Welfare Activities

The State Government has an agreement with various transport authorities for the carriage of certain disabled persons, pensioners and ex-servicemen on public transport either free of charge or at a reduced fare. The cost to the Government of this service in 1971-72 was \$827,800 of which \$639,800 represented fare concessions to, and costs of transport to and from hospitals of, pensioners; \$20,000 to blind persons; and \$155,300 to blind and incapacitated ex-servicemen.

The Government through the Chief Secretary also makes annual grants to various charitable agencies and institutions. In 1971-72 these included \$156,000 to the Royal Institution for the Blind; \$241,000 for Aged Citizens Clubs and Home Care; \$198,000 for Nursing Homes for Aged Persons; \$95,000 for Alcohol and Drug Addicts Treatment Board; \$70,700 for Bedford Industries (sheltered workshops); \$20,600 for Phoenix Society (Sheltered Workshops); \$20,600 for Mentally Retarded Children's Society; and \$26,000 to the Prisoners' Aid Association.

PRIVATE WELFARE SERVICES

There are numerous charitable and benevolent organisations working within South Australia. A large proportion of these derive revenue from regular donations, subscriptions and income from bequests; nearly all derive revenue from special functions. A number also receive Commonwealth, State or local government grants. The Collections for Charitable Purposes Act, 1939-1947, requires the registration of charitable organisations before they may actively solicit funds.

Organisations which have a wide range of activities include the Australian Red Cross Society, Service to Youth Council, the welfare bureaux and missions

of the various churches, and organisations catering for ex-servicemen and their dependants. Most of these agencies maintain full-time staff and generally employ professional social workers. Other organisations cater for more specific needs, covering a wide range of physical and sociological disabilities. This includes the care of physically and mentally handicapped persons such as crippled children, the blind, deaf-mutes and alcoholics; also of specific groups such as aged persons, Aborigines and migrants. Many of these organisations depend largely or entirely on voluntary aid.

For details of the numerous bodies concerned with social welfare, reference should be made to the *Directory of Social Resources* published jointly by the South Australian Council of Social Services and the Department of Public Health.

For those in need, the Citizens Advice Bureau advises on how to benefit from and how to use wisely the many services provided by the Commonwealth and State Governments and the various voluntary organisations.

REGISTERED MEDICAL AND HOSPITAL ORGANISATIONS

Commonwealth medical benefits and certain hospital benefits operate on the principle of Commonwealth support of voluntary insurance towards meeting medical and hospital expenses. For access to these benefits persons must be insured with a registered organisation. These are non-profit organisations and include a number of Friendly Societies. In most cases both medical and hospital benefits are provided by the one organisation.

Registered Hospital Organisations, South Australia

Particulars	Unit	1967-68	1968-69	1969-70	1970-71	1971-72
Registered organisations (a) ..	No.	13	13	12	10	9
Membership (a)	'000	411	419	430	433	433
Estimated persons covered (a)	'000	997	1,021	1,051	1,069	1,076
Fund benefits paid	\$'000	7,921	9,823	12,234	14,198	20,396

(a) At end of period.

For hospital benefits the contributions (premiums) depend on the scale of fund benefits required, with separate rates for single persons and for married persons and their dependants.

From 1 July 1970 all medical benefits organisations pay medical benefits at the same rate but contribution rates may vary slightly between funds. Contributions can be made to give either individual or family cover.

Details of registered medical organisations are given in the following table. The number of members has increased steadily over the past ten years from 291,000 at 31 June 1962 to 420,000 in 1972. In this period the number of professional services per member increased from 8.12 in 1961-62 to 11.67 in 1971-72.

Registered Medical Organisations, South Australia

Particulars	Unit	1968-69	1969-70	1970-71	1971-72
Registered organisations (a)	No.	8	7	7	7
Membership (a)	'000	392	403	408	420
Estimated persons covered (a)	'000	980	1,010	1,050	1,057
Cost of medical services:					
Met by fund benefit	\$'000	6,077	7,124	7,948	9,374
Met by Commonwealth benefit (b)	\$'000	6,097	7,149	11,767	15,074
Met by insured member	\$'000	4,317	5,336	4,193	3,462
Total	\$'000	16,491	19,608	23,908	27,910
Proportion (c) paid by:					
Fund benefit	Per cent	36.9	36.3	33.2	33.6
Commonwealth benefit	Per cent	33.2	31.6	43.5	48.4
Insured member	Per cent	29.9	32.1	23.3	18.0
Fund benefits for ancillary services (d)	\$'000	276	323	280	312
Professional services per member:					
General practitioner	No.	6.57	6.97	7.08	7.15
Other	No.	3.59	4.04	3.98	4.52
Total	No.	10.16	11.01	11.06	11.67

(a) At end of period.

(b) Excludes payments to special account deficits, Subsidised Health Benefits Plan fund reimbursement and SHBP management expenses.

(c) Based on proportions paid in relation to matched services, i.e. those which attract both Commonwealth and Fund benefits.

(d) Services for which Commonwealth benefits are not provided.

FRIENDLY SOCIETIES

Friendly Societies are mutual organisations paying medical, hospital and other benefits to members and dependants in time of need. These societies are required to register under the Friendly Societies Act, 1919-1971. The Act is administered by the Chief Secretary through the Public Actuary who approves the table of contributions, the level of benefits and generally sees that the societies' rules and practices are in accordance with the law.

A number of Friendly Societies are registered to pay Commonwealth medical and hospital benefits (see previous section), while others re-insure such benefits through a society created for this purpose.

Other benefits offered by the societies include sickness, funeral, pharmaceutical and physiotherapy benefits; endowment assurance is also available. The Friendly Societies Act requires that separate funds be maintained for each of these benefits and members may contribute for all or for only a selection of benefits. However, a person is considered to be a full benefit member only if he contributes for sick pay and funeral benefits regardless of contributions for other benefits.

The level of benefits paid varies between societies, with sickness benefits generally on a declining scale as the period of illness lengthens. The Friendly Societies Act limits to \$4,000 any payment for endowment or funeral benefits and to \$21 any weekly payment to members for sickness or superannuation.

Friendly Societies, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Number of registered societies (a)	14	14	14	14	13
Number of members (a) (b)	51,070	50,880	50,796	50,488	50,077
Revenue (c):	\$'000				
Contributions and levies	6,947	7,093	12,547	9,993	11,744
Interest, dividends and rent	808	869	938	1,110	1,243
Other	584	720	996	1,237	1,961
Total revenue	8,339	8,682	14,481	12,341	14,947
Expenditure (c):					
Sick pay	190	187	183	181	173
Medical attendance and medicine	2,473	2,680	4,612	3,386	3,878
Sums payable at death	143	145	153	151	145
Hospital benefits	2,738	3,347	6,563	4,982	7,198
Administration	1,057	1,143	1,260	1,483	1,641
Other	465	483	543	550	690
Total expenditure	7,065	7,985	13,314	10,733	13,726
Total funds	17,490	18,188	19,355	20,962	22,184

(a) At 30 June.

(b) Full benefit members; does not include those who contribute for medical and hospital benefits only.

(c) Receipts and payments of Commonwealth medical and hospital benefit subsidies excluded.

The Friendly Society Medical Association operates thirty pharmacies in the metropolitan area and one at Port Pirie where medicines are dispensed for Friendly Society members at concession prices.

The Friendly Societies Act also prescribes the nature of assets which societies may hold. Their most important investment is in property mortgages and in particular in housing loans to members. They may also invest in government securities.

6.7 MARRIAGE

Registration of marriage has been compulsory in South Australia since 1842 when Acts 'for regulating Marriages in the Province of South Australia' and 'for registering Births, Deaths and Marriages in the Province of South Australia' were passed. The present legislation relating to marriages is the Commonwealth *Marriage Act* 1961-1966 which came into full operation on 1 September 1963 superseding, in South Australia, the *Marriage Act, 1936-1957*.

The Principal Registrar of Births, Deaths and Marriages in South Australia carries out the statutory duties under the Act and has supervision over ministers of religion (as regards their duties under the Marriage Act) and other officers empowered to perform marriages. Only the Principal Registrar, the Deputy

Registrar, District Registrars appointed to the twenty-two registration districts, authorised ministers of religion and other authorised celebrants may celebrate marriages.

After a marriage the celebrant is required to forward the official certificate of marriage to the Principal Registrar who maintains at his office a register of all marriages celebrated in South Australia. In addition a copy of the marriage certificate is forwarded by the office of the Principal Registrar to the District Registrar who maintains a register of the marriages celebrated in his district.

The average annual number of marriages and the rates per 1,000 of mean population in selected ten-yearly periods since 1906 and numbers and rates for each of the most recent six years are shown in the following table.

Marriages, South Australia

Ten-Year Period	Average Annual Number of Marriages	Rate per 1,000 of Mean Population	Year	Number of Marriages	Rate per 1,000 of Mean Population
1906-15	3,596	8.86	1967	9,434	8.50
1916-25	3,978	8.16	1968	9,652	8.60
1926-35	4,001	6.97	1969	10,599	9.30
1936-45	6,122	10.14	1970	10,864	9.38
1946-55	6,436	8.92	1971	10,833	9.21
1956-65	7,016	7.35	1972	10,829	9.10

The crude marriage rate generally rose from 7.0 in 1960 to 9.38 in 1970 but has fallen slightly in the last two years. Influences underlying the increase include the upsurge of births immediately following the 1939-45 War period together with the effects of post-War immigration policy.

Particulars relating to first marriages and remarriages annually since 1962 are shown in the following table.

Marital Status of Persons Marrying, South Australia

Year	Bridegrooms			Brides			Percentage of Total Married					
							Bridegrooms			Brides		
	Bachelors	Widowers	Divorced	Spinsters	Widows	Divorced	Bachelors	Widowers	Divorced	Spinsters	Widows	Divorced
1962.....	6,318	268	435	6,284	302	435	90.0	3.8	6.2	89.5	4.3	6.2
1963.....	6,611	277	414	6,516	305	481	90.5	3.8	5.7	89.2	4.2	6.6
1964.....	7,052	285	428	7,034	282	449	90.8	3.7	5.5	90.6	3.6	5.8
1965.....	7,878	286	516	7,838	325	517	90.8	3.3	5.9	90.3	3.7	6.0
1966.....	8,168	323	560	8,165	306	580	90.2	3.6	6.2	90.2	3.4	6.4
1967.....	8,595	312	527	8,542	332	560	91.1	3.3	5.6	90.5	3.5	6.0
1968.....	8,828	309	515	8,821	324	507	91.5	3.2	5.3	91.4	3.3	5.3
1969.....	9,687	318	594	9,700	339	560	91.4	3.0	5.6	91.5	3.2	5.3
1970.....	9,900	333	631	9,961	339	564	91.2	3.0	5.8	91.7	3.1	5.2
1971.....	9,865	310	658	9,822	365	646	91.1	2.9	6.1	90.7	3.4	6.0

Before 1951, of the widowed persons remarrying, the number of males usually exceeded the females but since then the number of males has in most years been less than the number of females. However, in the case of divorced persons, the number of males remarrying has outnumbered the number of females remarrying since 1968; this has reversed a tendency which had existed since 1940.

The following statement shows age at marriage of bridegrooms and brides who married during 1971 classified by marital status.

Age at Marriage and Marital Status, South Australia, 1971

Age	Marital Status at Marriage							
	Bridegrooms				Brides			
	Bachelors	Widowers	Divorced	Total	Spinsters	Widows	Divorced	Total
Under 21 years	1,787	—	—	1,787	5,200	—	5	5,205
21 to 24 years	5,556	1	22	5,579	3,647	11	61	3,719
25 to 29 years	1,800	8	126	1,934	727	20	160	907
30 to 34 years	410	11	112	533	133	24	110	267
35 to 39 years	138	8	103	249	47	26	100	173
40 to 44 years	83	25	89	197	22	38	80	140
45 years and over ..	91	257	206	554	46	246	130	422
All ages...	9,865	310	658	10,833	9,822	365	646	10,833

In the following table of percentages of bridegrooms and brides in various age-groups, the earliest available figures in each sector have been shown together with figures for selected later years.

Age Distribution of Bridegrooms and Brides: Percentages to Total Marriages South Australia

Year	Under 21 Years	21 to 24 Years	25 to 29 Years	30 to 44 Years	45 Years and Over	Under 21 Years	21 to 24 Years	25 to 29 Years	30 to 44 Years	45 Years and Over
	ALL BRIDEGROOMS					ALL BRIDES				
1903.....	2.7	27.8	35.8	28.5	5.2	19.2	37.5	26.7	14.7	1.9
1911.....	3.3	28.7	37.1	25.6	5.3	17.1	37.4	28.3	14.7	2.5
1921.....	3.2	25.6	36.8	29.0	5.4	16.1	35.9	28.2	17.0	2.9
1931.....	6.8	30.8	33.7	22.8	5.9	25.8	37.2	21.2	12.9	2.9
1941.....	4.1	32.5	34.6	22.9	5.9	20.5	38.8	22.4	15.0	3.3
1951.....	6.2	37.3	28.1	20.6	7.8	27.8	36.6	15.8	14.6	5.2
1961.....	10.6	40.9	24.2	17.5	6.8	40.8	34.4	9.7	9.6	5.5
1967.....	15.7	46.8	20.4	11.5	5.6	45.8	36.0	7.6	6.2	4.4
1968.....	14.7	49.8	19.7	10.4	5.4	43.6	38.9	7.5	5.9	4.1
1969.....	14.7	51.7	18.6	9.7	5.3	44.5	38.5	7.6	5.3	4.1
1970.....	15.8	51.1	18.8	9.1	5.2	46.3	36.9	7.7	4.9	4.2
1971.....	16.5	51.5	17.9	9.0	5.1	48.0	34.3	8.4	5.4	3.9
	BACHELORS					SPINSTERS				
1928.....	5.8	33.4	37.4	21.1	2.3	23.9	40.5	22.5	12.1	1.0
1931.....	7.4	33.2	35.9	21.0	2.5	27.3	39.2	21.8	10.7	1.0
1941.....	4.5	35.0	37.0	21.6	1.9	21.9	41.4	23.0	12.7	1.0
1951.....	7.1	42.5	30.9	16.9	2.6	31.8	41.5	15.8	9.2	1.7
1961.....	11.9	45.5	26.3	14.9	1.4	46.1	38.2	9.3	5.3	1.1
1967.....	17.2	51.2	21.7	8.7	1.2	50.5	39.1	7.0	2.7	0.7
1968.....	16.1	54.3	20.5	8.0	1.1	47.7	41.9	6.9	2.9	0.6
1969.....	16.1	56.4	19.3	7.1	1.1	48.6	41.5	7.0	2.2	0.7
1970.....	17.4	56.0	19.3	6.4	0.9	50.4	39.6	7.1	2.3	0.6
1971.....	18.1	56.3	18.2	6.4	0.9	52.9	37.1	7.4	2.1	0.5

Since the ages of bachelors and spinsters marrying were first recorded in 1928, the percentages of those under 25 have generally increased from 39.2 and 64.4 to 74.4 and 90.0 in 1971 respectively.

The following table shows the average age of bridegrooms and brides during the last ten years.

Average Age at Marriage, South Australia

Year	Bridegrooms				Brides			
	Bachelors	Widowers	Divorced	All Bridegrooms	Spinsters	Widows	Divorced	All Brides
1962.....	25.8	56.9	42.5	28.0	22.4	49.3	38.8	24.6
1963.....	25.5	55.0	41.5	27.5	22.1	49.8	37.8	24.3
1964.....	25.2	55.6	41.9	27.2	22.0	49.2	38.6	24.0
1965.....	24.9	56.0	42.3	26.9	21.8	51.4	37.8	23.9
1966.....	24.7	55.4	40.6	26.8	21.8	51.6	37.3	23.8
1967.....	24.6	56.0	41.8	26.6	21.8	50.4	37.9	23.7
1968.....	24.5	57.4	40.5	26.4	21.8	51.0	37.5	23.6
1969.....	24.3	55.8	40.8	26.2	21.7	50.0	37.6	23.5
1970.....	24.1	56.9	40.4	26.1	21.6	52.4	37.6	23.4
1971.....	24.0	57.6	39.8	26.0	21.5	50.5	36.2	23.4

The difference in the average ages of bachelors and spinsters marrying was less than 3 years between 1942 and 1954. From then until 1966 it exceeded 3 years, but has narrowed from 3.4 in 1963 to 2.5 in 1971, the smallest difference since average ages of single bridegrooms and brides were first recorded in 1942.

MARRIAGE OF MINORS

The Commonwealth *Marriage Act* 1961-1966 stipulates the marriageable age to be eighteen years or over for a male and sixteen years or over for a female. Under exceptional circumstances a magistrate can, upon application by a party who has not attained marriageable age but who is at least sixteen in the case of a male or fourteen in the case of a female, authorise him or her to marry a particular person who is of marriageable age.

South Australian legislation operative before the Commonwealth Act, and proclaimed on 1 March 1958, provided that a marriage between persons either of whom was a male under the age of eighteen years or a female under the age of sixteen years should be void, with further provision, upon application, for the Chief Secretary at his discretion to waive the provisions in relation to males aged fourteen to seventeen years and females aged twelve to fifteen years. Before this it had been the practice to apply the provisions of British common law prohibiting the marriage of either a male under fourteen or a female under twelve.

In all cases where a party to a marriage is under twenty-one years, prior consent must be obtained from either both parents, one parent, a guardian or guardians, or other prescribed authority, according to the circumstances.

Figures relating to the marriages of minors for the five years to 1971 are shown in the following table.

Marriage of Minors, South Australia

Year	Age in Years							Total Minors	Percentage of Total Marriages
	14 or Less	15	16	17	18	19	20		
BRIDEGRROOMS									
1967.....	—	—	2	19	228	513	718	1,480	15.7
1968.....	—	—	1	19	204	501	692	1,417	14.7
1969.....	—	—	—	20	224	476	839	1,559	14.7
1970.....	—	—	2	26	244	568	878	1,718	15.8
1971.....	—	—	1	25	247	576	938	1,787	16.5
BRIDES									
1967.....	1	4	179	440	823	1,265	1,605	4,317	45.8
1968.....	—	7	176	391	866	1,293	1,480	4,213	43.6
1969.....	1	10	167	402	947	1,486	1,703	4,716	44.5
1970.....	—	13	196	510	1,025	1,585	1,698	5,027	46.3
1971.....	3	20	212	491	1,133	1,601	1,745	5,205	48.0

During the years 1965 to 1969 the proportion of minors being married showed little variation. This levelling-off followed a general upward trend commencing in the late 1930s; in 1939 the percentages were 3.1 for males and 16.5 for females. In the two years since 1969 there has been a further upward movement and the percentages of 16.5 for bridegrooms and 48.0 for brides in 1971 are the highest recorded since 1903, the year in which details for this age group were first separately tabulated.

RELIGIOUS DENOMINATION OF MARRIAGES

The number of marriages celebrated in South Australia by ministers of religion in 1971 was 9,231, representing 85.2 per cent of the total. Civil marriages numbered 1,602, or 14.8 per cent of the total. The following table shows the number and proportion of civil marriages and of marriages solemnised according to the rites of the principal religious denominations during the three years to 1971.

Marriages: Category of Celebrant, South Australia

Category of Celebrant	Number of Authorised Celebrants January 1971	Number of Marriages			Proportion of Total Marriages		
		1969	1970	1971	1969	1970	1971
Ministers of religion:							
Recognised denominations (a);							
Baptist	73	246	297	285	2.3	2.7	2.6
Catholic	257	2,171	2,275	2,169	20.5	20.9	20.0
Church of England	196	2,289	2,115	2,135	21.6	19.5	19.7
Churches of Christ	68	321	329	350	3.0	3.0	3.2
Congregational	57	347	342	337	3.3	3.2	3.1
Lutheran	123	624	585	651	5.9	5.4	6.0
Methodist	220	2,645	2,637	2,440	25.0	24.3	22.5
Orthodox (b)	15	176	184	159	1.7	1.7	1.5
Presbyterian	30	415	378	379	3.9	3.5	3.5
Salvation Army	37	49	59	71	0.5	0.5	0.7
Other	115	162	215	171	1.5	2.0	1.6
Other ministers	28	26	59	84	0.2	0.5	0.8
Civil Officers	26	1,128	1,389	1,602	10.6	12.8	14.8
Total	1,245	10,599	10,864	10,833	100.0	100.0	100.0

(a) Under authority of the Commonwealth *Marriage Act* 1961-1966.

(b) Includes churches grouped under this heading as proclaimed under the Commonwealth *Marriage Act* 1961-1966.

6.8 DIVORCE

LEGISLATION

The Supreme Court of South Australia has had jurisdiction in divorce from 1 January 1859, the date upon which the Matrimonial Causes Act, 1858 came into operation. The present law is contained in the Commonwealth *Matrimonial Causes Act* 1959-1971 which came into operation on 1 February 1961 and which provides a uniform law throughout Australia for dissolution of marriage and other matrimonial causes and vests the Supreme Courts of the States and Territories with jurisdiction to hear and determine causes under the Act. Its transitional provisions covered matrimonial causes instituted before 1 February 1961, and gave petitioners the advantages of the new Act without detracting from their position under the former legislation.

The principal form of relief petitioned for and granted by the Court is dissolution of marriage (commonly known as divorce) with provision also for petitions for nullity of marriage, judicial separation, restitution of conjugal rights and jactitation of marriage.

A decree of dissolution of marriage and in some instances of nullity of marriage is in the first instance a decree *nisi*. Under the provisions of the current Act, in general a decree *nisi* automatically becomes absolute at the expiration of three months, unless rescinded by the Court, or an appeal has been instituted or there are children of the marriage in respect of whom proper arrangements have not been made for welfare, advancement and education.

The grounds on which petitions can be filed for dissolution of marriage under the Commonwealth *Matrimonial Causes Act* 1959-1971 can be briefly described as: adultery; desertion for not less than two years; refusal to consummate the marriage; habitual cruelty for not less than one year; rape, sodomy or bestiality; habitual drunkenness or habitual intoxication by drugs for two years or more; frequent convictions for crime and failure to support (only on petition of wife); imprisonment for at least three years of a sentence of at least five years; conviction of attempted murder of or inflicting or attempting to inflict grievous bodily harm on the petitioner; failure for at least two years to pay maintenance; failure for at least one year to comply with a decree of restitution of conjugal rights; insanity; separation for at least five years; and presumption of death.

Details of the grounds covered in the 1858 Act and the changes to grounds made by enactment or amendment to State legislation before replacement by Commonwealth legislation were shown on page 264 of the *South Australian Year Book* 1971.

The main alterations to grounds in South Australia resulting from the Commonwealth legislation were that a petition on the ground of separation for five years no longer required a Court order granting judicial separation or relief from cohabitation as a pre-requisite, and the period for desertion to constitute a ground for dissolution of marriage was reduced from three to two years. In addition, the period of decree *nisi* is now three months, having been six months under State legislation.

It should be noted that fluctuations from year to year in the number of decrees granted may be independent of fluctuations from year to year in the number of petitions filed.

PETITIONS LODGED

Particulars of petitions lodged during the five years to 1972 are shown in the following table. In each of these years petitions for dissolution lodged by wives outnumbered those lodged by husbands. This pattern has prevailed for over fifty years, as petitions by husbands have rarely exceeded those by wives.

**Dissolution of Marriage and Other Matrimonial Causes
Petitions Filed, South Australia**

Year	Dissolution of Marriage			Nullity of Marriage	Judicial Separation	Total Petitions (a)
	By Husbands	By Wives	Total			
1968....	422	764	1,186	5	8	1,201
1969....	480	874	1,354	7	6	1,369
1970....	507	858	1,365	7	4	1,380
1971....	622	1,026	1,648	5	9	1,668
1972....	727	1,250	1,977	6	6	1,997

(a) Includes petitions lodged for dissolution or nullity: 1968, 1; 1969, 2; 1970, 2; 1971, 2; 1972, 4 and petitions lodged for dissolution or judicial separation: 1968, 1; 1970, 2; 1971, 4; 1972, 4.

DECREES GRANTED

The table below shows the number of decrees absolute granted for dissolution and nullity of marriage and decrees granted for judicial separation. While the large increase in decrees absolute granted from 1940 is partly because of legislative changes enacted in 1939, it also reflects the abnormal conditions experienced during and immediately after the 1939-45 War.

**Dissolution of Marriage and Other Matrimonial Causes
Decrees Absolute Granted, South Australia**

Period	Dissolution of Marriage			Nullity of Marriage	Judicial Separation
	To Husbands	To Wives	Total		
Annual Average:					
1926-30	48.0	58.6	106.6	0.6	0.4
1931-35	73.0	93.8	166.8	0.6	0.8
1936-40	105.0	137.4	242.4	1.4	1.8
1941-45	216.2	215.2	431.4	1.2	1.4
1946-50	317.0	329.0	646.0	3.6	1.6
1951-55	262.8	350.0	612.8	4.6	1.2
1956-60	244.2	294.2	538.4	7.6	1.6
1961-65	334.6	446.8	781.4	4.6	0.6
1966-70	363.8	599.2	963.0	5.8	1.8
Year:					
1968.....	336	579	915	4	3
1969.....	362	601	963	6	1
1970.....	354	585	939	1	2
1971.....	473	791	1,264	8	3
1972.....	479	756	1,235	4	2

In the table which follows details of the grounds on which petitions for dissolution have been granted are shown for the years 1968 to 1972.

Dissolution of Marriage: Grounds of Decrees Absolute, South Australia

Year	Grounds on which Granted							Multiple Grounds	Total
	Single Grounds								
	Adultery	Cruelty	Desertion	Drunkenness	Separation	Other			
HUSBAND AS PETITIONER									
1968.....	126	3	144	—	46	5	12	336	
1969.....	154	5	122	3	63	3	12	362	
1970.....	143	3	146	2	52	2	6	354	
1971.....	209	4	179	3	74	—	4	473	
1972.....	234	1	177	—	65	—	2	479	
WIFE AS PETITIONER									
1968.....	138	111	195	19	91	4	21	579	
1969.....	142	136	191	19	80	6	27	601	
1970.....	136	141	183	14	90	6	15	585	
1971.....	237	170	258	24	86	4	12	791	
1972.....	225	160	253	18	84	2	14	756	
ALL DISSOLUTIONS									
1968.....	264	114	339	19	137	9	33	915	
1969.....	296	141	313	22	143	9	39	963	
1970.....	279	144	329	16	142	8	21	939	
1971.....	446	174	437	27	160	4	16	1,264	
1972.....	459	161	430	18	149	2	16	1,235	

The ages at marriage of persons divorced for the five years to 1972 are shown in the following table.

Dissolution of Marriages: Decrees Absolute, Age at Time of Marriage South Australia

Year	Age at Marriage								Total
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and Over	Not Stated	
HUSBANDS									
1968....	73	460	202	79	36	23	42	—	915
1969....	93	489	216	77	39	19	29	1	963
1970....	95	471	222	77	29	20	23	2	939
1971....	139	694	254	82	37	25	32	1	1,264
1972....	132	680	250	84	34	19	35	1	1,235
WIVES									
1968....	308	394	109	42	19	16	27	—	915
1969....	362	422	93	41	16	10	19	—	963
1970....	374	372	94	46	22	14	16	1	939
1971....	486	562	120	34	24	14	24	—	1,264
1972....	475	549	106	46	21	17	21	—	1,235

Information of the relative ages at marriage of husbands and wives for marriages dissolved in 1971 is contained in the following table.

Dissolution of Marriage: Decrees Absolute, 1971
Relative Ages at Marriage of Husbands and Wives, South Australia

Age of Husband at Marriage	Age of Wife at Marriage							Total Husbands
	Under 20	20-24	25-29	30-34	35-39	40 and Over	Not Stated	
Under 20	117	20	2	—	—	—	—	139
20-24	295	358	34	5	1	1	—	694
25-29	63	131	49	9	1	1	—	254
30-34	7	37	21	9	7	1	—	82
35-39	2	11	8	3	9	4	—	37
40 and over	2	4	6	8	6	31	—	57
Not stated	—	1	—	—	—	—	—	1
Total wives....	486	562	120	34	24	38	—	1,264

The following table shows the duration of marriage, *i.e.* the interval between marriage and the date the decree was made absolute, for marriages dissolved during the last five years.

Dissolution of Marriage: Decrees Absolute, Duration of Marriage
South Australia

Year	Duration of Marriage (Years)									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	
1968....	99	273	165	137	117	70	34	13	7	915
1969....	89	260	192	147	144	78	34	12	7	963
1970....	94	250	182	157	108	93	32	15	8	939
1971....	108	380	247	185	169	100	54	11	10	1,264
1972....	137	380	228	158	159	100	53	13	7	1,235

Ages of husbands and of wives at time of decree absolute for each of the last five years are shown in the table which follows.

Dissolution of Marriage: Age at Time of Decree Absolute
South Australia

Year	Age at Time of Decree Absolute								Total
	Under 25	25-29	30-34	35-39	40-44	45-49	50 and Over	Not Stated	
	HUSBANDS								
1968....	42	152	153	147	119	112	190	—	915
1969....	38	154	172	139	157	117	185	1	963
1970....	45	153	162	139	133	134	171	2	939
1971....	67	230	226	185	172	166	217	1	1,264
1972....	58	252	224	181	160	144	215	1	1,235
	WIVES								
1968....	111	186	134	145	114	90	135	—	915
1969....	119	193	153	130	145	100	123	—	963
1970....	110	191	155	135	109	111	127	1	939
1971....	144	293	216	160	158	138	155	—	1,264
1972....	157	302	190	162	147	129	148	—	1,235

For marriages dissolved in 1971 the following table shows the relative ages of husbands and wives at the time of dissolution.

Dissolution of Marriage: Decrees Absolute, Relative Ages of Husbands and Wives at Time of Dissolution, South Australia, 1971

Age of Husband at Dissolution	Age of Wife at Dissolution								Total Husbands
	Under 25	25-29	30-34	35-39	40-44	45-49	50 and over	Not Stated	
Under 25	55	12	—	—	—	—	—	—	67
25-29	75	139	15	1	—	—	—	—	230
30-34	10	108	90	14	4	—	—	—	226
35-39	3	25	84	61	10	1	1	—	185
40-44	1	5	24	60	63	13	6	—	172
45-49	—	3	3	17	65	65	13	—	166
50 and over	—	—	—	7	16	59	135	—	217
Not stated	—	1	—	—	—	—	—	—	1
Total wives..	144	293	216	160	158	138	155	—	1,264

The following table shows the number of children of marriages related to duration of marriage for decrees absolute for dissolution granted in 1971.

Dissolution of Marriage: Decrees Absolute, 1971

Duration of Marriage, and Children of the Marriage^(a), South Australia

Duration of Marriage (Years)	Number of Marriages Dissolved With							Total Dissolutions of marriage	Total Children
	0 Children	1 Child	2 Children	3 Children	4 Children	5 Children	6 Children and Over		
Under 5	66	33	7	—	2	—	—	108	55
5-9	114	139	104	18	3	2	—	380	423
10-14	30	36	94	51	28	7	1	247	533
15-19	26	25	41	48	23	17	5	185	460
20-24	22	23	41	45	17	11	10	169	432
25-29	26	28	22	7	11	5	1	100	168
30-34	28	18	5	1	2	—	—	54	39
35-39	7	3	—	1	—	—	—	11	6
40 and over	10	—	—	—	—	—	—	10	—
Total dissolutions of marriage	329	305	314	171	86	42	17	1,264	—
Total children	—	305	628	513	344	210	116	—	2,116

(a) At time of petition.

Information collected for petitions filed covers living 'children of the marriage' under twenty-one years of age, which, as defined in the Act, includes also adopted children, children of the husband and wife born before marriage and children of either the husband or the wife if members of the household.

The following table shows particulars of the number of children of marriages dissolved in the last five years.

**Dissolution of Marriage: Decrees Absolute, Children of the Marriage
South Australia^(a)**

Year	Number of Marriages Dissolved With							Total Dissolutions	Total Children
	0 Children	1 Child	2 Children	3 Children	4 Children	5 Children	6 Children and Over		
1968....	279	213	216	117	53	22	15	915	1,415
1969....	256	210	240	156	64	24	13	963	1,616
1970....	283	196	228	131	53	32	16	939	1,517
1971....	329	305	314	171	86	42	17	1,264	2,116
1972....	349	301	293	172	78	26	16	1,235	1,949

(a) At time of petition.

PART 7

LABOUR

7.1 EMPLOYMENT

THE WORK FORCE

Particulars of the number of persons constituting the work force in South Australia are available from periodic population censuses. For the 1966 census the definition of the work force was revised to accord with the recommendations of the Eighth International Conference of Labour Statisticians, and the revised approach was retained for the 1971 census. The major factor in this change was the inclusion of a number of females working part-time who did not previously consider themselves as 'engaged in an industry, business, profession, trade or service'.

In the first table on page 287 population at the 1966 and 1971 Censuses is classified by occupational status which refers to the status of each person in his or her occupation *e.g.* employer, worker on own account, working for wages etc. Those persons reporting themselves as not engaged in an industry, business, profession, trade or service take as their occupational status 'not in the work force'.

The growth in the female proportion of the work force, evident between the 1954 and 1966 Censuses, has somewhat levelled off with females constituting 30.0 per cent of the work force in 1971 compared with 29.0 per cent in 1966. However the proportion of married females in the work force has continued to increase (from 13.8 per cent in 1966 to 18.9 per cent in 1971).

**Occupational Status of the Population, South Australia
Censuses 1966 and 1971**

Occupational Status	30 June 1966			30 June 1971		
	Males	Females	Persons	Males	Females	Persons
In work force:						
Employer	23,747	6,228	29,975	19,468	5,832	25,300
Self-employed ...	31,135	7,205	38,340	29,713	8,302	38,015
Employee	259,105	111,197	370,302	275,292	135,712	411,004
Helper	1,167	2,613	3,780	1,009	2,240	3,249
Unemployed	4,464	3,563	8,027	4,682	3,673	8,355
Total work force.	319,618	130,806	450,424	330,164	155,759	485,923
Not in work force....	228,912	412,539	641,451	255,887	431,897	687,784
Total population.	548,530	543,345	1,091,875	586,051	587,656	1,173,707 (a)

(a) Includes 3,109 full-blood Aborigines, who were not included in 1966 Census.

Occupation refers to the kind of work a person normally performs *e.g.* carpenter, clerk, and is classified according to the Australian Classification of Occupations which has been adapted from and closely adheres to the principles embodied in the International Standard Classification of Occupations issued by the International Labour Office, Geneva 1958. It contains 11 major groupings subdivided into 72 minor groups further subdivided into 367 individual categories. The following table shows the employed population at the 1971 Census classified by occupation.

Employed Population: Occupation, South Australia, 30 June 1971

Occupation Group	Males		Females		Persons	
	Number	Proportion of Total	Number	Proportion of Total	Number	Proportion of Total
		Per cent		Per cent		Per cent
Professional, technical and related workers	27,418	8.42	22,538	14.82	49,956	10.46
Administrative, executive and managerial workers	27,261	8.38	4,080	2.68	31,341	6.56
Clerical workers	25,980	7.98	43,061	28.31	69,041	14.46
Sales workers	19,211	5.90	20,911	13.75	40,122	8.40
Farmers, fishermen, hunters, timber-getters and related workers	35,069	10.78	7,922	5.21	42,991	9.00
Miners, quarrymen and related workers	1,823	0.56	32	0.02	1,855	0.39
Workers in transport and communication occupations	21,921	6.74	3,422	2.25	25,343	5.31
Craftsmen, production-process workers and labourers (n.e.i.) ...	140,981	43.31	18,161	11.94	159,142	33.32
Service, sport and recreation workers	11,686	3.59	25,758	16.94	37,444	7.84
Members of armed services, enlisted personnel	3,000	0.92	144	0.10	3,144	0.66
Occupation inadequately described or not stated	11,132	3.42	6,057	3.98	17,189	3.60
Total employed population ...	325,482	100.00	152,086	100.00	477,568	100.00

Industry refers to the branch of productive activity, trade or service in which the individual works or carries out his occupation. The Australian Standard Industrial Classification (ASIC), designed primarily as a system for classifying establishments (*e.g.* individual mines, factories, shops etc.) by industry, was used for the 1971 Census and divides the whole field of industry into twelve major industry groups, which in turn are divided into sixty subdivisions, 157 groups and 519 classes.

In the next table the number of employed males and females aged fifteen years and over at the 1971 Census are classified according to industry in conjunction with occupational status. The proportion of the employed population engaged in agriculture, forestry, fishing etc. declined from 10.7 per cent in 1966 to 8.6 per cent in 1971. The percentage recorded as employed in manufacturing industries fell from 28.0 in 1966 to 24.4 in 1971 reversing the trend which was evident between 1933 and 1966.

**Employed Population 15 Years and Over: Industry and Occupational Status,
South Australia
Census 30 June 1971**

Industry Group	Employed				
	Employer	Self-Employed	Employee	Helper	Total
	MALES				
Agriculture, forestry, fishing etc.	5,474	15,709	10,830	619	32,632
Mining	48	503	2,816	61	3,428
Manufacturing	1,217	1,030	90,798	17	93,062
Electricity, gas and water	3	2	8,242	—	8,247
Construction	2,644	3,592	27,209	13	33,458
Wholesale and retail trade	5,715	4,396	45,421	59	55,591
Transport and storage	714	1,755	17,732	8	20,209
Communication	4	12	6,826	—	6,842
Finance, business services etc.	1,208	854	13,854	23	15,939
Public administration, defence	—	—	13,479	—	13,479
Community services	1,100	253	22,683	54	24,090
Entertainment, recreation, etc.	1,105	872	6,459	32	8,468
Other and not stated	236	735	8,943	123	10,037
Total males employed	19,468	29,713	275,292	1,009	325,482
	FEMALES				
Agriculture, forestry, fishing etc.	1,386	3,747	2,057	1,083	8,273
Mining	7	33	295	5	340
Manufacturing	289	316	22,892	54	23,551
Electricity, gas and water	1	1	508	—	510
Construction	292	188	1,244	67	1,791
Wholesale and retail trade	2,412	2,432	33,447	364	38,655
Transport and storage	115	171	2,521	24	2,831
Communication	1	11	2,182	1	2,195
Finance, business services etc.	161	226	11,789	22	12,198
Public administration, defence	—	—	5,714	—	5,714
Community services	205	365	35,346	166	36,082
Entertainment, recreation, etc.	907	630	13,125	99	14,761
Other and not stated	56	182	4,592	355	5,185
Total females employed	5,832	8,302	135,712	2,240	152,086

Labour Force Survey

In addition to complete census counts, estimates of the civilian labour force are prepared each quarter from the results of surveys conducted at a sample of dwellings throughout Australia. These surveys began in 1960 and were initially confined to the six State capital cities. During 1964 the surveys were extended to include non-metropolitan urban and rural areas, thereby enabling derivation

of estimates of the total civilian labour force in Australia. Because of the nature of the sample used, national labour force estimates only are prepared, and information is not available for individual States.

Statistics obtained from the surveys include numbers employed and unemployed; labour force participation and unemployment rates; duration of unemployment; analyses of reasons for 'under employment'; as well as age, sex, occupation and industry characteristics.

Estimates of persons employed in agriculture and in other industries have been revised for the period from August 1968. The revised estimates are included in the following table which shows the employment status of the civilian population at August in each year from 1968 to 1972.

Civilian Population 15 Years of Age and Over: Employment Status, Australia

August	In Labour Force					Not in Labour Force	Civilian Population Aged 15 Years and Over
	Employed			Un-employed	Total		
	Agri-culture	Other Industries	Total				
MALES (per cent)							
1968.....	8.56	73.70	82.26	0.76	83.02	16.98	100.0
1969.....	8.19	74.07	82.26	0.73	82.99	17.01	100.0
1970.....	7.94	74.33	82.27	0.75	83.02	16.98	100.0
1971.....	7.40	74.00	81.40	0.87	82.27	17.73	100.0
1972.....	7.68	73.16	80.84	1.47	82.31	17.69	100.0
MARRIED WOMEN (per cent)							
1968.....	<i>n.a.</i>	<i>n.a.</i>	29.79	0.67	30.46	69.54	100.0
1969.....	1.80	29.44	31.24	0.67	31.91	68.09	100.0
1970.....	1.86	31.55	33.41	0.58	33.99	66.01	100.0
1971.....	1.80	32.81	34.61	0.71	35.32	64.68	100.0
1972.....	1.80	33.77	35.57	0.89	36.46	63.54	100.0
OTHER FEMALES (a) (per cent)							
1968.....	<i>n.a.</i>	<i>n.a.</i>	47.40	1.10	48.50	51.50	100.0
1969.....	0.88	45.72	46.60	1.01	47.61	52.39	100.0
1970.....	0.81	45.85	46.66	0.96	47.62	52.38	100.0
1971.....	0.76	43.70	44.46	0.92	45.38	54.62	100.0
1972.....	0.79	42.83	43.62	1.70	45.32	54.68	100.0
PERSONS (per cent)							
1968.....	4.90	54.01	58.91	0.79	59.70	40.30	100.0
1969.....	4.82	54.39	59.21	0.76	59.97	40.03	100.0
1970.....	4.69	55.25	59.94	0.73	60.67	39.33	100.0
1971.....	4.41	55.11	59.52	0.83	60.35	39.65	100.0
1972.....	4.55	54.83	59.38	1.31	60.69	39.31	100.0

(a) Includes never married, widowed and divorced.

n.a. not available

Of particular note in recent years has been the increasing participation of married women in the labour force. The following table shows the labour force participation rates of all women, with separate measures for married and for non-married women with each category further classified into age groups.

Employed Women^(a): Labour Force Participation Rates^(b), Age and Marital Status, Australia

August	Age Group (Years)								Total (a)
	15-19	20-24	25-34	35-44	45-54	55-59	60-64	65 and over	
MARRIED WOMEN (per cent)									
1968.....	35.6	40.0	31.1	36.9	34.0	23.5	12.1	2.8	30.5
1969.....	33.2	44.4	32.8	39.1	35.4	23.0	11.7	3.0	32.0
1970.....	38.4	44.6	36.2	42.1	37.6	23.0	11.6	2.9	34.0
1971.....	40.8	44.7	36.0	45.3	39.1	24.5	12.7	3.2	35.3
1972.....	46.1	47.3	36.5	45.5	41.4	26.8	14.4	3.4	36.5
OTHER FEMALES (c) (per cent)									
1968.....	61.6	90.2	83.8	71.8	60.9	43.8	22.5	4.2	49.5
1969.....	59.2	89.4	82.9	71.9	58.3	44.9	21.8	4.4	47.6
1970.....	59.1	90.0	81.8	70.3	57.9	44.1	23.3	3.8	47.5
1971.....	54.2	86.1	79.3	76.7	60.3	42.8	24.7	4.4	45.4
1972.....	55.7	84.7	82.5	77.4	60.7	41.2	21.5	3.6	45.3
ALL FEMALES (per cent)									
1968.....	59.8	60.4	36.2	40.1	38.1	29.1	15.9	3.7	36.7
1969.....	57.1	61.7	37.9	42.1	39.0	28.3	15.2	3.9	37.3
1970.....	57.4	61.8	41.3	44.6	40.7	28.2	15.6	3.5	38.6
1971.....	53.1	59.8	40.6	47.9	42.3	29.1	17.1	4.0	38.7
1972.....	54.8	60.6	41.1	48.3	44.3	30.3	16.8	3.5	39.4

(a) Civilians 15 years of age and over.

(b) The labour force in each group as a percentage of the civilian population aged 15 years and over in the same group.

(c) Includes never married, widowed and divorced.

Special Employment Studies

The sample of dwellings referred to in respect of the Labour Force Survey (pages 288-9) has provided the framework for a number of special studies related to employment. These special studies have included: some characteristics of the attachment of school leavers to the labour force, information concerning the labour force participation of persons responsible for the care of children, measures of the extent of multiple job-holding in the civilian labour force, some characteristics of the incidence and distribution of health services used or required in South Australia, and some indications of the time and means of travel to work. Brief summaries of these studies are given in the following pages and on pages 248-50. Since the estimates provided in these studies are based on sample surveys they are subject to sampling error, the magnitude of which is described in some detail in the bulletins for each topic published by the Commonwealth Statistician.

School Leavers

The definition of school leavers adopted for these surveys is 'persons aged fifteen to twenty-four who had attended full-time at a school, university or other educational institution at some time during the previous year and were not returning to full-time education in the year in which the survey was conducted.' The number of school leavers who entered the labour force expressed as a percentage of total leavers describes their labour force participation rates. This rate for South Australian males in February 1972 was 96.8 compared with the national rate of 95.3, while the equivalent rates for females were 91.8 in this

State and 90.5 for Australia. The following table indicates both numbers and participation rates in February of the years 1968 to 1972.

Labour Force, Attachment of School Leavers

February	South Australia			Australia		
	Total in Labour Force	Total Leavers	Labour Force Participation Rate	Total in Labour Force	Total Leavers	Labour Force Participation Rate
	'000		Per cent	'000		Per cent
	MALES					
1968....	8.7	9.1	95.4	84.8	88.5	95.8
1969....	9.7	10.3	94.0	89.7	95.0	94.4
1970....	10.7	10.9	98.2	90.8	95.1	95.5
1971....	9.9	10.5	94.8	96.4	103.3	93.3
1972....	10.2	10.5	96.8	96.4	101.2	95.3
	FEMALES					
1968....	5.7	6.7	85.3	72.1	80.8	89.2
1969....	8.0	9.1	88.1	83.7	93.4	89.6
1970....	8.4	9.1	92.1	81.2	91.7	88.5
1971....	9.7	10.3	94.9	92.1	100.5	91.6
1972....	9.4	10.2	91.8	83.2	92.0	90.5
	PERSONS					
1968....	14.4	15.8	91.1	156.9	169.4	92.6
1969....	17.7	19.4	91.2	173.4	188.3	92.1
1970....	19.0	20.0	95.4	171.9	186.8	92.0
1971....	19.7	20.7	94.9	188.4	203.8	92.4
1972....	19.6	20.8	94.3	179.6	193.1	93.0

Child Care

In May 1969 a survey, based on the quarterly population survey sample of households, was conducted throughout Australia in order to derive information about persons in the labour force who were responsible for the care of children under twelve years of age and the arrangements they made for the care of their children while they themselves were at work. In addition, the survey sought to establish the numbers of persons who would have entered the labour force if suitable child care facilities had been available. The enquiry was directed mainly to working mothers, but males with the sole responsibility for children were also included. This survey was discussed in detail on pages 276-8 of the *South Australian Year Book 1971* and further information may be obtained from the bulletin *Child Care* (reference 17.2) published by the Commonwealth Statistician.

Journey to Work

A sample survey was conducted in May 1970 in order to obtain information about the principal means of transport by which employed persons travelled to work. The results of the survey also include the times at which employed persons left home to travel to work and the amount of time spent on the journey to work.

The means of transport used refers to the principal means and, when two or more were required, the principal means was taken as that which covered the greatest distance. The category 'other' referred to in the next table includes

such methods as travel by taxi or as a pillion passenger on a motor cycle. The duration of journey to work was measured as the time taken by a person to travel from the door of his residence to the entrance to his place of work.

The survey indicated that in May 1970 of 382,500 South Australians who travelled to work, 268,000 or just over 70 per cent travelled by car either as driver or as passenger. The comparable rate for the whole of Australia was almost 63 per cent. Conversely less than 17 per cent of South Australians travelled to work by public transport (train, bus and tram) compared with almost 24 per cent for Australia. The following table reveals comparisons of the use of several methods of transport in capital city statistical divisions and in other areas for each State and for the whole of Australia.

**Persons Who Travelled to Work, by Method of Travel, Capital Cities
and Other Areas, May 1970
(Per cent)**

Method of Travel to Work	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (a)
CAPITAL CITIES (b)							
Public transport	36.7	30.9	28.5	19.6	21.0	19.7	30.6
Train	19.8	16.5	11.3	2.9	4.3	(c)	14.5
Bus	15.7	6.9	17.0	16.0	16.5	18.3	13.1
Tram or ferry	1.2	7.5	(c)	(c)	(c)	..	3.0
Car	53.4	58.0	63.6	69.5	69.8	64.2	59.1
As driver	43.4	46.2	49.2	53.3	56.3	51.6	47.1
As passenger	9.9	11.8	14.4	16.2	13.5	12.6	12.0
Bicycle	0.4	1.3	(c)	4.4	(c)	(c)	1.2
Walked	7.9	9.1	5.7	5.0	6.6	14.4	7.8
Other	1.6	0.7	1.6	1.6	(c)	(c)	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
OTHER AREAS							
Public transport	11.7	6.7	4.9	7.1	(c)	6.4	8.4
Bus	8.7	5.1	4.6	5.2	(c)	6.2	6.7
Car	69.3	71.8	71.6	72.9	70.1	72.5	71.0
As driver	53.0	57.5	56.7	59.5	56.6	58.5	55.9
As passenger	16.3	14.3	15.0	13.4	13.5	14.0	15.1
Bicycle	2.1	4.1	4.6	(c)	(c)	(c)	2.8
Walked	13.8	16.2	15.4	14.8	18.5	16.5	15.0
Other	3.1	1.2	3.4	3.0	(c)	(c)	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Northern Territory and Australian Capital Territory included in 'other areas.'

(b) Statistical divisions.

(c) Insufficient data collected to provide reliable estimates.

The next table shows that in the Adelaide Statistical Division, almost 72 per cent of journeys to work (one direction only) were completed in less than half an hour, whereas for Australia as a whole only 66 per cent of journeys to work were completed in that time. Journeys to work by persons resident outside the capital city statistical divisions were generally accomplished in a much shorter time, with about 60 per cent of South Australians in 'other areas' doing so in less than fifteen minutes and about 84 per cent in less than half an hour.

All Persons Who Travelled to Work, by Duration of Journey
Capital Cities and Other Areas, May 1970
 (Per cent)

Duration of Journey to Work (minutes) (a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (b)
CAPITAL CITIES (c)							
1-14	22.0	22.3	23.6	28.6	27.9	38.4	23.7
15-29	27.2	31.2	33.7	43.1	41.5	45.3	32.3
30-44	23.2	24.6	25.1	20.7	22.1	12.3	23.3
45-59	11.7	10.9	9.8	4.9	4.8	(d)	9.8
60-74	9.8	7.4	5.2	2.0	2.4	(d)	7.0
75-89	2.8	1.5	(d)	(d)	(d)	(d)	1.6
90 and over	2.7	1.4	1.5	(d)	(d)	(d)	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
OTHER AREAS							
1-14	50.6	62.7	65.6	60.3	68.1	56.9	57.5
15-29	26.8	25.6	24.1	24.2	20.1	29.0	26.5
30-44	13.5	7.6	7.2	9.3	8.2	8.5	10.0
45 and over	8.5	3.5	3.0	6.0	(d)	(d)	5.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) One way only. (b) Northern Territory and Australian Capital Territory included in 'other areas'.
 (c) Statistical divisions. (d) Insufficient data collected to provide reliable estimates.

Further details resulting from the survey are included in the *Journey to Work and Journey to School Bulletin* (reference 17.4) published by the Commonwealth Statistician.

Multiple Jobholding

The labour force survey was extended in May 1971 to permit derivation of estimates of the extent of multiple jobholding throughout Australia during that month. Similar surveys were conducted in November 1965, and August 1966 and 1967. The detailed results of each of these surveys have been published in Multiple Jobholding bulletins (reference 6.10) published by the Commonwealth Statistician.

Persons were classified as multiple jobholders if, during the survey week they:

- (a) worked in a second job or held a second job from which they were temporarily absent; and
- (b) were employed in at least one of their jobs as a wage or salary earner, provided they were not employed as an unpaid family helper in their second job. Persons who by the very nature of their employment worked for more than one employer, e.g. domestics, odd-job men, baby-sitters, etc., were not counted as multiple jobholders unless they also held another job of a different kind; nor were those who worked for more than one employer solely by reason of changing jobs during the survey week.

The survey indicated that the extent of multiple jobholding has increased throughout Australia in the period from 1966 to 1971. For males the increase was from 3.7 per cent of the male labour force in 1966, to 4.4 per cent in 1971, while for females the corresponding rise was from 1.4 per cent to 2.1 per cent. For South Australia the proportion of the labour force who held more than one job in May 1971 was 5.8 per cent for males while there was insufficient data collected to provide a reliable estimate for females in this State.

The incidence of multiple jobholding in 1971 was highest in the 25-34 age groups at 5.2 per cent, and was greater overall for married men (4.9 per cent) than for single men (2.8 per cent). Of those persons who held more than one job 23 per cent had their main activity in manufacturing industries, while 30 per cent maintained a second job in the amusements, hotels and personal services group of industries. In their main jobs 31 per cent of multiple jobholders were described as craftsmen, production process workers and similar occupations, and almost 25 per cent were described as service, sport or recreation workers in their second jobs.

WAGE AND SALARY EARNERS IN EMPLOYMENT

Details of the number of wage and salary earners in civilian employment other than at census dates are available from periodic estimates. These estimates, which exclude employees in agriculture and private domestic service, are based on information obtained at population censuses, known as bench-marks, with adjustments to these bench-marks being made from certain current information.

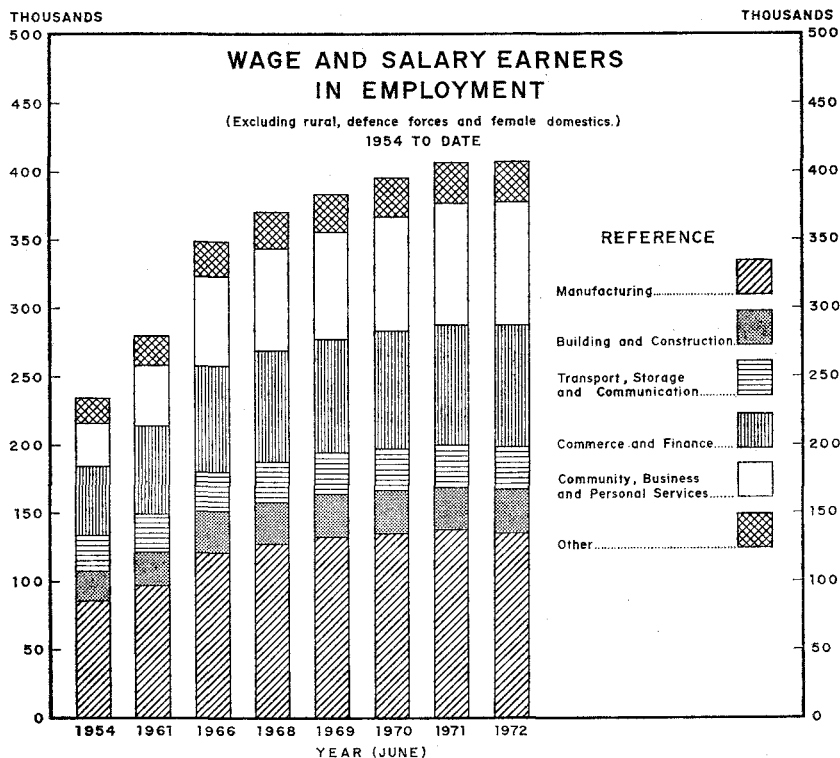
At the 1971 population census trainee teachers were, for the first time, classified as not in the labour force. From July 1971 they have been excluded from the estimates of employed wage and salary earners in civilian employment. The number of males and females excluded by this change in classification was 800 and 2,200 respectively. Estimated employment for June in the years 1968 to 1972 classified by industry group, is given in the following table.

Wage and Salary Earners in Employment, South Australia^(a)

June	Manufacturing	Building and Construction	Transport, Storage and Communication	Commerce and Finance	Community, Business and Personal Services	Other	Total Employment
MALES ('000)							
1968.....	101.9	29.3	25.5	46.6	27.7	22.7	254.0
1969.....	106.1	30.2	25.9	47.8	28.3	23.2	261.6
1970.....	107.5	30.2	26.1	49.3	29.6	23.7	266.6
1971.....	110.1	30.0	26.5	49.5	31.4	24.2	271.7
1972 (b).....	107.8	30.7	26.5	49.4	32.3	24.4	271.1
FEMALES ('000)							
1968.....	25.1	1.1	4.3	34.7	46.8	4.4	116.2
1969.....	26.2	1.2	4.3	35.6	49.4	4.7	121.4
1970.....	27.7	1.2	4.6	37.1	54.4	4.9	129.9
1971.....	28.2	1.3	4.7	38.8	58.3	5.2	136.3
1972 (b).....	28.6	1.3	4.7	39.3	58.4	5.4	137.6
PERSONS ('000)							
1968.....	127.0	30.9	29.6	81.3	74.5	27.1	370.2
1969.....	132.3	31.4	30.2	83.4	77.7	27.9	383.0
1970.....	135.2	31.4	30.7	86.5	84.0	28.6	396.5
1971.....	138.3	31.3	31.2	88.3	89.7	29.4	408.0
1972 (b).....	136.4	32.1	31.2	88.7	90.7	29.8	408.7

(a) Excludes employees in agriculture, private domestics and defence forces. (b) From July 1971, excludes trainee teachers, some of whom were classified as wage and salary earners for earlier periods.

An industry distribution of wage and salary earners derived from these estimates, and beginning with the census year 1954, is presented in the following bar chart. 'Manufacturing' includes employees of manufacturing enterprises who are not directly associated with the productive process, such as sales and distribution personnel. The category 'community, business and personal services' covers employees in education, health, amusement, hotels and restaurants, and professional and personal services but excludes private domestics.



Government and semi-government departments or authorities employ 27 per cent of total civilian wage and salary earners. The following table shows the distribution of wage and salary earners at June 1971 and June 1972 by class of employer.

Wage and Salary Earners in Employment: Class of Employer
South Australia^(a)

Class of Employer	June 1971			June 1972		
	Males	Females	Persons	Males	Females	Persons
Private.....	194.4	104.6	299.1	191.6	106.4	298.0
Government (b):						
Commonwealth ..	22.7	6.1	28.8	23.0	6.2	29.2
State	50.3	24.8	75.1	50.9	24.1	75.1
Local	4.3	0.8	5.1	5.6	0.9	6.5
Total government	77.3	31.7	108.9	79.5	31.2	110.7
Total employment	271.7	136.3	408.0	271.1	137.6	408.7

(a) Excludes employees in agriculture, private domestics and defence forces.

(b) Includes employees, within Australia, of government bodies (Commonwealth, State, local and semi-government) on services such as railways, tramways, banks, post office, air transport, education (including universities), broadcasting, television, police, public works, government factories and munitions establishments, government hospitals and institutions, migrant hostels, etc., as well as administrative employees.

Further information on employment in specific sectors such as factories, agriculture, the building industry etc. is found in the relevant sections.

UNEMPLOYMENT

For the 1971 Census of Population and Housing, the employed population comprises persons fifteen years of age and over who, in the week before the Census, either worked for payment or profit or had a job from which they were temporarily absent. Persons helping but not receiving wages or salary who usually worked less than fifteen hours a week are excluded from the employed and included in the unemployed if they looked for work.

Unemployed persons are those who are not employed and who were either laid off without pay for the whole week or were actively looking for work.

This approach conforms closely to the recommendations of the Eighth International Conference of Labour Statisticians held in Geneva in 1954 and to the approach used at the 1966 Census.

The estimated number of persons unemployed in South Australia at the 1971 Census was 4,548 males and 3,555 females.

Monthly figures compiled by the Commonwealth Employment Service of the Department of Labour provide indicators of movement in the level of unemployment. These figures are a count of the number of persons, registered with the Employment Service for employment on the Friday nearest the end of the month, who claimed at the time of registering that they were not employed, and who were still recorded as unplaced. Included are persons who have been referred to employers and those who may have obtained employment without notifying the Department. Also available is the number of vacancies, registered by employers, which were recorded as unfilled at the end of the month.

The next table gives the seasonally adjusted number of persons and vacancies registered at the end of each month for the years 1968 to 1972 *i.e.* it does not show the actual numbers unemployed, but a series from which seasonal variations have been removed so that long-term trends can be seen.

Registration with Commonwealth Employment Service, South Australia^(a)
(Seasonally Adjusted Series)

Month	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Year:	PERSONS REGISTERED FOR EMPLOYMENT (b) ('000)											
1968.....	8.1	7.8	8.4	8.3	8.3	8.4	8.2	7.8	7.6	7.3	7.9	7.6
1969.....	7.8	7.8	7.4	7.3	6.8	6.3	6.2	6.0	5.8	6.4	6.0	6.5
1970.....	6.5	6.2	6.2	5.7	6.4	6.2	6.5	6.3	7.0	6.6	6.7	7.0
1971.....	7.3	7.4	7.7	7.7	7.8	8.0	8.0	8.5	9.2	9.6	9.3	9.8
1972.....	9.7	11.1	11.2	11.1	10.5	12.4	13.3	15.8	14.9	14.6	13.6	13.4
	VACANCIES REGISTERED ('000)											
1968.....	2.5	1.9	2.2	2.2	2.2	2.2	2.3	2.1	2.1	2.2	2.2	2.3
1969.....	2.4	2.4	2.5	2.8	3.0	3.6	3.4	3.4	3.2	2.9	3.1	3.2
1970.....	3.3	3.7	4.1	4.0	3.5	3.6	3.3	3.1	3.2	2.8	3.1	2.6
1971.....	3.4	2.9	3.2	3.0	3.6	3.4	3.8	3.7	3.3	3.0	2.3	2.3
1972.....	2.7	2.8	2.9	2.9	2.9	2.7	2.7	2.3	2.6	2.8	2.8	2.8
	EXCESS OF PERSONS REGISTERED OVER VACANCIES ('000)											
1968.....	5.6	5.9	6.1	6.2	6.1	6.2	5.9	5.7	5.4	5.1	5.7	5.3
1969.....	5.4	5.5	4.9	4.5	3.7	2.7	2.8	2.5	2.6	3.4	3.0	3.3
1970.....	3.3	2.5	2.1	1.7	2.9	2.6	3.2	3.2	3.8	3.8	3.6	4.4
1971.....	3.9	4.5	4.5	4.7	4.3	4.5	4.3	4.8	5.9	6.6	6.9	7.5
1972.....	7.0	8.3	8.3	8.2	7.6	9.7	10.6	13.5	12.3	11.8	10.8	10.6

(a) Includes Northern Territory.

(b) Persons who claimed they were unemployed.

One of the primary functions of the Labour Force Survey (see pages 288-90) is to provide regular and detailed information on unemployment in Australia. Separate details for South Australia are not available. The following table shows the number of unemployed persons and their duration of unemployment at the time of surveys conducted in August of each year from 1968 to 1972.

Unemployed Persons, Australia^(a)

August	Unemployed		Proportion Unemployed for:				
	Number	Proportion of Labour Force	Under 2 Weeks	2 and Under 4 Weeks	4 and Under 13 Weeks	13 Weeks and Over	Total
	'000		Per cent				
			MALES				
1968.....	32.1	0.9	20.6	37.4	26.8	15.3	100.0
1969.....	31.8	0.9	23.9	30.4	31.2	14.5	100.0
1970.....	33.5	0.9	25.7	31.3	31.1	11.9	100.0
1971.....	39.3	1.1	25.0	35.6	27.2	12.2	100.0
1972.....	67.4	1.8	14.5	27.5	38.9	19.1	100.0
			FEMALES				
1968.....	35.0	2.2	19.7	24.8	35.0	20.5	100.0
1969.....	34.3	2.1	23.6	29.0	34.0	13.4	100.0
1970.....	31.5	1.8	26.3	25.4	34.0	14.3	100.0
1971.....	35.8	2.0	26.4	27.4	32.5	13.7	100.0
1972.....	53.9	2.9	18.5	22.0	38.2	21.3	100.0
			PERSONS				
1968.....	67.1	1.3	20.1	30.7	31.1	18.0	100.0
1969.....	66.1	1.3	23.6	29.7	32.9	13.9	100.0
1970.....	65.0	1.2	26.0	28.3	32.6	13.0	100.0
1971.....	75.1	1.4	25.6	31.7	29.7	13.0	100.0
1972.....	121.3	2.2	16.3	25.0	38.6	20.1	100.0

(a) Civilians 15 years of age and over.

EMPLOYMENT SERVICES

The Commonwealth Employment Service, administered by the Department of Labour, commenced operations in South Australia in May 1946. The main functions of the Employment Service are to assist people seeking employment to obtain positions best suited to their training, experience, abilities and qualifications; and to assist employers seeking labour to obtain employees best suited to the demands of the employers' particular class of work.

Specialised facilities are provided for young people, persons with physical and mental handicaps, ex-members of the defence forces, Aborigines, migrants, rural workers, and persons with professional and technical qualifications. Vocational guidance, provided without charge by psychologists, is available to any person, but is provided particularly for young people and handicapped persons. The Department of Labour is also responsible for the administration of a variety of vocational training schemes. These are designed to assist persons in special circumstances, for example, persons made redundant or displaced by technological change, and women who have been precluded from employment through domestic responsibility.

The Commonwealth Employment Service is responsible for placing in employment migrant workers sponsored by the Commonwealth under the Commonwealth Nomination and similar schemes. This includes arranging for them to move to their initial employment and for their admission, if necessary, to

Commonwealth migrant hostel accommodation. Experts for overseas service under technical aid programmes are recruited by the Employment Service.

Before unemployment benefit can be paid, persons seeking such benefit must be registered with the Employment Service which is responsible for certifying that suitable employment is not available.

In association with placement activities, regular surveys of the labour market are carried out. These include a monthly survey of employment in larger private factories covering practically all private factories with 100 or more employees and a large section of those with between 50 and 100 employees. The results of this survey give an earlier indication of current monthly trends in private factory employment than is available from any other source. A survey of the level of overtime and/or short-time being worked in a similar but slightly smaller sample of factories is conducted concurrently with this survey.

The Department of Labour operates nine Commonwealth Employment Service offices, including a Professional Employment Office, in the metropolitan area and has offices in seven country areas backed up by agents in smaller centres. The South Australian Regional Office of the Department of Labour is also responsible for district offices at Alice Springs and Darwin in the Northern Territory. The Professional Employment Office in Adelaide specialises in placement of the more highly qualified and professional applicants.

There are also a number of private employment agencies, all of which are required to register with the State Department of Labour and Industry. At 31 December 1972 there were thirty such agencies registered.

7.2 ARBITRATION AND INDUSTRIAL ORGANISATIONS

INDUSTRIAL ARBITRATION

In Australia a unique system of conciliation and arbitration by Government-established tribunals has been developed, with the Commonwealth Parliament and the State Parliaments each passing its own industrial legislation.

Under Section 51 of the Commonwealth Constitution the Commonwealth Parliament may make laws in relation to 'conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State'. In addition the Commonwealth may legislate under certain industrial powers for the stevedoring and maritime industries, the Commonwealth Public Service, and certain Commonwealth projects. Commonwealth arbitration is binding only on the parties to a dispute, and decisions need not be of general application to an industry.

Employees not specifically covered by Commonwealth awards are subject to State industrial jurisdiction but where an award or determination of a State industrial tribunal is in conflict with an award of a Commonwealth tribunal, the latter prevails. Commonwealth jurisdiction is now the predominant influence in employer-employee relationships.

Commonwealth Industrial Tribunals

Before 1956 a Court of Conciliation and Arbitration was responsible for the prevention and settlement of industrial disputes extending beyond the limits of any one State. In that year substantial amendments were made to the Conciliation and Arbitration Act separating the judicial and arbitral functions of the Court by the establishment of the Commonwealth Industrial Court and the Commonwealth Conciliation and Arbitration Commission.

The Industrial Court, which is comprised of a Chief Judge and five other Judges, interprets and enforces awards, passes judgment on questions of law and determines questions arising in relation to organisations registered under the Act. Decisions of the Industrial Court are final, although in certain matters an appeal lies to the High Court, but only by leave of the High Court.

The Commonwealth Conciliation and Arbitration Commission comprises a President, eight Deputy Presidents, ten Arbitration Commissions and ten Conciliation Commissioners.

In addition to changing the composition of the Commission to that outlined above, several other important amendments were made to the Conciliation and Arbitration Act in 1972. The matters dealt with included:

- (1) the separation of the conciliation function from the arbitration function;
- (2) the establishment of panels (known as 'task forces') to be headed by a presidential member and specialising in the affairs of a single industry or group of industries;
- (3) the broadening of the basis for appointment of presidential members to include persons other than members of the legal profession;
- (4) the reservation for determination by a Full Bench of questions of standard hours of work, national wage cases, minimum wages, annual leave, long service leave and equal pay;
- (5) the widening of the provisions relating to appeals;
- (6) the preservation of the community's interest and the consideration by Full Benches of the likely national economic consequences of any award or order they might make in settlement of a dispute;
- (7) the broadening of the jurisdiction of the Commission in disputes which occur in the Australian Capital Territory and Northern Territory;
- (8) the protection of the rights of individuals in respect to unionism and provision for secret ballots on the direction of a presidential member;
- (9) the allowance for awards to be made relating to unlimited accumulation of sick leave;
- (10) the strengthening of sanction procedures;
- (11) the retirement of presidential members at the age of 65 instead of age 70.

The functions of presidential members and arbitration commissioners are restricted to arbitration while conciliation commissioners have the authority only to assist parties to resolve their differences. Should conciliation be unsuccessful the matter is referred to arbitration.

State Industrial Tribunals

The South Australian legislation governing State intervention in industrial relations is the Industrial Conciliation and Arbitration Act, 1972, which came into operation on 1 January 1973. This Act, which made various changes in the existing industrial law provides for:

- (1) An Industrial Court which deals with matters of law and hears claims for recovery of money payable under awards or agreements;

- (2) An Industrial Commission which makes awards covering workers not under the jurisdiction of Conciliation Committees; and
- (3) Conciliation Committees which make or vary awards for an industry or area of the State in relation to which each Committee is appointed.

The President and any Deputy President of the Industrial Court are Judges of that Court. The Court itself consists of one or more Judges or the Industrial Magistrate as the President directs. The President and each Deputy President of the Industrial Court are also President and Deputy Presidents respectively of the Industrial Commission. Arbitral functions of the Commission may be exercised by a presidential member or a Commissioner as directed by the President. When required a Full Commission is constituted by either two presidential members and a Commissioner or a presidential member and two Commissioners as directed by the President.

Although the President and Deputy President must be persons eligible for appointment as Judges of the Supreme Court, the four Commissioners appointed by the Governor do not require law qualifications. The Act provides that one-half of the number of Commissioners must be experienced in industrial affairs through association with employers' interests, and the other half must have similar experience by having been associated with trade union affairs.

Conciliation Committees with one of the Commissioners as chairman are appointed for a three year term by the Minister of Labour and Industry on the recommendation of the President and have the same jurisdiction in industrial matters as the Commission. If the process of conciliation before a Committee fails, then the Chairman sits as a Commissioner to determine the unresolved matters. All awards, both those made by the Commission and those made by Committees, operate as common rules in the industries concerned.

Provision is made for the Commission, when constituted by a single member, or for the Chairman of a Conciliation Committee, to consult with the President as to whether a matter should be dealt with by the Full Commission and he is required to consult with the President on the application of any party to an industrial matter before him.

There is a right of appeal against awards and decisions of the Commission, when constituted by a single member, or of a Conciliation Committee. The appeal is heard by the Full Commission which is constituted as mentioned above.

Power is given to the Industrial Court to hear claims for the recovery of sums due under awards or registered agreements both Commonwealth and State, and claims for long service leave, but there is no power to award costs against either party. Where the claim has been heard by the Industrial Magistrate an appeal may be heard by a Judge of the Industrial Court.

Proceedings against persons or organisations breaching an award are heard in a Court of Summary Jurisdiction, which is normally constituted by the Industrial Magistrate, although where a question of law is involved the matter may be referred to the Industrial Court.

Proceedings before the Industrial Commission may be commenced by an application submitted by:

- (i) the Minister of Labour and Industry;
- (ii) an employer, or group or registered association of employers in an industry employing in the aggregate not less than twenty employees or 75 per cent of the employees in the industry, whichever is the lesser; or

- (iii) a group or registered association consisting of not less than twenty employees or 75 per cent of the employees within an industry, whichever is the lesser.

At 31 December 1972 there were two associations of employers and fifty-three associations of employees registered with the Industrial Registrar. Membership of these employee associations totalled 140,408.

The Industrial Conciliation and Arbitration Act, 1972 also provides that every full-time employee shall be eligible to receive cumulative sick leave totalling not less than ten days annually on full pay, and shall be entitled to the general standard of annual leave as determined by the Full Commission. It also enables the Industrial Commission to prescribe in awards preference for employment to members of registered associations where all factors relevant to the employment of such members and all other persons affected are otherwise equal. The Act also gives the Court jurisdiction to hear any question as to whether the dismissal of an employee is harsh, unjust or unreasonable, and with power to direct the employer to reinstate the dismissed employee to his former position on terms not less favourable than those held previously.

EMPLOYEE ORGANISATIONS

At 31 December 1971 there were 139 separate unions operating in South Australia; although a number of unions exist only in this State, branches of interstate or federated unions account for the majority of total membership. Some of these are bound under a system of unification with centralised control while others are practically independent and self-governing, the federal bond existing only for limited specified purposes.

The central labour organisation for the State is the United Trades and Labor Council of South Australia, and combined union councils exist for Mount Gambier, Port Augusta, Port Lincoln, Port Pirie, the Upper Murray, Leigh Creek and Whyalla. These central organisations, together with individual unions are affiliated with the Australian Council of Trade Unions (ACTU). All major unions are affiliated with the Council, which was founded at an All-Australian Trade Union Congress in 1927. The Trades and Labor Council is the State branch of the ACTU and has the right to appoint one representative to act on the executive of the Council.

The following table gives particulars of the number of separate unions and union membership for the years 1967 to 1971. The table includes estimated percentages of trade union members to total wage and salary earners in employment. The estimates of total wage and salary earners have been calculated by adding estimates of rural and private domestic employees based on census results to estimates of wage and salary earners which normally exclude rural and private domestic employees. For this reason and because trade union membership includes some persons not in employment, the percentages shown in the table must be regarded as approximations.

In comparing the percentages shown in this table with those shown in previous Year Books, allowances should be made for the fact that the present estimates are based on a new series of employment estimates from June 1966. The change is most significant for female employees as the new employment estimates include a considerable number of part-time employees who had previously been excluded.

**Trade Unions, South Australia
At 31 December**

Year	Separate Unions	Members			Proportion of Members to Total Wage and Salary Earners		
		Males	Females	Persons	Males	Females	Persons
	No.		'000		Per cent		
1967.....	133	151.9	30.3	182.2	58	26	48
1968.....	133	153.1	32.5	185.6	57	26	47
1969.....	135	158.6	35.6	194.2	57	27	48
1970.....	137	163.2	39.4	202.7	57	28	48
1971.....	139	172.1	43.8	215.9	60	31	51

In the next table unions and membership have been classified under broad industrial groupings. Where the members of a union are employed in a number of industries they have been classified to the predominant industry. The classification 'other' includes rural industry, mining and quarrying, banking, insurance and clerical, wholesale and retail trade, amusement, hotels and community and business services.

**Trade Unions: Industry Groups, South Australia
At 31 December**

Year	Manu- facturing	Building and Con- struction	Transport	Public Authority (n.e.i.)	Other	Total
	NUMBER OF SEPARATE UNIONS					
1967....	40	6	20	36	31	133
1968....	39	6	20	35	33	133
1969....	39	6	19	36	35	135
1970....	39	7	20	37	34	137
1971....	40	8	20	37	34	139
	NUMBER OF MEMBERS ('000)					
1967....	64.4	11.0	19.5	43.9	43.4	182.2
1968....	65.4	10.1	19.4	45.4	45.3	185.6
1969....	68.5	9.9	20.5	48.4	46.9	194.2
1970....	72.6	10.7	20.5	50.6	48.3	202.7
1971....	76.2	12.2	20.9	53.5	53.0	215.9

A historical summary of the growth of the trade union movement in South Australia was included on pages 280-1 of the *South Australian Year Book* 1969.

EMPLOYER ORGANISATIONS

In industrial matters there are two dominant employer organisations in the State. These are the South Australian Employers' Federation Inc., which was founded in 1889 and the Chamber of Commerce and Industry Inc., which resulted from the amalgamation in 1972 of the South Australian Chamber of Manufactures

Inc. (established in 1869) and the Adelaide Chamber of Commerce Inc. (established in 1839). The Federation and the Chamber provide industrial services for the majority of South Australian employers and employer groups.

The Employer's Federation is an incorporated body being largely a federation of employer associations, although provision is made for individual membership. In 1972 there were thirty-nine affiliated associations encompassing some 10,500 employers, and approximately 1,000 individual members. The Federation is maintained by fees paid by members, together with charges made for industrial actions, and from secretarial charges from member associations for which the Federation acts as secretariat. A council, which contains a representative from each of the member associations, is elected annually, and an executive is elected by the council.

Services provided by the Federation include the negotiating and drafting of industrial agreements, and the preparation and presentation of cases before Commonwealth and State industrial tribunals. Advice is provided on existing awards and determinations, and on various aspects of industrial legislation. A comprehensive industrial service letter is forwarded to all members and affiliated associations monthly while an apprenticeship newsletter is published twice each month.

The Chambers were formed originally to promote the trade, commerce, shipping and manufactures of South Australia, the local, interstate and overseas trade of South Australia, and to promote the products of South Australia. In 1940-41 the Chamber of Manufactures established an industrial department and has since accepted increasing responsibility for representing employer interests in the fixing of wages and the determination of employment conditions, both in State and Commonwealth jurisdictions. The combined Chamber has over 3,800 members organised, where appropriate, into more than seventy trade sections. Administration is by a Council of 200 members representative of industry groups and trade sections, which in turn elect an executive of ten members. In addition to industrial matters, the Chamber secretariat draws attention to proposals before State and Commonwealth Parliament, proposals of local government authorities, matters before the Tariff Board, and regulations of government departments and instrumentalities which could or do affect member companies.

INDUSTRIAL DISPUTES

Details of the number and extent of industrial disputes occurring in South Australia are shown in the next table. Effects on other establishments because of lack of materials, disruption of transport services, power cuts, etc. are not included in these statistics. Particulars of all disputes in progress during the year are included in the annual figures. Consequently, details of the number of disputes and of workers involved in the disputes which commenced in any year, and were still in progress during the following year, are included in the figures for both years. Working days and wages lost are included in the appropriate year. Workers involved in more than one dispute during the year are counted once for each dispute. Because of difficulties in identifying all participants in every dispute the statistics given below should be regarded as giving only a broad measure of the extent of work stoppages.

Industrial Disputes, South Australia^(a)

Period	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
Annual Averages:				\$'000
1951-55	30	17,800	50,500	310.0
1956-60	24	12,800	22,400	157.4
1961-65	39	18,500	26,000	234.6
1966-70	82	45,100	62,600	717.6
Year:				
1967	55	17,400	18,700	199.0
1968	83	39,400	51,100	514.6
1969	72	102,800	129,000	1,551.4
1970	156	57,000	93,100	1,123.1
1971	135	64,100	111,200	1,484.9

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes persons thrown out of work at the establishment where the stoppages occurred but not themselves parties to the dispute.

In the following table industrial disputes occurring during 1970 and 1971 are classified by industry groups. A dispute involving workers in more than one industry group is counted once only and is included in the industry group which has the largest number of workers involved. Other details are allocated to their respective industry groups.

Industrial Disputes: Industry Groups, South Australia^(a)

Industry Group	1970				1971			
	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
		'000	'000	\$'000		'000	'000	\$'000
Engineering, metals, vehicles, etc.	56	26.5	45.4	545.0	37	30.2	54.3	741.3
Food, drink and tobacco	2	3.4	2.6	29.5	10	5.1	12.8	176.7
Other manufacturing	19	5.4	18.7	232.2	17	5.5	6.3	80.4
Building and construction	15	6.8	7.1	86.7	8	2.9	3.5	48.2
Railway and tramway services.	2	1.6	1.5	14.2	5	6.8	10.8	132.0
Road and air transport	6	0.6	0.3	3.5	3	4.3	15.4	201.5
Stevedoring	47	8.8	11.1	136.6	35	3.7	3.1	40.2
Other industries ...	9	3.9	6.4	75.4	20	5.6	5.0	64.6
Total	156	57.0	93.1	1,123.1	135	64.1	111.2	1,484.9

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes workers indirectly involved.

7.3 WAGES AND HOURS

WAGES

Before the National Wage Cases of 1967, wages as determined by Commonwealth and State industrial authorities consisted of two distinct elements; a basic or living wage to which was added margins and loadings reflecting various features of employee activity. A more detailed description of these elements was included on pages 253 and 257-8 of the *South Australian Year Book 1967*.

The total wage concept was accepted by the decision of the Conciliation and Arbitration Commission in June 1967. The application of this concept, referred

to below, has limited the number of national wage cases in any year to one and provided the Commission with a flexible basis for decisions.

Commonwealth Wages Fixation

The *Conciliation and Arbitration Act 1904-1972* gives the Commonwealth Conciliation and Arbitration Commission power to make an award or to certify an agreement 'fixing the minimum wage for adult males (that is to say, that wage, which is just and reasonable for an adult male, without regard to any circumstance pertaining to the work upon which, or the industry in which, he is employed) or the principles upon which it is computed'. The Commission holds wage inquiries from time to time with its findings applicable to industrial awards within its jurisdiction.

A detailed account of the history of Commonwealth wage fixation before the introduction of the total wage concept appears in *Commonwealth Arbitration Reports* and a summary was included on pages 257-60 of the *South Australian Year Book 1968*.

On 5 June 1967 the Full Bench of the Commonwealth Arbitration Commission decided to dispense with the separation of wages into basic rates, margins for skill and prosperity loadings and to accept the total wage concept instead. As well as the total wage policy, the Commission had thus indicated a discontinuance of separate wage variations for males and females. Union claims for restoration of the basic wage and margins for skill system of wage fixing were rejected by the Commission in the 1968, 1969 and 1971 National Wage Cases.

In November 1971 the Australian Council of Trade Unions and other employee organisations requested that the Commonwealth Conciliation and Arbitration Commission split the hearing of the minimum and total wage claims. The Commonwealth Government and the employers' representatives objected to this application for separate hearings and the Commission ruled against the employees' request. Because the employees' cases for both claims were not fully prepared, it was agreed to defer the hearing of the 1971 National Wage Case.

When the hearing was resumed in February 1972, four separate claims were made regarding National Wage. For the purpose of taking evidence and hearing argument, all matters were joined. Details of the specific claims made can be ascertained from the National Wage Case 1971-72 judgment published by the Commission. On 5 May 1972, the Commission ordered that the minimum total wage be increased by \$4.70 a week and all other rates by \$2.00 a week. Proportionate increases were also given to females and juniors as prescribed in the various awards. The increases came into force as from the beginning of the first pay period to commence on or after 19 May 1972 and were to remain in force until 19 February 1973. In its judgment, the Commission again rejected quarterly adjustments of the minimum wage in line with movements in the Consumer Price Index.

On 28 August 1972, the Australian Council of Trade Unions lodged an application for an increase of \$12.10 a week in the national wage. On 15 December the Full Bench handed down a decision stating that it could not justify granting two national wage increases during 1972 and adjourned the hearing until 13 March 1973.

State Wage Fixation

All awards of both the State Industrial Commission and Conciliation Committees created under the Industrial Conciliation and Arbitration Act, 1972, include a 'living wage', which in terms of the Act may be determined and declared for both adult male and adult female employees. In making such determinations

the Full Commission may, as it deems fit, take into consideration any decision of the Commonwealth Conciliation and Arbitration Commission which relates to awards of that tribunal and likely to affect employees subject to awards in South Australia.

The Act also allows living wages for both males and females to be declared to avoid unjustifiable differences between comparable rates of wages fixed under Commonwealth and State Laws.

The earlier definition of the 'living wage' expressed in the Industrial Code as 'a sum sufficient for the normal and reasonable needs of the average employee' was not repeated in the Industrial Conciliation and Arbitration Act, 1972.

Living wage and minimum wage rates applicable since 1967 are recorded in the following table.

Living Wage and Minimum Wage, South Australia

Month First Operative	State Awards				Commonwealth Awards
	Living Wage			Minimum Wage	Minimum Wage
	State, except Whyalla and Iron Knob		Whyalla and Iron Knob			Adult Males (a)	Adult Males
	Males	Females	Males		
Dollars					
July 1967	33.30	25.20	33.80	37.05	37.05
Oct. 1968	34.65	26.55	35.15	38.40	38.40
Dec. 1969	34.65	26.55	35.15	41.90	41.90
Jan. 1971	37.85	29.00	38.35	45.90	45.90
May 1972	39.85	31.00	40.35	50.60	50.60

(a) Before December 1969 not all State awards contained a minimum wage provision.

Equal Pay

In recent years there have been significant developments in the attitude of government and arbitration authorities towards the awarding of equal pay for male and female employees.

In 1965 the South Australian Government decided to introduce progressively, over five years from July 1966, equal pay for women teachers employed by the South Australian Education Department. In 1966 this principle was extended to the State Public Service.

In June 1969 the Commonwealth Conciliation and Arbitration Commission, in what was accepted as a test case, granted equal pay to some women in the meat processing industry, set a timetable for implementation of equality of remuneration by 1 January 1972, and set out principles to be followed by individual commissioners or the Public Service Arbitrator in deciding future applications for the extension of equal pay provisions to other awards. In February 1970, Commissioner Winter of the Commonwealth Conciliation and Arbitration Commission granted progressive increases in the pay rates of adult female process workers employed under the Commonwealth Metal Trades Award, so that from 1 January 1972 their rates would be equal to adult male rates.

In a decision handed down on 15 December 1972, the Full Bench of the Commission decided to enlarge the concept of 'equal pay for equal work' to that of

'equal pay for work of equal value,' i.e. award rates for all work should be considered without regard to the sex of the employee. The new principle will be applied to all awards of the Commission. However, because the social and economic consequences of the decision are considerable, implementation will not be complete until June 1975. The decision is not intended to rescind the 1969 principles applicable to equal pay for equal work which will continue to apply in appropriate cases. In the same decision the Commission rejected the claim that adult females be paid the same minimum wage as adult males because of the family considerations involved in male minimum wages.

A historical discussion on the relativities of male and female wage rates was included on pages 290-2 of the *South Australian Year Book* 1970.

Award Wages

The minimum weekly amounts provided in awards, determinations, and registered agreements under Commonwealth and State jurisdiction are known as award rates. The amounts shown in the following tables are a weighted average of minimum weekly wage rates payable to adult males and females in South Australia. Generally these are award rates; however, in a few cases where registered agreements are dominant in a particular industry, rates prescribed therein are used. The amounts shown should not be regarded as actual current averages, but rather as indexes expressed in money terms. The minimum rates used are for representative occupations within each industry, the weights for each occupation and industry being based on sample surveys conducted in 1954, with allowance made where necessary for subsequent changes in the industrial structure. Because of coverage difficulties rural industries are excluded. The statistics are designed to show movements in minimum wages as distinct from salaries, with the result that those awards, etc. which relate solely or mainly to salary earners have been excluded.

The following table shows weighted average minimum weekly wage rates for adult males and adult females with separate details shown for male employees covered by awards, etc. within Commonwealth and State jurisdictions. The index numbers refer to the total adult male and female wage rates.

Minimum Weekly Wage Rates: South Australia^(a)

31 December	Rates of Wage				Index Numbers (Base: Australia 1954 = 100)	
	Adult Males			Adult Females (All Awards)	Adult Males	Adult Females
	Common- wealth Awards, Etc.	State Awards, Etc.	All Awards			
	\$	\$	\$	\$		
1939.....	9.52	9.18	9.41	(b)	33.3	(b)
1945.....	11.76	11.25	11.60	(b)	41.1	(b)
1948.....	15.41	14.81	15.22	(b)	53.9	(b)
1951.....	23.72	23.35	23.60	17.02	83.6	85.5
1954.....	28.51	27.42	28.16	19.99	99.7	100.4
1957.....	30.92	30.22	30.69	21.95	108.7	110.3
1960.....	34.54	33.49	34.22	24.29	121.2	122.0
1963.....	36.81	35.48	36.40	25.52	128.9	128.2
1966.....	42.13	40.90	41.75	29.42	147.8	147.8
1969.....	51.65	48.72	50.76	35.94	179.7	180.5
1970.....	52.80	50.54	52.11	37.49	184.5	188.3
1971.....	59.61	57.00	58.85	43.47	208.2	218.3

(a) Weighted average of minimum weekly rates payable for a full weeks work (excluding overtime) as prescribed in awards, determinations and agreements. Excludes rural industries.

(b) Comparable figures are not available.

Classified as Commonwealth are awards of, or agreements registered with, the Commonwealth Conciliation and Arbitration Commission and determinations of the Commonwealth Public Service Arbitrator. Incorporated under the State heading are awards or determinations of, or agreements registered with, State industrial tribunals, together with any unregistered agreements used in the computations.

In the next table weighted average minimum weekly wage rates for males and females are shown for individual industrial groups.

Minimum Weekly Wage Rates: Industrial Groups, South Australia^(a)
At 31 December

Industrial Group	1968	1969	1970	1971	1972
Dollars					
ADULT MALES					
All industrial groups	48.23	50.76	52.11	58.64	64.27
Mining and quarrying	46.25	49.31	50.34	56.84	61.25
All manufacturing groups	47.87	49.95	50.73	57.73	62.90
Engineering, metal works etc. .	48.44	50.30	50.33	57.94	62.52
Textiles, clothing and footwear	44.17	46.94	49.84	54.05	61.66
Food, drink and tobacco	44.98	47.35	50.02	55.66	61.08
Sawmilling, furniture, etc.	47.75	50.08	50.08	57.67	60.85
Paper, printing, etc.	52.13	54.43	56.62	64.51	70.23
Other manufacturing	47.68	49.99	51.48	57.58	64.42
Building and construction	50.50	53.11	55.43	61.36	66.77
Railway services	45.26	49.18	49.23	55.19	58.88
Road and air transport	46.50	49.13	50.55	55.23	60.28
Shipping and stevedoring	51.60	55.10	59.54	63.93	71.54
Communication	58.50	64.16	68.88	77.05	85.15
Wholesale and retail trade	47.11	49.40	50.64	57.07	64.97
Public authority (n.e.i.) and community and business services...	45.56	49.36	49.59	56.40	62.03
Amusement, hotels, personal services, etc.	43.42	45.54	48.86	54.36	57.93
ADULT FEMALES					
All industrial groups	33.60	35.94	37.49	43.46	50.12
All manufacturing groups	32.44	34.78	36.66	43.05	49.46
Engineering, metal works, etc. .	32.52	34.64	37.84	45.57	53.10
Textiles, clothing and footwear	32.48	35.01	36.71	43.06	47.97
Food, drink and tobacco	31.98	34.21	35.53	40.45	45.98
Other manufacturing	32.64	35.14	35.78	41.45	48.76
Transport and communication ..	37.16	40.67	43.64	50.77	57.02
Wholesale and retail trade	34.99	36.83	38.01	43.51	51.67
Public authority (n.e.i.) and community and business services...	33.59	37.17	37.99	43.16	48.22
Amusement, hotels, personal services, etc.	31.59	33.84	35.01	40.78	45.14

(a) For details of coverage see text above.

Holiday Pay

On 7 June 1972 a Full Bench of the Arbitration Commission handed down a decision which will eventually result in increases in annual recreation leave pay to a large number of Australian workers. The Bench ruled that over-award

payments, shift work premiums, industry allowances and some other allowances should be included in holiday pay. General provisions only were introduced as each award was to be considered separately. Since 1 November 1972 which was the implementation date, various awards have been altered to provide higher holiday pay benefits to employees.

EARNINGS

Figures given in this section relate to actual average weekly earnings (including award wages, salaries, overtime earnings, over-award and bonus payments and prepayments) of all wage earners and salaried employees, whether adult or junior, full-time, part-time, or casual. Payments to members of the defence forces are excluded.

Particulars of wages and salaries are not available for males and females separately and average earnings have therefore been calculated by dividing total civilian employment expressed in terms of 'male units'. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings.

Average Weekly Earnings per Employed Male Unit, South Australia^(a)

Year	September Quarter	December Quarter	March Quarter	June Quarter	Year
	Dollars				
1967-68 ..	60.30	62.00	59.60	62.20	61.10
1968-69 ..	63.70	66.60	63.80	66.60	65.20
1969-70 ..	69.30	72.90	68.10	73.50	70.90
1970-71 ..	76.10	78.70	76.20	82.00	78.20
1971-72 ..	(b) 85.00	88.80	83.40	89.70	86.70
1972-73 ..	89.80	96.20	91.30	*	*

(a) Includes Northern Territory.

(b) Excludes allowances paid to trainee teachers from September 1971.

As quarterly figures are affected by seasonal influences, comparisons for trends should be made by relating complete years or corresponding quarters. Because of variation in coverage, etc. these figures cannot be related to the minimum weekly wage rates shown in the preceding section.

Separate estimates of the average weekly earnings of males and females, and of adults and juniors, shown in the next table, have been obtained from sample surveys conducted in the last pay-periods of October from 1968 to 1972.

Before October 1972 these surveys were based on a sample selection of private employees subject to payroll tax; thus employees of government and semi-government authorities as well as those of religious, benevolent and similar organisations exempt from payroll tax were excluded. However in October 1972 collections in the government, semi-government and local government sectors were introduced. Employees in agriculture and domestic service are excluded.

Summarised results of the last five surveys are given in the following table.

Average Earnings: Private Employment, South Australia

October	Average Weekly Earnings				Average Hourly Earnings			
	Males		Females		Males		Females	
	Adult	Junior	Adult	Junior	Adult	Junior	Adult	Junior
	Dollars							
1968.....	64.60	31.70	37.20	23.90	1.51	0.77	0.93	0.61
1969.....	68.90	34.40	39.90	27.00	1.58	0.83	1.01	0.68
1970.....	73.90	36.20	43.50	28.50	1.72	0.88	1.11	0.73
1971.....	83.70	40.60	50.70	33.30	1.96	0.99	1.28	0.85
1972.....	89.50	46.00	56.40	37.70	2.10	1.12	1.44	0.97

Similar surveys are conducted at irregular intervals to determine the distribution of employees at various levels of earnings. The latest survey was conducted in May 1971 and a summary of results is given in the following tables. The survey coverage was restricted to adult male employees with part-time and casual employees being excluded.

Adult Male Employees: Level of Earnings, South Australia, May 1971^(a)
Managerial Staff

Earnings Per Week	Private Employees			Government Employees	Total		
	Manufacturing Groups	Non-Manufacturing Groups	All Industry Groups		Manufacturing Groups	Non-Manufacturing Groups	All Industry Groups
	PERCENTAGE IN EACH GROUP						
Less than \$100	29.4	35.8	34.5	6.6	28.2	25.6	26.9
\$100 and less than \$120.....	25.0	23.9	24.9	9.8	23.9	19.0	21.0
\$120 and less than \$140.....	16.2	14.7	15.8	14.8	16.9	14.9	15.5
\$140 and less than \$160.....	11.8	10.1	10.7	23.0	11.3	14.3	13.9
\$160 and less than \$180.....	4.4	5.5	5.1	16.4	4.2	9.5	8.0
\$180 and less than \$200.....	2.9	3.7	3.4	9.8	4.2	6.0	5.0
\$200 and over	7.4	5.5	6.2	21.3	9.9	10.1	9.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Statistics collected for pay-period which included 12 May 1971.

Adult Male Employees: Level of Earnings, South Australia, May 1971^(a)
Other Than Managerial Staff^(b)

Earnings Per Week	Manufacturing Groups		Non-Manufacturing Groups		All Industry Groups		
	Private	Government	Private	Government	Private	Government	Total
	PERCENTAGE IN EACH GROUP						
Less than \$50	2.6	0.9	2.5	1.6	2.4	1.6	2.1
\$50 and less than \$60.....	11.2	13.0	17.7	9.8	13.7	10.2	12.4
\$60 and less than \$70.....	18.3	16.7	25.7	18.6	21.1	18.3	20.1
\$70 and less than \$80.....	16.6	20.4	18.4	18.1	17.5	18.4	17.8
\$80 and less than \$90.....	19.7	20.4	13.3	15.7	17.3	16.4	16.9
\$90 and less than \$100.....	13.0	9.3	8.0	10.3	11.1	10.2	10.8
\$100 and less than \$120.....	12.6	11.1	8.3	13.3	11.0	12.8	11.6
\$120 and over	6.2	8.3	5.5	12.8	6.1	11.9	8.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Statistics collected for pay-period which included 12 May 1971.

(b) Includes minor supervisory employees, leading hands, clerical and office staff as well as ordinary wages employees.

HOURS OF WORK

The 40-hour week is the standard working week for employees under Commonwealth and State awards; however, the number of hours constituting a full week's work varies between occupations. A significant variation to this standard working week was achieved during 1972 in the stevedoring industry where waterside workers were granted a 35-hour week. Certain Commonwealth awards covering rural industries prescribe hours in excess of forty, while other occupations by tradition work less than forty hours, although forty hours is generally retained in their awards.

The weighted average standard hours (excluding overtime) prescribed in awards, determinations, and agreements for a full working week for adult male employees in all industries in South Australia, except rural, shipping, and stevedoring, was 39.96 hours at 30 June 1972. This compared with 43.83 hours at 30 September 1947 immediately before the introduction of the 40-hour week. The weighted average for female employees at 30 June 1972 was 39.77 hours. The weighted average figure for South Australian male employees has not changed significantly since 1953, nor for females since 1951. The normal working day in manual trades is of eight hours duration, and employees working beyond these hours are paid penalty rates.

The following table shows the relative distribution of employed civilian wage and salary earners in Australia according to the number of hours worked in a specified week, as recorded in the August Labour Force Surveys for each of the years 1968 to 1972.

The distribution is based on actual hours worked, including overtime, rather than hours paid for, and is therefore affected by public holidays, leave, absenteeism, temporary absence from work because of sickness, accident and industrial disputes, and work stoppages caused by plant breakdowns and weather.

Employed Persons: Hours Worked, Australia^(a)

August	Proportion who Worked the Following Hours in the Specified Week							Total
	0	1-29	30-34	35-39	40	41-48	Over 49	
	Per cent							
1968.....	5.2	9.2	4.9	9.9	44.2	11.7	14.9	100.0
1969.....	5.3	9.9	5.2	10.3	41.6	12.2	15.5	100.0
1970.....	5.2	10.2	5.3	11.9	39.3	12.2	15.9	100.0
1971.....	4.4	10.2	4.1	11.3	42.3	11.8	15.9	100.0
1972.....	5.8	10.4	3.7	11.1	41.3	11.6	16.1	100.0

(a) Employed civilian population, fifteen years of age and over.

HOLIDAYS AND LEAVE

Public Holidays

A number of days are observed each year throughout the State as public holidays and additional days may be proclaimed either on a State-wide basis or applicable to particular localities. Employees required to work on public holidays

normally receive an extra day's pay and are paid at penalty rates. From 1971 authorised public holidays are:

- New Years 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 (traditionally falls on the Monday following the second Saturday in June),
- Labour Day (second Monday in October),
- Christmas Day (25 December or the following Monday if 25 falls on a Saturday or Sunday), and
- Proclamation Day (28 December or the following Monday if 28 falls on a Saturday or Sunday).

The Holidays Act makes provision for other days to be proclaimed in lieu of the authorised holidays.

Annual Leave

Under Commonwealth awards generally three weeks annual recreation leave is granted to employees who have completed twelve months continuous service and there are provisions for a proportionate credit where employment is terminated before the completion of twelve months. Under State awards the Commonwealth standard has generally been adopted.

From 1 July 1971 employees of the South Australian Public Service became entitled to four weeks annual recreation leave. However, with the exception of some employees engaged in essential services *e.g.*, hospitals, motor vehicle registrations etc., State public servants are required to take three days of their recreation leave between the Christmas and New Year holidays. Four weeks annual recreation leave was granted to employees of some South Australian semi-government instrumentalities in the latter months of 1971. Commonwealth Public Servants were granted four weeks annual recreation leave from 1 January 1973.

Certain employees in special occupations or where regular shift work is involved *e.g.* police officers, nurses, etc., are entitled to annual recreation leave in excess of four weeks.

The Industrial Conciliation and Arbitration Act, 1972 for South Australia provides that all full-time employees shall be eligible to receive annually not less than ten days cumulative sick leave on full pay. This provision of two weeks sick leave a year is included in most Commonwealth and State awards. The Commonwealth *Conciliation and Arbitration Act* 1972 also provides for insertion in awards allowance for unlimited accumulation of sick leave.

Long Service Leave

In 1964 the Commonwealth Conciliation and Arbitration Commission included, for the first time in a Commonwealth award, long service leave, granting employees in the graphic arts and metal trades industries leave on the basis of

thirteen weeks for twenty years service in respect of employment before the date of the decision, and eight and two-thirds weeks in respect of each ten years of subsequent services; these provisions have been extended to many other Commonwealth awards. In a number of other cases, registered agreements provide for thirteen weeks leave after fifteen years service.

The South Australian Long Service Leave Act, 1967-1972 entitles employees in respect of continuous service after 1 January 1972 to thirteen weeks leave for each ten years service. In respect of service before 1 January 1972 the entitlement is calculated at the rate of thirteen weeks for fifteen years service for the period 1 January 1966 to 31 December 1971 and at the rate of thirteen weeks for twenty years service for the employment period up to 31 December 1965. The obligation to grant leave is imposed on all employers in South Australia except in regard to employees entitled to long service leave pursuant to an award of the Commonwealth Conciliation and Arbitration Commission. The Industrial Commission has the power to exempt an employer from the provisions of the Act where the employees involved have access to benefits not less favourable than those prescribed by the Act. Other provisions of the Act relate to payment for leave, deferment of leave, claim for leave on termination of employment, and notice of granting of leave.

State and local government employees are in general entitled to thirteen weeks leave after ten years service, and Commonwealth Government employees to four and a half months after fifteen years service. The long service leave provisions which apply to State public servants are also extended to teachers employed under the Education Act.

The various long service leave arrangements provide for additional *pro rata* periods of leave for service in excess of the minimum, and for *pro rata* payments for employees who have completed a specified term of service but who, through the termination of their services or through death, do not complete the full entitlement period.

7.4 INDUSTRIAL SAFETY

SAFETY REGULATIONS AND INSPECTION

On the recommendation of the Parliamentary Select Committee on Occupational Safety, Health and Welfare in Industry and Commerce, a new Act, the Industrial Safety, Health and Welfare Act, was passed in 1972. This Act will ultimately replace those sections of the Industrial Code, 1967-1972 that deal with the safety, health and welfare of persons employed in factories, shops, offices and warehouses and the Construction Safety Act, 1967 with respect to persons employed on building and construction sites.

Only general principles applicable to all employed persons in industry (primary as well as secondary), commerce and in State Government are contained in this Act. It authorises the making of detailed provisions by regulations for different industries and different processes. The Act will progressively come into operation as regulations for different industries are prepared. Until the new regulations come into force the relevant sections of the Industrial Code, 1967-1972 and the Construction Safety Act, 1967 will still apply.

At present most of the legislation directed at industrial safety is administered by the Department of Labour and Industry, although other authorities hold responsibilities in certain fields.

Department of Labour and Industry

The general working conditions in factories, shops, offices and warehouses are regulated by the Industrial Code, 1967-1972. Inspections are made by departmental officers to ensure that the requirements of the Industrial Code with respect to safeguarding of machinery, safety of processes, cleanliness and general working conditions in factories are being observed.

The registration and inspection of steam boilers and other pressure vessels is provided for under the Boilers and Pressure Vessels Act, 1968-1971. The Lifts and Cranes Act, 1960-1972 regulates the use of lifts, escalators, cranes and hoists, and requires the Department to approve new installations and to inspect regularly existing lift equipment. The Inflammable Liquids Act, 1961, and the Liquefied Petroleum Gas Act, 1960, regulate the storage and carriage of these products. The Construction Safety Act, 1967 regulates the safety, health and welfare of employees on building, demolition and excavation work and the safety of equipment (scaffolding, hoists, etc.) used on building and construction sites.

Department of Mines

Regulations under the Mines and Works Inspection Act, 1920-1970 provide for the health and safety of persons engaged in mining, quarrying or associated treatment plants and for the protection of the general public. Mining sites must be maintained in safe conditions with specific attention given to ventilation, sanitation and the use of explosives. Officers of the Department inspect mines and quarries; check old workings; investigate mining accidents and complaints associated with mining activities; and give advice to industry on matters pertaining to mining and explosives.

Department of Public Health

Health aspects of industrial safety are the responsibility of the Occupational Health Section of the Department of Public Health. The Department investigates health hazards resulting from the presence of toxic and noxious substances in industry, both on its own initiative and on reference from employers, unions, other authorities, and individuals. Investigations are carried out where radio-active and irradiating apparatus is in use for industrial, scientific, or medical purposes.

Chemistry Department

The Explosives Act, 1936-1972 regulates the importation, manufacture, carriage, storage, and sale of explosives. The Chemistry Department is responsible for the maintenance of government magazines and the licensing and inspection of private magazines. Vehicles used in the carriage of explosives are also licensed. Almost all commercial explosives, including fireworks, entering the State are inspected by the Department.

Electricity Trust of South Australia

Electrical installations are required to conform to the service rules of the Electricity Trust and the wiring rules of the Standards Association of Australia, and are subject to inspection by Electricity Trust officers. Persons engaged in

the installation, maintenance or repair of electrical services and permanently connected equipment must be licensed to do this work in accordance with the provisions of the Electrical Workers and Contractors Licensing Act, 1965-1966.

WORKMEN'S COMPENSATION

Legislation

Provisions describing assistance for workmen sustaining personal injury out of or in the course of their employment are included in the South Australian Workmen's Compensation Act, 1971. The provisions of the Act extend to accidents during recess periods, travelling to or from work, travelling to or from or while in attendance at a place of pick up, travelling to or from or attending a trade or technical school, and travelling for medical treatment while on compensation.

Diseases attributable to the nature of the employment are within the terms of the Act and special provision is made for silicosis and for certain industrial diseases contracted at Port Pirie. The present Act provides for compensation for two diseases which had not been compensatable previously, noise induced hearing loss and asbestosis.

Compensation is payable when the injury results in death, or in total or partial, permanent or temporary incapacity. Where death results from the injury the Act provides for the payment of a lump sum based on the previous six year's earnings plus \$300 for each dependent child under eighteen years, with a minimum payment of \$5,000 and a maximum of \$15,000 plus the dependent child allowance. Proportionate payments are made to partial dependants, and where there are no dependants medical and funeral expenses (up to \$300) are met. The minimum weekly rate of compensation payable during work caused total incapacity is \$19 unless the workman is unmarried, under 21 years of age and without dependants, in which case the minimum is \$19 or average weekly earnings, whichever is lower. The maximum weekly payments are \$43 for an unmarried workman and \$65 for a married workman with dependants, or average weekly earnings, whichever is the lower.

Provision is made for lump sum payments in lieu of weekly payments. Such payments are arranged by agreement; or after six months, by proceedings in the Industrial Court of South Australia on application of either employer or employee. The total liability of the employer is limited to \$15,000 in the case of total incapacity and \$12,000 for partial incapacity, in addition to weekly payments already made. Lump sum payments are payable for certain specified injuries e.g. loss of limbs, for permanent injuries which may involve total or partial incapacity for work whether actual or potential e.g. speech loss, or no incapacity for work e.g. severe facial scarring. In addition to other compensation reasonable medical, hospital, nursing, constant attendance, rehabilitation and ambulance expenses are paid and compensation is provided to \$60 for loss or damage to clothing and \$200 for loss or damage to tools of trade.

Excluded from the scope of the Act are persons working at home or sub-contracting, members of the crews of fishing vessels remunerated by a share in the profits or the gross earnings of the working of such vessels, service personnel and Commonwealth employees. Compensation for employees of the Commonwealth Government is provided by the *Compensation (Commonwealth Employees) Act 1971*.

Workmen's Compensation Insurance

The Workmen's Compensation Act requires every employer, unless specifically exempted, to obtain from a licensed insurance company a policy which fully covers his liability under the Act. The exemptions are the State Government which provides its own cover through the State Government Insurance Fund, the South Australian Railways Commissioner, and any employer who can satisfy the Minister of Labour and Industry of his ability to meet all probable claims and who is accordingly issued with a certificate of exemption.

The following table shows the number of effective claims lodged with, and total compensation payments made by, insurance companies and self insurers during each of the last five years. Payments shown against any year will include some payments arising from claims lodged in earlier years.

Workmen's Compensation Claims, South Australia

Year	Claims Lodged	Payments Made	Average Payment per Claim
	No.	\$'000	\$
1967-68	54,200	5,774	107
1968-69	54,500	6,078	112
1969-70	58,300	6,799	117
1970-71	56,300	7,688	137
1971-72	59,700	10,407	174

INDUSTRIAL ACCIDENTS

Detailed information on industrial accidents in South Australia was first collected in 1961. Statistics are compiled from reports of workmen's compensation claims submitted by insurers through the South Australian Department of Labour and Industry. The collection is restricted to fatal accidents and to accidents causing an absence from work of one week or more. Cases involving travelling to or from place of employment, or occurring during a recess period, are excluded.

Particulars of the number of industrial accidents, of time lost, and compensation paid are given in the next table for the years 1967-68 to 1971-72. The figures for any one year relate to claims closed during the year and to unclosed claims at the end of the year which have been outstanding for three years. Fluctuations in the flow of processing and reporting of claims can significantly affect the figures for any given year. Of the 11,628 non-fatal accidents in 1971-72, 1,491 or 12.8 per cent involved females. The nine reports of fatal accidents received during the year all referred to male workmen. During 1971-72 the number of workmen's compensation claims processed by insurers which involved absences from work of one week or more rose substantially. The increase coincided with the coming into operation of the 1971 Act.

Industrial Accidents, South Australia

Particulars	Unit	1967-68	1968-69	1969-70	1970-71	1971-72
Accidents:						
Fatal	No.	12	14	10	8	9
Non-fatal	No.	9,562	9,888	9,859	9,460	11,628
Time lost (non-fatal accidents):						
Total	week	38,942	40,089	40,919	36,245	44,267
Average per accident	week	4.1	4.1	4.2	3.8	3.8
Amount Paid (a):						
Fatal accidents	\$'000	117.8	113.7	90.5	136.9	116.0
Non-fatal accidents	\$'000	3,041.0	3,143.1	3,360.5	3,235.7	4,330.4
Total	\$'000	3,158.8	3,256.8	3,451.0	3,372.6	4,446.4
Average per non-fatal accident	\$	318	318	341	342	372

(a) Compensation for wages lost, hospital and medical expenses, and lump sum settlements.

Industrial accidents for 1971-72 are classified below by industry group. As the statistics are based on workmen's compensation claims, persons outside the scope of the South Australian Workmen's Compensation Act are excluded. Notable exclusions are self-employed persons and all Commonwealth Government employees. Thus persons employed within some industry groups, e.g. defence services and communication, are not covered at all while coverage is reduced in other groups, particularly in commerce and primary production.

Industrial Accidents: Industry Groups, South Australia, 1971-72

Industry Group	Fatal Accidents		Non-fatal Accidents			
	Number	Amount Paid (a)	Number	Proportion of Total	Time Lost	Amount Paid (a)
		\$'000		Per cent	Weeks	\$'000
Primary production	—	—	896	7.7	3,798	312.4
Mining and quarrying	—	—	123	1.1	472	60.0
Manufacturing	5	66.9	5,383	46.3	19,492	2,145.2
Electricity, gas, water, and sanitary services	—	—	496	4.3	2,344	190.7
Building and construction ..	3	38.8	1,689	14.5	6,514	675.1
Transport and storage	1	10.3	817	7.0	2,985	251.0
Finance and property	—	—	28	0.2	88	6.5
Commerce	—	—	1,274	11.0	4,200	380.0
Public authority (n.e.i.) and community and business services	—	—	514	4.4	2,668	177.1
Amusement, hotels, accommodation, cafes, etc.	—	—	408	3.5	1,707	132.4
Total	9	116.0	11,628	100.0	44,267	4,330.4

(a) Compensation for wages lost, hospital and medical expenses, and lump sum settlements.

Almost half of the accidents reported during 1971-72 resulted in absences from work of one week or more but less than two weeks (48.1 per cent for males and 49.9 per cent for females). A further 27.9 per cent of males and 27.4 per cent of females involved in reported accidents experienced work absences of two to four weeks. Work absences of one year or more were reported in respect of 0.4 per cent males and 0.7 per cent females.

In the following table industrial accidents are allocated to an accident factor, this being the underlying agency, other than human failing, which appeared to contribute most materially to the accident.

Industrial Accidents: Accident Factor, South Australia

Accident Factor	1969-70		1970-71		1971-72	
	Fatal	Non-fatal	Fatal	Non-fatal	Fatal	Non-fatal
Machinery	—	1,129	—	904	1	1,092
Vehicles	2	425	3	408	3	486
Electricity, explosions, flames, hot substances	2	243	2	263	2	274
Falling, slipping, stumbling, etc.	5	2,209	—	2,106	2	2,503
Striking against, stepping on, etc. ...	—	408	1	523	—	610
Handling	—	2,387	—	2,404	—	3,167
Objects moving or falling	—	1,602	—	1,510	—	1,818
Hand tools	1	875	1	743	—	994
Miscellaneous	—	581	1	599	1	684
Total	10	9,859	8	9,460	9	11,628

The following table indicates the distribution of non-fatal accidents for 1971-72 by the nature and location of injury.

Industrial Accidents: Non-fatal Accidents, Nature and Location of Injury South Australia, 1971-72

Nature of Injury	Head (including eye)	Neck and Spine	Trunk	Arm and Hand	Leg and Foot	Total (including other)
	Persons					
Contusion, bruising and superficial injury	74	33	382	600	845	1,934
Lacerations	129	1	13	1,822	403	2,368
Foreign bodies	210	—	1	—	—	211
Burns and scalds	85	2	21	179	134	421
Fractures	26	24	174	483	509	1,216
Dislocations	—	80	14	46	16	156
Sprains, strains, hernias ..	—	538	2,511	955	1,013	5,017
Traumatic amputations ..	—	—	—	99	—	99
Concussion	113	—	—	—	—	113
Internal and nerve injury ..	1	8	23	18	4	54
Other and unspecified	4	—	—	—	—	39
Total	642	686	3,139	4,202	2,924	11,628

INDUSTRIAL DISEASES

The International Labour Office distinguishes an industrial disease from a work injury in that it exhibits the following characteristics:

- (i) the slow and protracted nature of its cause,
- (ii) its ascribability to repeated continuous action of a mechanical, physical or chemical cause; it is not the effect of a single event but of a cause acting imperceptibly and constantly,
- (iii) indeterminateness of the time of its beginning due to its slow and insidious development,
- (iv) the possible importance of individual predisposition as a factor in the development of the pathological conditions.

Where there is any evidence at all that a disease has resulted from an initial injury, the episode is classified as an injury rather than a disease. On the other hand, disabilities caused purely by continuous movements of a joint are treated as a disease.

Industrial Diseases: South Australia, 1971-72

Disease	Number of Claims		Time Lost: Non-fatal Diseases		Amount Paid: Fatal and Non-fatal Diseases	
	Fatal	Non-fatal	Male	Female	Male	Female
			Weeks		\$'000	
Infective and parasitic diseases	—	37	53	147	3.5	10.0
Diseases of the nervous system and sense organs	—	17	48	17	4.2	0.8
Disease of the circulatory system: Arteriosclerotic and degenerative heart disease	8	21	393	—	109.8	—
Other	—	4	15	2	2.1	0.1
Diseases of respiratory system	1	13	30	3	6.0	0.1
Diseases of skin and cellular tissue:						
Occupational dermatitis . .	—	148	308	204	68.5	29.0
Other	—	60	104	42	12.0	2.0
Diseases of bone and organs of movement	—	209	465	590	38.8	35.7
Other	—	20	45	22	4.5	1.2
Total	9	529	1,461	1,026	249.4	78.9

PART 8

PHYSICAL DEVELOPMENT

8.1 WATER SUPPLY AND SEWERAGE

WATER SUPPLY

With 96 per cent of the State receiving less than 20 inches of rain a year, and high evaporation increasing the demand for water and causing heavy losses from reservoirs, water conservation is of vital importance to South Australia.

The Waterworks Act, 1932-1972 gives the Minister of Works power to divert and impound the water from any streams or springs and take the water found in or under any lands for the purpose of constructing, completing, extending or maintaining any waterworks or for supplying water to or in any water district. The Act also gives the Minister power to declare any district, place or town a water district. The function of exploiting water resources is performed through the Engineering and Water Supply Department.

The Control of Waters Act, 1919-1925 provides that any stream in the State may be brought within the Act by proclamation. This Act has only been applied to the River Murray, making water available to riparian users through annual licence.

The Underground Waters Preservation Act, 1969-1970 provides for strict control within certain areas which may be defined by the Government. In such areas the owners must record full details of all wells with the Department of Mines and must have a permit to alter a well or sink others. Underground water usage can also be regulated. Further details concerning underground water appear on pages 25-6.

The Water Conservation Act, 1936-1972 provides for the control of small reservoirs, bores, tanks etc. established in remote areas as emergency water supplies or to assist local development.

The following table gives details of water supplies in South Australia at 30 June in selected years since 1881 and for the five most recent years.

Water Supplies, South Australia^(a)

At 30 June	Area of Works	Storage Capacity (b)	Length of Mains
	Sq miles	Acre ft	Miles
1881	<i>n.a.</i>	3,986	408
1891	(c)2,167	6,825	976
1901	2,279	18,554	1,577
1911	4,383	28,079	2,793
1921	7,740	46,924	4,126
1931	18,677	62,229	6,030
1941	18,544	87,774	6,450
1951	18,701	88,244	7,203
1961	20,498	130,488	9,292
1968	21,760	167,063	11,447
1969	22,317	167,150	11,582
1970	25,136	185,800	11,753
1971	25,150	185,800	12,023
1972	25,173	185,882	12,454

(a) Controlled by Engineering and Water Supply Department and preceding State authorities. (b) Includes pipeline storage tanks. (c) 1892.

DISTRIBUTION OF WATER RESOURCES

Drainage Systems

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 forms the basis of all important reservoirs, and the Murray-Darling Division, the waters of which are allocated between this State, Victoria and New South Wales in accordance with the terms of the River Murray Waters Agreement (see page 330).

Part of the large Lake Eyre Drainage Division covers the north-eastern corner 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. A section of the South-east Coast Drainage Division which intrudes into South Australia has no co-ordinated drainage patterns in this State to form a significant surface water resource but a high rainfall in the area is related to underground resources of considerable importance to the State. Local rainfall is also related to underground resources on the seaward edge of the Western Plateau Division in South Australia.

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 2,384 feet east of Adelaide and to over 3,000 feet north of Burra and further north it follows the Flinders Ranges which reach a height of 3,822 feet 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.

The individual river basins in this division are very small. Rainfall in excess of 30 inches per year occurs only on a very small area in the Mount Lofty Ranges and in the north-west of the Division the annual average is less than 6 inches.

In the south, apart from the more elevated areas, average precipitation exceeds evaporation only from May to August, and over most of the Division monthly evaporation rates exceed rainfall throughout the year.

Development of the streams in the Mount Lofty Ranges, mainly for supply to the closely settled area around Adelaide, has in most cases reached the practicable limit and there seems to be little scope for further development of surface water elsewhere in the Division. In fact this Division has long been an area of net import of water with supplies coming by pipeline to Adelaide and Whyalla from the River Murray.

The average annual run-off in this Division at the lowest practical dam sites is estimated at 350,000 acre feet but is subject to considerable variation. The two best streams, the Onkaparinga and the Torrens, account for 110,000 acre feet of the average flow and the combined annual flow of these two has varied between 380,000 acre feet down to 7,000 acre feet in the last eighty years.

The present average annual extraction of water by the Engineering and Water Supply Department from the Gulf Drainage Division is about 80,000 acre feet; private diversion may take a further 10,000 acre feet. In the future a yield of 150,000 acre feet a year might be achieved.

Most of the South Australian reservoirs are situated in this Division as can be seen from the map on page 325. The following table shows the capacity, area at full supply level and the catchment area of the nine largest at 30 December 1972.

Major Reservoirs, South Australia^(a)
At 31 December 1972

Reservoir	Capacity	Area at Full Supply Level	Catchment Area
	Acre ft	Acres	Sq miles
South Para	41,647	1,096	88
Mount Bold	38,477	762	150
Myponga	21,763	693	48
Kangaroo Creek	19,791	300	111
Millbrook	13,441	440	90
Happy Valley	10,334	465	174
Tod River	9,196	330	76
Bundaleer	5,163	210	645
Warren	5,163	338	46

(a) All reservoirs with a capacity in excess of 5,000 acre feet.

River Murray

The River Murray is the most important source of water supply for South Australia. Under the Terms of the River Murray Waters Agreement (see page 330) South Australia is entitled to 1,254,000 acre feet of water annually which is available subject to the declaration of restriction by the River Murray Commission. Most of this water is used for irrigation purposes but more than 100,000 acre feet is used for water supply. The completion of present works will give pipelines with an ultimate demand of 325,000 acre feet.

At present water supply is supplemented by Murray water mainly through the Mannum-Adelaide, Morgan-Whyalla, Swan Reach-Stockwell and Tailem Bend-Keith pipelines.

The first water pumped through the Mannum-Adelaide pipeline reached the metropolitan system in 1954. The water is drawn from the River at Mannum nearly forty-two miles in a direct line from Adelaide, and is raised by three pump-

ing stations a total of 1,490 feet to a 30 million gallon summit storage near Tungkillo. At first the water flowed into the Torrens and Onkaparinga Rivers and hence into the metropolitan system; later the pipeline was extended to a terminal storage near Modbury. The Mannum-Adelaide pipeline is also connected to the Warren Reservoir on the South Para River and branches serve many country areas *en route*.

The Morgan-Whyalla pipeline, completed in 1944, includes four pumping stations which lift the water 1,558 feet over a distance of 57 miles from Morgan to a summit storage at Hanson. From here the water gravitates 166 miles *via* Port Augusta to Whyalla. Branch lines have been laid to Woomera (110 miles) and other country centres. The Morgan-Whyalla pipeline, being an additional source of supply for the Bundaleer system, has permitted reticulation over most of Yorke Peninsula. A second main was completed in 1966 and appurtenant works comprising additional storages and four new pumping stations were commissioned early in 1970. The second main which more than doubles the capacity of the scheme, parallels the original main to Baroota Reservoir, then extends westerly to Whyalla *via* a 7½-mile undersea crossing of Spencer Gulf.

A 33-mile pipeline between Swan Reach and Stockwell commenced operating in 1969 to supplement the supplies for lower northern areas from the Murray.

An 89-mile pipeline between Tailem Bend and Keith completed in 1969 forms the backbone of a scheme involving 500 miles of branch mains now being laid to supply River Murray water to towns and farmlands in the Upper South East.

A second large pipeline to augment the metropolitan supply is under construction and will be completed in 1973. The pipeline will extend for 30 miles from the River Murray near Murray Bridge to the River Onkaparinga near Hahndorf, and the water will be distributed through the reservoirs on the latter stream. Three pumping stations will lift the water 1,350 feet over the first 25 miles of the pipeline to a summit storage from which a 5-mile gravity section of the line will discharge into the Onkaparinga.

The River Murray also supplies towns along its banks by means of direct pumping.

Other Water Resources

The South East

The hydrology of the South East covers a complex of surface and underground waters with substantial water resources but to date most work has been concentrated on the removal of water by drainage and this is discussed on page 331.

The Eight Mile Creek to the east of Port MacDonnell carries a permanent natural overflow from the springs of the Ewen Ponds area and discharges 50,000 acre feet a year into the Indian Ocean and there are other visible outlets. The Blue Lake now provides 3,000 acre feet annually to Mount Gambier. There is scope for considerable development in the South East and it is likely that 100,000 acre feet could be used annually from this source.

Other Underground Supplies

The Adelaide and North Adelaide Plains and other areas provide usable waters, but in total the quantities are not large. The aquifers of the North Adelaide Plains have provided an increasing supply for market gardens and related irrigation, but the demand level of 20,000 acre feet has been found to be beyond the permanent capability of the area and this is being reduced by rigid control in the hope of reaching a balance. A more complete discussion on underground water together with a map appears on pages 25-6.

Water Consumption

The following table gives details of water used during the year and storage capacity at the end of the year for metropolitan and country districts for the years 1967-68 to 1971-72. The quantity of water pumped from the River Murray through the major pipelines is also shown.

Water Storage and Consumption, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Water storage (capacity at end of year):	Acre feet				
Adelaide metropolitan water supply (a)	134,649	134,653	154,471	153,050	153,756
Country water supply	32,424	32,497	32,775	32,750	32,127
Water consumption:					
Adelaide metropolitan water supply (b)	94,719	94,874	111,024	118,700	116,100
Country water supply (c)	46,438	43,777	51,985	54,000	53,700
Pumped from River Murray:					
Mannum-Adelaide pipeline	78,488	18,445	39,764	19,771	7,788
Morgan-Whyalla pipeline	20,296	13,335	17,613	18,853	16,139
Other supply systems	5,617	4,444	8,838	9,225	7,600

(a) Includes Myponga, South Para and Barossa reservoirs.

(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.

Metropolitan Water Supply

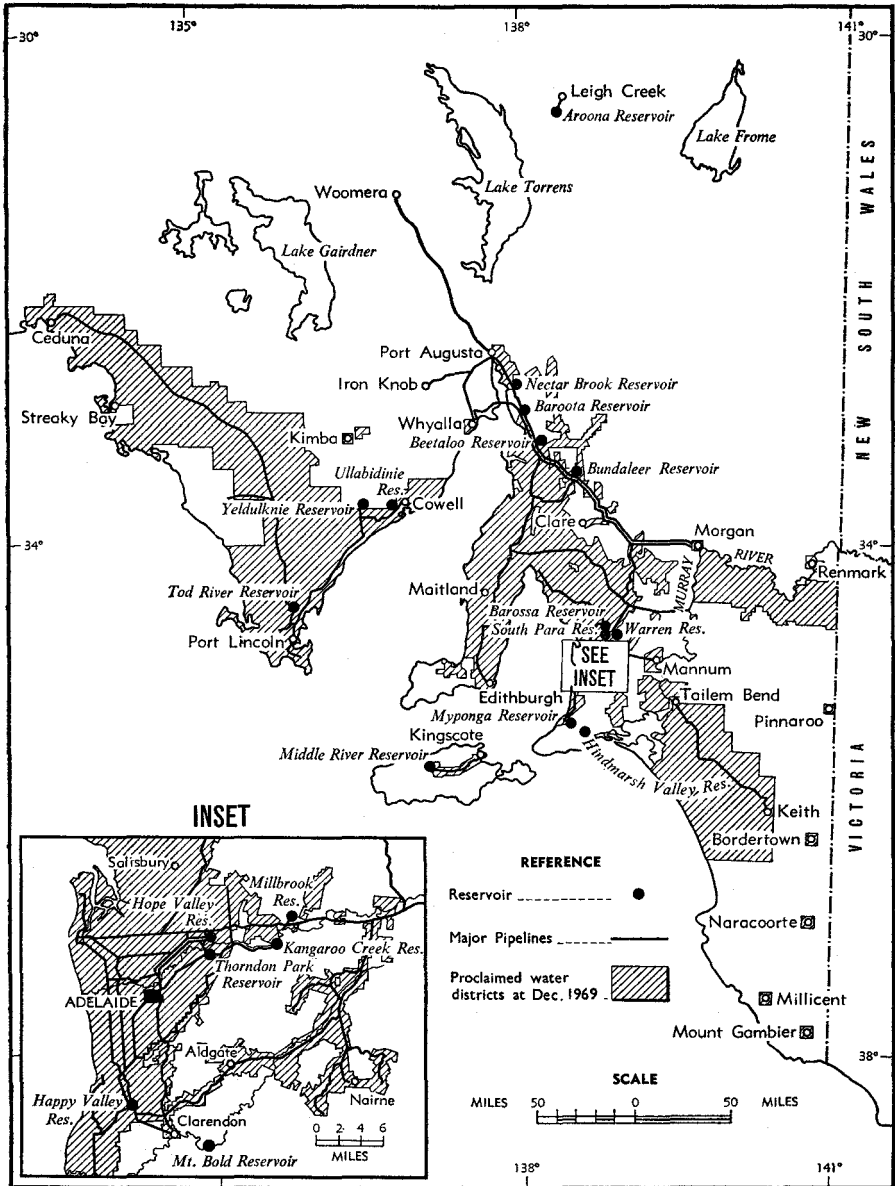
In the following table, details of metropolitan services as well as revenue and expenditure are given for the metropolitan water supply district for the years 1967-68 to 1971-72.

Adelaide Metropolitan Waterworks, South Australia

Particulars (a)	1967-68	1968-69	1969-70	1970-71	1971-72
Length of mains (miles)	3,735	3,833	3,910	3,978	4,074
Number of services	242,193	245,331	251,259	257,614	264,161
	\$'000				
Revenue:					
Rates and excess water	10,187	10,685	12,634	14,412	15,618
Other	80	108	88	101	154
Total	10,267	10,793	12,722	14,513	15,773
Expenditure:					
Working expenses	6,746	5,552	6,237	6,787	7,130
Interest	4,730	4,919	5,399	5,887	6,414
Total	11,476	10,471	11,636	12,674	13,544
Surplus	-1,209	322	1,086	1,839	2,229

(a) Includes particulars relating to near country areas supplied by extensions of Metropolitan distribution systems.

PORTION OF SOUTH AUSTRALIA
WATER SUPPLIES



WATER RATES AND CHARGES

Water rates are levied on all properties served from or abutting a water main except for properties specifically exempted from rating or in cases where supply by measure is given to properties outside of proclaimed water districts. Payment of rates permits the use of a quantity of water without further charge. This quantity, termed the rebate allowance, is determined by dividing the rate by

the current price of rebate water. Water used in excess of the allowance in any year is charged for by measure at the current price of excess water.

Two systems of rating are employed. In both cases scales of rates and prices of rebate and excess water vary in different districts, according to costs of construction and operation, and are subject to review from year to year.

In city and township water districts, rates are calculated on assessed annual property values which may be three-fourths of the gross annual rental value or 5 per cent of the capital value of the fee simple. The present rate at Adelaide is $7\frac{1}{2}$ per cent per annum on the assessed annual value with a minimum annual charge of \$16.00. The current price of rebate water and excess water at Adelaide is 40 cents per thousand gallons. Rates in country township water districts vary according to costs of constructing and operating schemes and are generally higher than in Adelaide. However, in most cases prices of rebate and excess water are the same as in the city.

Farmlands within certain proclaimed Country Lands Water Districts are rated on the area of land which is within one mile of a water main at a rate per acre based on unimproved land values. Current Country Lands rates vary from \$4.80 per hundred acres on land valued at \$2.00 per acre in the lowest rated district up to \$37.00 per hundred acres on land valued at \$24.00 or more per acre in the highest rated district. A minimum rate of \$16.00 is levied in most districts.

Services from mains to property boundaries are installed and maintained by the Engineering and Water Supply Department. Connection fees are uniform throughout the State and are currently \$45.00 for a one-half inch service and \$50.00 for a three-quarter inch service, with commensurately higher fees for larger services.

SEWERAGE

ADMINISTRATION

Sewerage of cities and towns in South Australia is undertaken by the State Government under the authority of the Sewerage Act, 1929-1972. The Act is administered by the Engineering and Water Supply Department for the Minister of Works and provides for waterborne sanitary sewerage schemes within proclaimed drainage areas. As a general rule the Government sewerage schemes are provided only in densely populated cities and towns where they are essential for public health reasons 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, 1934-1972 to provide sanitary drainage schemes and in recent years a number of these authorities have installed common septic tank effluent drainage schemes discharging to biological filters or oxidation ponds.

METROPOLITAN SEWERAGE

Sewerage for Adelaide was first authorised by an Act of Parliament in 1878. Construction began in 1879 and by 1881 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.

The proclaimed Adelaide Drainage Area at 30 June 1972 served an estimated population of 830,000 persons and covered 210 square miles of the Adelaide Plains between Darlington and Elizabeth and a segment of southern development around Christies Beach. Sewerage of the Blackwood-Belair area is proceeding. Subdivision developers are required to make capital contributions towards the cost of sewer and water extensions for all new allotments in areas capable of being served within the Drainage Area.

The next table shows details of metropolitan sewers for the last five years.

Metropolitan Sewers, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Adelaide Drainage Area (square miles)	191	195	197	207	210
Length of sewers (miles)	2,125	2,193	2,276	2,335	2,415
Number of connections	227,479	234,818	244,239	254,495	265,755
	\$'000				
Revenue:					
Rates	7,072	7,513	8,551	10,375	13,020
Other	84	87	92	102	143
Total	7,156	7,600	8,643	10,477	13,163
Expenditure:					
Working expenses	3,375	3,463	3,716	4,270	5,453
Interest	2,822	3,072	3,600	3,910	5,364
Total	6,197	6,535	7,316	8,180	10,817
Surplus	959	1,065	1,327	2,297	2,346
Capital cost to date (a)	79,367	81,823	88,277	94,950	101,837

(a) Total capital funds provided from State revenue and loan funds, Commonwealth Government Grants and other sources.

Four major sewerage systems are employed, each draining to separate sewage treatment works at Bolivar, Glenelg, Port Adelaide and Christies Beach. Islington Sewage Farm was abandoned in 1966 when the Bolivar Treatment Works were put into service. The new Christies Beach Treatment Works began operating in August 1971, and will serve a much larger area of the South Coast when fully completed. At present there are a number of small temporary treatment works installed in the Reynella-Morphett Vale area which will be phased out following the completion of the new Christies Beach Works.

A few 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.

COUNTRY SEWERAGE

At 30 June 1972 the drainage areas of country sewerage schemes constructed and operated by the Engineering and Water Supply Department totalled 36 square miles; the length of sewers laid was 331 miles and the number of connections totalled 19,222. Capital cost to this date amounted to \$21,370,000.

Sewerage schemes are located at Angaston, Gawler, Gumeracha, Lobethal, Mannum, Millicent, Mount Gambier, Murray Bridge, Myponga, Naracoorte, Port Lincoln, Port Pirie, Victor Harbor and Whyalla.

Construction of the Port Pirie, Gawler and Victor Harbor sewerage systems is still in progress. In 1971-72, 25 miles of sewers and 2,257 new connections were laid in country drainage areas. In addition, the Engineering and Water Supply Department has constructed schemes at Mount Burr and Nangwarry townships for the Woods and Forests Department and numerous schemes to serve country hospitals, institutions etc. operated by other authorities.

Common effluent drainage schemes have been installed by local government authorities at Berri, Bordertown, Cleve, Eudunda, Kapunda, Maitland, Nuriootpa, Pinnaroo, Port Elliot, Renmark and Waikerie and the construction or design of schemes for a number of other towns is in progress.

SEWER RATES AND CHARGES

The Engineering and Water Supply Department provides sewer connections to property boundaries but internal drainage systems which are the responsibility of landholders must conform to regulations under the Sewerage Act and must be installed by authorised plumbers. Standard fees for sewer connections are \$100 and \$150 for 4-inch and 6-inch sizes respectively.

Sewer rates are levied on properties connected to or abutting a sewer, with a minimum annual charge of \$16. Current scales of rates in the Adelaide Drainage Area vary from 6½ per cent to 10 per cent of assessed annual property values; the higher rates being charged in Sub Areas where costs of construction or operation are abnormal.

Country charges for sewer connections are the same as for the metropolitan area. Current sewer rates in all country towns are 10 per cent of assessed annual property values, with a minimum annual charge of \$16.

Rates levied by local government authorities on properties connected to common effluent schemes are usually proportionate to the costs and interest charges involved in the schemes.

8.2 IRRIGATION AND DRAINAGE

IRRIGATION

The development of irrigation areas in South Australia has been carried out by both Government authorities and private interests. Since 1930 the administrative authority for Government irrigation areas has been the Department of Lands with the Engineering and Water Supply Department the constructing authority for the Minister of Irrigation. A more detailed historical discussion of irrigation in South Australia was included on pages 314-6 of the *South Australian Year Book* 1970.

Irrigation areas are confined almost exclusively to the Murray Valley and can be classified into two groups; highland areas requiring the pumping of water, and reclaimed lands watered by gravitation. During 1971-72, 364,065 acre

feet (approximately 98,764 million gallons) of water was diverted from the River Murray in South Australia for irrigation purposes. Details of the production of these areas are given in Part 9, pages 377-8.

Highland Areas

With the major exception of the Mypolonga Irrigation Area, highland irrigation is located in the hot and dry zone along the River Murray between Morgan and the Victorian border.

These areas are largely devoted to vineyards and citrus and stone fruit orchards which are irrigated by water pumped from the river in open concrete-lined channels or pipes. Many of the recently developed areas use a system of overhead or under-tree sprays for watering the blocks in preference to the traditional surface reticulation. Sprays are also being used to increase the acreage in a number of the older areas by bringing in land too high for reticulated watering. Landholders on Government controlled areas and on private lands constituted under special Parliamentary Acts pay an annual rate for routine irrigation and a charge is made for additional water, except at Loxton and Cooltong where water is supplied on a measurement basis.

Irrigation systems must also provide for the removal of surplus water which accumulates beneath the surface of the land. Blocks have internal drainage systems either leading to shafts and bores or to comprehensive drainage systems which convey the water to evaporation basins.

Reclaimed Areas

On the lower Murray between Mannum and Wellington is a series of swamp and overflow areas which have been reclaimed by Government and private agencies.

Although these reclaimed areas contain some market gardens they are devoted principally to the growing of green fodder for dairy herds and sheep flocks. These lands are watered by gravitation and surplus water is run into main drains from which it is pumped back into the river. Approximately 1,835 acres 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 625 acres at Mypolonga used for horticultural crops.

Irrigation Areas, South Australia

Area Irrigated	1967-68	1968-69	1969-70	1970-71	1971-72
	Acres				
Government controlled:					
War Service schemes (1939-45 War)	8,069	8,107	8,222	8,222	8,272
Other.....	31,036	31,292	31,268	32,471	30,846
Non-Government:					
Trusts, boards and association areas.....	17,784	19,479	19,445	19,445	19,400
Private schemes.....	42,491	47,594	47,414	46,605	46,500

Further details of the 39,118 acres irrigated in Government-controlled schemes in the year 1971-72 are shown in the following table.

Government Controlled Irrigation Areas, South Australia

Area Irrigated	Highland Areas		Reclaimed Areas	Total
	Surface Reticulation	Spray Irrigation		
	Acres			
War Service schemes (1939-45 War)	4,194	4,078	—	8,272
Other.....	17,967	3,896	8,983	30,846
Total	22,161	7,974	8,983	39,118

THE RIVER MURRAY AGREEMENT

In early years there were great variations in the flows of the River Murray and its tributaries resulting from extremely variable rainfall in the catchment areas. The resulting droughts and floods were a considerable impediment to the proper functioning of the irrigation areas.

In 1915 the Commonwealth River Murray Waters Act was passed ratifying and providing for the carrying out of an agreement entered into between the Parliaments of the Commonwealth and the States of New South Wales, Victoria and South Australia. The River Murray Agreement provides that the minimum quantity of water to be allowed to be passed for supply to South Australia in each year shall be sufficient to maintain certain specified monthly flows in the lower river. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation.

Works, to regulate the flow and control of the level of the River Murray, have included the construction of a number of storage areas and the erection of a series of locks and weirs. By 1928 Lake Victoria, in New South Wales adjacent to the South Australian border, had been converted into a large storage area supplying water for the South Australian irrigation settlements. Between 1922 and 1930 six locks and weirs were erected between Blanchetown and the Victorian border. In addition, five barrages were placed at the Murray mouth to prevent the ingress of salt water from the sea and to maintain a higher level in the River for the use of the reclaimed areas. These barrages were completed in 1940.

The major storage area, the Hume Reservoir above Albury, was completed in 1936. Further works, the last being completed in 1961, have doubled the original capacity to 2.5 million acre feet. Except for that held in various lock pools, no water from the Murray is stored in South Australia. In 1962 agreement was reached for the construction of a reservoir of approximately 5 million acre feet and covering 503 square miles with its dam at Chowilla, just inside the State border, but early in 1969 the River Murray Commission recommended that an alternative dam be built at Dartmouth in Victoria before further consideration be given to the completion of the Chowilla dam. Legislation ratifying an agreement based on the Commission's recommendation was passed by the Commonwealth, New South Wales and Victorian Parliaments in 1970 and a Act ratifying the agreement was passed in the South Australian Parliament in August 1971.

DRAINAGE

With the exception of the reclaimed areas along the lower Murray, already discussed in the previous section, and certain works associated with metropolitan development, drainage schemes in South Australia are confined to the south-east corner of the State. The topography of this area reveals a series of fertile valleys or flats interspersed by low infertile ranges running parallel to the sea and thus preventing the natural drainage of the land. In consequence considerable sums of money have been expended in constructing drainage schemes to reclaim these areas.

The first major drainage scheme was commenced in 1863 and completed in 1885. This scheme, the Millicent Drainage System, reclaimed 100,000 acres of land at a cost of \$300,000, this cost subsequently being included in the land allotment price. The system is maintained by the Millicent Drainage Trust from rates levied on landholders.

Following this early success the Government undertook the construction of further drains during the next sixty years. These drains were constructed under three sets of conditions: *National Drains* were constructed at Government expense, the cost being absorbed in the price of the land when sold; *Petition Drains* were constructed on requests from landholders who agreed to repay the full cost to the Government over a period of forty-two years; *Scheme Act Drains*, commenced in 1908, provided for the Government and the landholders to share the cost, the landholders share being repayable over forty-two years. After the Scheme Act Drains had been completed it was found that the cost exceeded the benefit derived, and subsequently, following a royal commission, the landholders' liability was reduced.

The passing of the South-Eastern Drainage Act Amendment Act, 1948 marked a new stage in the development of south-eastern drainage. Previously attention had been devoted to the construction of a system of drains removing large quantities of water from general areas and providing above all for the rapid removal of floodwaters. By 1948, 430 miles of drains had been constructed at a capital cost of \$1,441,752. However, in 1948, with the establishment of the Western Division Drainage Scheme, emphasis was placed on a complete drainage programme as achieved by the earlier Millicent scheme. The Western Division Drainage Scheme, which aimed at the comprehensive drainage of 400,000 acres of land between the Millicent and Kingston districts, has now been completed. In 1960 the Eastern Division Drainage Scheme, for the drainage of 727,000 acres of flats lying between Kalangadoo and 40 miles north of Lucindale, was commenced and construction on this scheme was completed in November 1969.

Under the schemes introduced since 1948 landholders were required to repay an amount based on a 'betterment assessment' of their property. As in the other schemes this amount was repayable over forty-two years. The 1971 amendment to the South-Eastern Drainage Act extinguished the liability of landholders to make a capital contribution in respect to existing drainage construction.

At 30 June 1971, more than 800 miles of drains (excluding the Millicent scheme) had been constructed at a capital cost of \$18,164,000. These drains vary considerably in size from only a few feet to over 200 feet bottom width.

In addition to new construction, continual attention must be paid to the prevention of silting and of weed growth and to the upkeep of over 500 bridges. Rates are levied on landholders to meet the costs of such maintenance. The closer settlement resulting from the drainage schemes has, in many areas, necessitated the construction of new bridges.

The system is administered by the South-Eastern Drainage Board under the South-Eastern Drainage Act, 1931-1971.

8.3 ROADS

Roads in South Australia are officially classified either as main roads, being those proclaimed as such under the provisions of the Highways Act, or district roads. Main and district roads within local government areas are vested in the various local governing authorities who primarily are responsible for construction and maintenance works within their respective areas. However, there is provision in the Highways Act for the Commissioner of Highways to construct, reconstruct, and maintain important roads after due notice has been given, and in practice most of the roads carrying heavy traffic are constructed and maintained by the Highways Department. In areas outside the control of local government authorities road works are carried out by the Highways Department.

Funds used for road works in South Australia are derived from four main sources, namely the net proceeds of fees imposed by the State Government for the registration of motor vehicles and the licensing of drivers, grants from the Commonwealth Government, charges imposed under the Road Maintenance (Contribution) Act and rates levied by local government authorities.

Commonwealth funds are provided under the Commonwealth Aid Roads Act for construction and maintenance of specific categories of urban and rural roads. Portion of this money is spent directly by the Highways Department and allocations are made to local authorities. State funds also are made available to local government authorities for construction and maintenance works. In approved cases the Highways Department assists local authorities (by way of interest-free loans) to purchase road-making equipment. Some local government authorities, having adequate resources of manpower and equipment, undertake specific work on behalf of, and financed by, the Highways Department. The Department provides technical advice when requested by a local government authority.

The following table shows the length, as advised by the Highways Department, of main and district roads, customarily used by the public, according to type of surface at 30 June 1972.

**Main and District Roads: Type of Surface, South Australia
at 30 June 1972**

Type of Surface	Main Roads	District Roads	Total
	Miles		
Bitumen or concrete	4,851	6,295	11,146
Gravel or crushed stone.....	3,094	10,370	13,464
Formed only	173	15,019	15,192
Unformed.....	38	23,035	23,073
Total	8,156	54,719	62,875

The unformed roads shown in the table include tracks in localities outside of local government areas, mainly routes to and between station homesteads and not on land reserved for roads.

In closely settled areas, particularly in the metropolitan area and country towns, most roads are surfaced with bituminous concrete or by bituminous penetration of a macadam base. In rural districts where traffic is light, roads may be

formed of natural materials or be only lightly gravelled but the more important country roads are constructed of gravel or crushed rock and are improved, as traffic warrants, by the addition of a bituminous seal.

A continuous programme of upgrading the State's road network is carried out by reconstructing and widening arterial roads in the metropolitan area and the construction and sealing of important rural roads. Extensive road construction also is carried out in new housing development areas.

A detailed historical survey of roads in South Australia was included on pages 257-9 of the *South Australian Year Book* 1966.

Road Needs Survey

During 1968 the National Association of Australian State Road Authorities (NAASRA) in association with the Commonwealth Bureau of Roads conducted a survey of 'road needs' throughout Australia, covering the backlog of work existing to June 1969 and additional work necessary for each of the five-year periods ending in June 1974 and 1979. A summary table of the road needs determined by the Australian Road Needs Survey 1969-79 was included on page 321 of the *South Australian Year Book* 1972, and other information was included in earlier issues.

A similar survey designated as the Australian Roads Survey 1969-74 is proceeding as a joint undertaking by NAASRA and the Commonwealth Bureau of Roads in order to assess the effectiveness of the current Commonwealth Aid Roads legislation and to form the basis for the allocation of Commonwealth Aid Roads grants after the expiry of the present legislation in 1974.

An inventory of the existing road network has been completed and an analysis of deficient roads and structures is proceeding.

FUTURE DEVELOPMENT

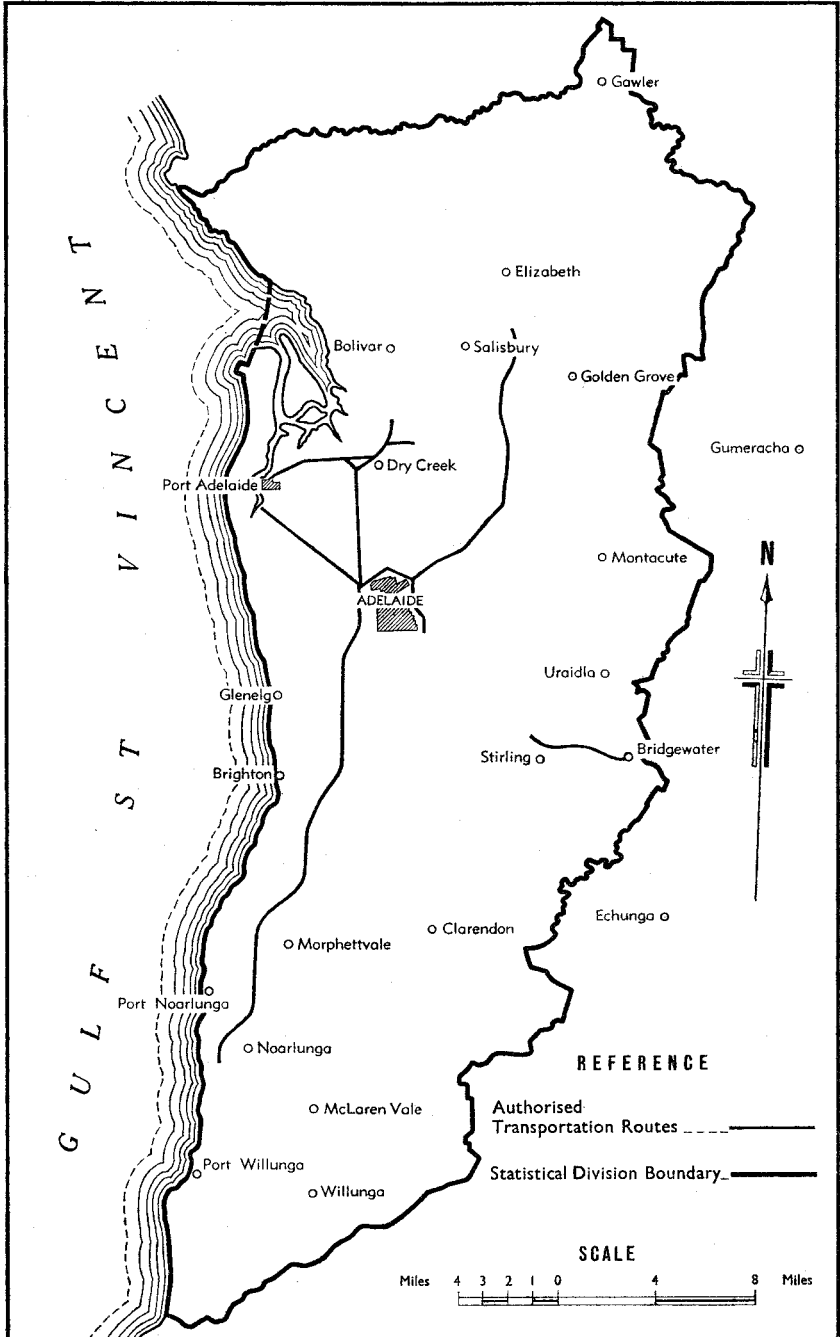
The *South Australian Year Book* 1970, on pages 319-25, contained some details of the reports of two major studies: these were the reports of the Town Planning Committee of South Australia (Metropolitan Development Plan), submitted in 1962, and the Metropolitan Adelaide Transportation Study (MATS) report, released in 1968. In June 1970, the Government undertook to review the MATS proposals with particular reference to public transport. The resultant Adelaide Transportation Report 1970 or 'Breuning Report', was discussed in the *South Australian Year Book* 1971, on pages 317-8.

Some extensive and important road works have proceeded, and will continue, along lines recommended in the earlier reports. These include major arterial road and street improvements and the construction of a freeway from Crafers to Verdun which was completed in May 1972. Ultimately, as part of the progressive improvement of the main route to Melbourne, it is intended to extend the South East Freeway from Verdun to the outskirts of Murray Bridge: this project is tentatively scheduled for completion by 1979. Also as part of the development of this route a new bridge at Swanport, south of Murray Bridge, and an associated approach road are planned for completion in 1975.

Supplementary Metropolitan Development Plan

In November 1971 the Government authorised a supplement to the Metropolitan Development Plan of 1962. The effect of the Supplementary Development Plan is firstly to amend the freeway proposals contained in the Metropolitan Development Plan by deleting some sections and varying others, and secondly to recognise that freeway rights-of-way may eventually be used for newer forms of vehicular transport.

METROPOLITAN ADELAIDE AUTHORISED TRANSPORTATION ROUTES



The Metropolitan Development Plan and the Supplementary Development Plan, with their reports, must be read together to obtain a complete picture of the proposed routes which appear as 'Authorised Transportation Routes' on the map on page 334.

The combined proposals comprise a north-south route west of the City of Adelaide extending from near Dry Creek in the north to Noarlunga in the south; routes serving Port Adelaide north-west along Port Road and west from The Levels; a route north-east toward Modbury along the River Torrens valley and north to Hillbank; and necessary connections around the City of Adelaide.

The Metropolitan Development Plan report also draws attention to the likely future need for new routes to the east, south-east and south of the City of Adelaide.

A further Supplementary Development Plan is being prepared to revise the system of arterial and scenic roads in the metropolitan area.

RESEARCH

Because of the great area of South Australia and the wide variety of climatic and soil conditions, special sections of the Highways Department are engaged in constant investigation and testing of soils, materials, and construction methods to ensure that a high standard of road construction is maintained and that methods are adapted to the needs of particular areas.

South Australia contributes to Australian road development through its active participation in the National Association of Australian State Road Authorities. Specialist committees of the association deal with bridge design, materials research, traffic engineering, bituminous pavements, plant and equipment, and long-term planning. The association in 1960 established the Australian Road Research Board whose functions include the co-ordination and organisation of road research.

ROAD FINANCE

As indicated earlier, the four main sources of road finance are:

- (1) State motor vehicle taxation and drivers licence fees;
- (2) Commonwealth grants;
- (3) charges imposed under the Road Maintenance (Contribution) Act;
- (4) property rates and other levies imposed by municipal and district councils.

Finance received from the first three sources is controlled by the Commissioner of Highways. The Highways Act provides that fees received for vehicle registrations and drivers licences, less cost of collection, should be credited to the Highways Fund. The Fund is credited also with interest on and repayments of advances made to local government authorities for roadworks and drainage schemes and for the purchase of machinery; special contributions from the Municipal Tramways Trust under the Highways Act; contributions from local government authorities towards the cost of lighting roads; hawkers licence fees collected under the Hawkers Act, 1934-1960, and other minor sundry receipts. Receipts under the Road Maintenance (Contribution) Act are paid into a special account at the State Treasury and applied only on maintenance of public roads.

PHYSICAL DEVELOPMENT

Highways Department, South Australia

Receipts and Payments

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
RECEIPTS (\$'000)					
Motor vehicle registrations, licences, fees, fines, etc.	11,856	12,534	13,250	14,212	18,000
Road Maintenance Charges	2,324	2,557	2,839	2,958	3,287
Commonwealth Aid Roads Grants:					
For rural roads	7,478	9,200	9,950	} 23,500	25,500
For other roads	10,906	10,232	11,050		
Loans from State Government	—	—	1,000	—	—
Repayments of, and interest on, advances to local authorities	1,196	1,044	1,002	917	629
Other	174	200	321	147	522
Total	33,934	35,767	39,412	41,733	47,938
PAYMENTS (\$'000)					
Construction and reconstruction of roads, bridges, etc.	20,799	23,837	30,200	27,056	32,049
Maintenance of roads, bridges, etc.	7,128	8,211	10,271	11,575	13,303
Interest, debt redemption, etc.	518	522	544	556	580
Advances to local authorities	1,386	1,253	402	251	305
Net purchases of land, buildings, plant, equipment, materials, etc.	2,238	Cr.312	451	Cr. 62	1,484
Other (a)	(b)868	206	130	921	2,332
Total	32,936	33,718	41,998	40,298	50,053

(a) This item includes provision for leave and for plant overhauls which may be a negative figure in some years.

(b) Includes \$240,000 representing repayment to revenue under Section 31 (a) of the Highways Act.

The \$25.5 million received in Commonwealth Aid Roads Grants for 1971-72 consisted of a principal grant of \$23.15 million, of which \$11.50 million was for urban roads and \$11.65 million for rural roads; a supplementary grant of \$2 million, available for any class of roads; and \$350,000 for planning and research.

The Local Government Act provides for grants-in-aid to be paid from the Highways Fund to local government authorities for expenditure on roads, other than main roads, and related works.

From 1923 to 1930 Commonwealth road grants were conditional upon *pro rata* expenditure by the States and work was subject to Commonwealth inspection. From 1931 to 1958 the total amount of Commonwealth Aid Road Grants to the States was determined as a proportion, varied from time to time, of Commonwealth petrol taxation. From 1959 these grants have borne no direct relationship to any particular item of revenue.

The South Australian share of Commonwealth Aid Roads Grants for the five years to June 1969 was approximately \$86 million. This represented approximately 11.5 per cent of the total grants which were distributed as follows: 5 per cent to Tasmania and the remaining 95 per cent to the mainland States; one-third according to population, one-third according to area and one-third proportionately to the number of motor vehicles registered. A portion of these grants was subject to matching expenditure by the States.

Commonwealth Aid Roads Grants for the five years 1969-70 to 1973-74 were announced after the Premiers' Conference in March 1969. A basic sum of \$1,200 million was allocated to the various States according to a formula which

took into account both the formula applied in the preceding five years and principles of distribution recommended by the Commonwealth Bureau of Roads after consideration of results of the Road Needs Survey already mentioned. A supplementary amount slightly exceeding \$52 million is to be shared by South Australia, Western Australia and Tasmania to ensure that all States received grants at least 50 per cent higher than for the preceding five years. However, the \$129 million allocated to South Australia for the five years to 1973-74 represents only 10.3 per cent of total grants compared with 11.5 per cent of grants for the preceding five years.

Conditions attaching to these grants relate to the expenditure of specified sums on different classes of roads in particular areas, with a general proviso that State expenditure on roads shall increase proportionately to the increase in numbers of motor vehicles registered.

Exact figures are not available for total expenditure in South Australia on the construction, reconstruction, and maintenance of roads, streets, bridges, ferries, and associated works. During five recent years approximate total expenditure by State and local government authorities has been: 1967-68, \$47 million; 1968-69, \$48 million; 1969-70, \$57 million; 1970-71, \$57 million; and 1971-72, \$66 million. These figures include the cost of land purchased for new roads including future freeways and for road widening, and charges for depreciation of plant and machinery. Local government figures used to derive the totals include expenditure which is subsequently recouped from the public and expenditure on footpath maintenance and stormwater drainage.

The biggest single element of roads expenditure omitted from the above figures is the cost of work carried out under the provisions of the Planning and Development Act, 1966-1972 which requires persons and authorities (including the South Australian Housing Trust) who subdivide land for housing to provide roads to a certain specification. The actual work is sometimes performed by local government authorities at the expense of the subdividers: in such cases the costs of construction are included in the figures above but in most cases these roads are constructed by private contractors or by direct employees of the subdivider and few details are available.

8.4 RAILWAYS

Ownership and Control

Railway systems in South Australia are operated by both the State and Commonwealth Governments.

In 1851 a 'Board of Undertakers' was appointed in connection with the construction of the Adelaide to Port Adelaide railway and in 1856 a Board of Railways Commissioners was appointed to control South Australian railway operations. This Board was abolished in 1859 and from then until 1887 control was vested in the Commissioner of Public Works. The South Australian Railways Commissioners Act of 1887 gave almost complete authority for management and administration to three Railways Commissioners, reserving (as in the past) financial control to Parliament. The powers of the three Commissioners passed to one Commissioner in 1892. The present South Australian Railways Commissioners Act, 1936-1971, under which the Commissioner is appointed for a period of seven years, incorporates many of the provisions of the 1887 Act, including those for financial control.

Management of all Commonwealth Railways is vested in a Commonwealth Railways Commissioner.

In South Australia the only private railways open to general traffic are the lines owned by the Broken Hill Proprietary Co. Ltd: from Iron Knob and Iron Baron to Whyalla (51 miles) used for the carriage of iron ore; and from Coffin Bay to Port Lincoln (25 miles) used for the carriage of limestone.

Historical Summary

Much of the basic work of establishing the railway network which serves South Australia was concentrated in two comparatively brief periods, from about 1877 to 1887 when approximately 1,200 miles of lines were constructed, and from 1910 to 1917 when about 1,500 miles were added. A number of scattered lines totalling approximately 300 miles had been constructed before 1877.

During the eleven years to 1887 rail communication with the eastern States was established; the rich ore deposits at Broken Hill were tapped; a line was built through northern pastoral areas toward the Northern Territory; and railways from outports to their hinterlands (predominantly agricultural but more pastoral in the South East) were extended and linked with arterial services centred on Adelaide. During the following twenty-two years only 200 miles of new lines were opened. Then in an eight-year period railways were constructed to facilitate the agricultural development of Eyre Peninsula and the Murray Mallee lands, and the Commonwealth Railways built a line to Western Australia.

Since 1917 route mileage open has increased by about 600 miles only. The emphasis during recent years has been upon conversion of 3 feet 6 inch lines either to 4 feet 8½ inch directly or to 5 feet 3 inch as an interim to possible ultimate conversion to the standard gauge.

The table which follows shows route mileage of railways open for traffic for every tenth year from 1856 and for each of the last five years.

**State and Commonwealth Government Railways
Gauges, Route-mileage Open in South Australia**

Date	5ft 3in Gauge	4ft 8½in Gauge	3ft 6in Gauge	Total (a)
Miles				
31 December:				
1856.....	7	—	—	7
1866.....	56	—	—	56
1876.....	133	—	137	270
1886.....	495	—	716	1,211
1896.....	493	—	1,229	1,722
1906.....	594	—	1,238	1,832
30 June:				
1916.....	977	361	1,688	3,026
1926.....	1,238	598	1,739	3,575
1936.....	1,451	598	1,676	3,725
1946.....	1,480	654	1,665	3,799
1956.....	1,622	654	1,540	3,816
1966.....	1,649	871	1,256	3,776
1968.....	1,651	870	1,253	3,774
1969.....	1,630	870	1,253	3,753
1970.....	1,601	(b) 1,087	1,022	3,711
1971.....	1,570	(b) 1,087	1,022	3,680
1972.....	1,570	(b) 1,087	1,022	3,680

(a) Excluding private railways.

(b) Excludes 29 miles of line in New South Wales between Cockburn and Broken Hill owned and operated by South Australian Railways.

Mileage of the Goolwa-Port Elliot line which was completed in 1854, and its extensions to Victor Harbor (1864) and Strathalbyn (1869), has been excluded from the above table for years before 1884-85 when the route was converted from horse to locomotive traction.

Current Operations

Only a small portion of the Adelaide metropolitan area is served by railways, the main trunk routes passing through northern and southern suburbs. The line to Willunga serves south-western suburbs but is closed to traffic beyond Hallett Cove and the track is being removed. On a new alignment a track has been constructed from Hallett Cove to Port Stanvac: a further extension to Christie Downs is planned. This line will serve the rapidly expanding industrial and housing development along the coast south of Adelaide. The Port Adelaide line, its extensions to Semaphore and Outer Harbor, the branch line to Grange, and spur lines to industrial establishments provide better coverage in north-western suburbs than is achieved elsewhere in Adelaide. For many years two railways linked Adelaide and Glenelg: in 1929 the route *via* North Terrace and Richmond was closed and the King William Street route was converted to its present use as a tramway.

Lines operated by the Commonwealth Government in South Australia at 30 June 1972 were: 3 feet 6 inch gauge from Stirling North to Hawker, 61 miles, and Marree to the Northern Territory Border, 364 miles; and 4 feet 8½ inch gauge from Port Pirie Junction to the Western Australian Border, 653 miles, and Stirling North to Marree, 217 miles.

A standard gauge line between Whyalla and Port Augusta, financed and operated by the Commonwealth, was opened for traffic on 6 October 1972. The 47-mile line permits uninterrupted movement of steel from Whyalla steel works to other States.

The Commonwealth Government is considering the construction of a standard gauge line between Tarcoola in South Australia and Alice Springs in the Northern Territory to replace the existing line to Alice Springs, which is subject to periodic flooding and other damage.

A more detailed historical survey was included on pages 263-6 of the *South Australian Year Book* 1966.

Standardisation of Rail Gauges

The existence in South Australia of 3 feet 6 inch, 4 feet 8½ inch, and 5 feet 3 inch systems has already been noted. For many years railway administrators have been greatly concerned about the increased costs and decreased efficiency associated with the transhipment of goods and passengers and with the provision, maintenance and operation of different sets of rolling stock. During recent years with the rapid development of road and air transport facilities there has been increasing pressure for standardisation of rail gauges in the interests of efficiency and economy of operation of transport services as a whole.

As part of an agreement enacted in 1949 to convert much of the South Australian Railways system to standard gauge, in 1963 the Commonwealth Government decided to proceed with standardisation of the Port Pirie-Broken Hill Railway. During 1967 agreement was reached between the Governments of the Commonwealth, New South Wales and South Australia to link Cockburn and Broken Hill along a new line of 30 miles instead of converting the 35 miles previously owned and operated by the Silverton Tramway Company. Conversion of the Port Pirie-Cockburn section was completed during 1969, and the new

Cockburn-Broken Hill line, owned and operated by the South Australian Railways, was completed in January 1970. The first revenue-earning passenger train to use the coast-to-coast standard gauge line left Sydney on 2 March 1970 for the 2,461 mile run to Perth.

With the opening of the Port Pirie-Broken Hill standard gauge railway and the extension of the broad gauge from Terowie to Peterborough, the South Australian Railways now operate two bogie exchange depots, one at Port Pirie and the other at Peterborough.

Before the financial provisions of the railways standardisation agreement can become effective in relation to any specific project Commonwealth Government acceptance of that project is necessary. Early in August 1969 it was announced that the Commonwealth and South Australian Governments had agreed on the terms of reference for a feasibility study on standardisation of the Adelaide-Port Pirie line and the carrying of traffic on existing narrow gauge lines affected by standardisation. Consultants were engaged to carry out the study and in March 1970 they submitted a report to the Commonwealth Government.

The State Government submitted alternative proposals expected to provide a more comprehensive scheme of standardisation and offering greater operational savings at a cost not greater than that estimated by the consultants. The scheme provides for the conversion of the existing line from Snowtown to Wallaroo for mixed gauge operation, the construction of a new 120 mile standard gauge line linking Adelaide with the east-west standard gauge system through Crystal Brook and the closure of the branch line from Bumbunga to Lochiel. Standard gauge connections would be provided to Mile End, Dry Creek, Port Adelaide, Woodville, Pooraka, Salisbury, General Motors Holden at Elizabeth, and to Islington. The project, estimated to cost about \$50 million, would be financed by the Commonwealth Government on a 70 per cent grant and a 30 per cent loan basis.

A liaison committee comprising both Commonwealth and State officers has been working in conjunction with consultants in the preparation of a master plan for connecting Adelaide with the east-west standard gauge system. It is anticipated that the master plan will be ready for submission during 1973.

8.5 HARBOURS AND AERODROMES

HARBOURS

The State of South Australia, including Kangaroo Island, has a coastline of more than 2,400 miles. There are two large indentations, Gulf St Vincent and Spencer Gulf, which have many harbours for shipping.

Of many seaports in South Australia, at present only twenty are used by commercial shipping: thirteen of these have State-owned wharves or jetties and seven have privately-owned wharves or jetties. In addition the State maintains jetties or wharves for promenade and fishing purposes at forty-five ports that are no longer used by commercial shipping and sixteen jetties are leased to district councils.

The Broken Hill Proprietary Co. Ltd owns and operates bulk handling facilities at Ardrossan, Rapid Bay, Whyalla and Proper Bay, while the Colonial Sugar Refining Co. Ltd owns and operates a bulk loading installation at Ballast Head, Kangaroo Island. The Commonwealth Railways operates the wharf at Port Augusta on behalf of the Commonwealth Government, and the Port Stanvac oil terminal is owned by Petroleum Refineries (Aust.) Pty Ltd.

There are seven deep-sea ports operated by the State, namely Port Adelaide, Port Pirie, Port Lincoln, Thevenard, Wallaroo, Edithburgh and Port Giles while overseas vessels are also accommodated at Port Stanvac, Port Augusta, Whyalla and Ardrossan.

CONTROL OF HARBOURS

The control of State-owned harbours (including the River Murray) is vested in the Minister of Marine; he is responsible for navigation within harbours and all harbour facilities including lights, buoys, beacons, bulk loading plants and fishing boat accommodation. Relevant legislation includes the Harbors Act, 1936-1971, the Marine Act, 1936-1970 and the Fisheries Act, 1971.

In 1971-72 the Department of Marine and Harbors handled 7,390,168 tons of cargo (including general cargo at private ports) or approximately 41 per cent of the total tonnage of 18,208,385 tons passing through all the ports in South Australia, the balance being handled independently at the privately owned wharves.

Department of Marine and Harbors Indebtedness, Revenue and Expenditure

Year	Loan Fund Indebtedness	Revenue	Expenditure from Revenue			Surplus (+) or Deficit (-)
			Working Expenses	Interest	Total	
			\$'000			
1967-68	45,478	6,418	4,196	1,869	6,066	+352
1968-69	47,614	6,653	4,365	1,957	6,322	+331
1969-70	50,736	7,282	4,265	2,176	6,442	+840
1970-71	55,081	7,628	5,056	2,431	7,487	+141
1971-72	57,824	7,611	5,346	2,796	8,142	-530

HISTORICAL

For a detailed description of development in the nineteenth century see pages 270-1 of the *South Australian Year Book* 1966.

Trend of Development

As shipping increased through growth in trade many wharves and jetties were strengthened or replaced by better structures. To keep most harbours open for larger vessels it has been necessary to deepen and widen navigation channels, deepen existing berths and extend jetties into deeper water. A recent example of this type of project was the redevelopment of Thevenard harbour, completed in 1972, which entailed the dredging of a deeper channel and the reconstruction of the jetty so that bulk carriers twice the size of those previously accommodated could be fully loaded.

Since the establishment of new soldier settlements in the 1950s, shipping to and from Kangaroo Island has increased. Additional harbour facilities were made available with the provision of a trailership berth at Kingscote for the roll-on roll-off vessel m.v. *Troubridge* which went into service in November 1961. Trailership berths were also built at Port Adelaide and Port Lincoln.

A change in the pattern of intrastate shipping has occurred with the provision of bulk handling facilities for grain at major ports progressively since 1952. These facilities are now available at Port Adelaide, Port Pirie, Wallaroo, Port Lincoln,

Thevenard and Port Giles, and also at Ardrossan under agreement with the owner of the private wharf. Grain is railed or trucked overland to terminal silos and loaded aboard ocean-going vessels by means of conveyors, so eliminating ketch trade from the smaller ports. Competition from intrastate road and rail transport has affected the larger ports as well, so that very little general cargo is carried between ports in this State.

To decrease the delay in turn-around of vessels and improve the handling of shipping cargo, port facilities in the major harbours have been or are being improved by such measures as the reconstruction of wharves, deepening of berths and channels, installation of cranes and increasing storage capacity.

The construction of boat havens for fishing and pleasure craft, and the provision of slipways at several ports throughout the State are other aspects of recent development.

Future developments at ports other than Adelaide are likely to be concerned primarily with bulk trades and the increasing size of bulk carriers. For example, the installation of bulk handling facilities at Port Lincoln, expected to cost \$7.5 million and to be completed by 1975, has commenced. The project involves extension of an existing jetty to provide two outer berths for loading grain ships and an inner berth for unloading phosphate-rock carriers: the grain berths will cater at first for ships up to 60,000 tons but could be modified for ships of 100,000 tons, while the phosphate-rock berth will cater for ships up to 35,000 tons.

Development of Port Adelaide

The Greater Port Adelaide Plan, details of which were released in 1949, included proposals for twenty projects for port development over the ensuing 50 years. Among those projects were:

- (1) the improvement and extension of wharves and allied cargo facilities;
- (2) the deepening, and widening of the shipping channels and provision of larger swinging basins;
- (3) the reclamation and development of low-lying land adjacent to the port for the creation of industrial, commercial and dock estates.

Some of these projects have been completed while others are still in progress. In April 1964 approval was given for a start on a scheme to widen and deepen the Port River at a cost of \$6.6 million. Under this plan, the Port River has been deepened to 9 metres at Low Water and a swinging basin of 320 metres diameter has been provided in the inner harbour. Currently the river channel is being widened to a minimum width of 150 metres. The material dredged in this operation is being used to reclaim part of the 800 hectares of low-lying land intended to be used for industrial and commercial sites and for port extensions.

The advent of containerised cargo has affected only Port Adelaide as other ports in the State do not handle a sufficient quantity of cargo that is suitable for large containers. Although Port Adelaide has not yet been selected as a terminal port by any of the container ship operators, planning is proceeding on the assumption that it will fulfil such a role in the future. As a result 160 hectares of land are being reclaimed at Pelican Point near the outer harbour where it will be possible to provide up to 2,000 metres of berth length with a depth of 14 metres Low Water if necessary. Work has already started on the construction of one berth on this waterfront for use by large container ships and roll-on roll-off vessels.

Two container depots have been built by private enterprise in the dock industrial estate half a mile from the inner harbour waterfront and offer acceptance, forwarding, packing and unpacking facilities for international and interstate containers and other unit loads: to facilitate shipment of wool in containers a large wool store and a high density wool dumping centre have been established adjacent to these depots.

An interstate roll-on roll-off terminal in No. 3 Dock was opened early in 1971 and later in the year the facilities were extended to serve larger roll-on roll-off vessels engaged in overseas trade. A berth in No. 1 Dock has been modified to provide a reinforced concrete pad for the stern-loading type of vessel to operate between Port Adelaide and ports in Tasmania. Current developments include the provision of a steel handling berth to accommodate roll-on roll-off vessels and modifications to an outer harbour berth to serve larger overseas roll-on roll-off vessels.

A modern two-storey passenger terminal for overseas vessels is nearing completion at one of the outer harbour berths.

TIDES AND WATER DEPTH

Tides—the daily ebb and flow of the waters of the ocean—are brought about by the gravitational effect of the sun and moon. Spring and neap tides are associated with phases of the moon, *i.e.* spring tides with the new moon and full moon, and neap tides with the first quarter and last quarter of the moon.

All around the Australian coast there is a well-marked 'diurnal inequality'; that is, the forenoon and afternoon tides may differ considerably in height. The mean tide rises in the following table are shown as higher high water and lower high water, rather than high water springs and neaps. This method of measuring tides is used for the majority of Australian ports.

Tides and Water Depths: South Australian Ports, 1 January 1973

Port	Maximum Depth below Low Water Datum (a)	Tides		
		At	Mean Rise	
			Higher High Water	Lower High Water
Port Adelaide:	Metres		Metres	Metres
Outer harbour;				
Channel	10.06	Wharf	2.41	1.96
Wharf	10.66			
Inner harbour;				
Channel	9.14	Wharf	2.44	1.98
Wharf	10.66			
Ardrossan:				
Channel	(b)	Jetty	2.69	2.13
Jetty—BHP	8.23			
Port Augusta:				
Channel	4.88	Wharf	2.79	2.24
Wharves	6.10			

Tides and Water Depths: South Australian Ports, 1 January 1973 (continued)

Port	Maximum Depth below Low Water Datum (a)	Tides		
		At	Mean Rise	
			Higher High Water	Lower High Water
	Metres		Metres	Metres
Port Giles:				
Channel	(b)	Jetty	1.93	1.50
Jetty	11.58			
Port Lincoln:				
Channel	(c)	Jetty	1.50	1.07
Wharf (Bulk Loading)	9.75			
Port Pirie:				
Channel	6.40	Wharf	2.54	1.80
Wharves	8.23			
Port Stanvac:				
Channel	(b)	Wharf	1.85	1.40
Wharf	10.66			
Proper Bay (BHP):				
Channel	9.14	Jetty	1.50	1.07
Wharf	10.36			
Thevenard:				
Channel	8.23	Jetty	1.52	1.09
Wharf	8.23			
Wallaroo:				
Channel	8.46	Jetty	1.47	0.89
Wharf	9.45			
Whyalla (BHP):				
Inner harbour;				
Channel	7.32	Jetty and	2.46	1.83
Wharf	8.54	Wharf		
Outer harbour;				
Channel—ore jetty (No. 2) approach	10.66	Jetty and	2.46	1.83
Ore jetty (No. 2)	10.97	Wharf		

(a) The depth shown against wharves is the greatest at present available and may be found at one berth only at the wharf or jetty concerned.

(b) No approach channel. (c) Deep water gradually shoaling to depth at wharf.

AERODROMES

There were twenty-nine civil aerodromes in South Australia at 30 June 1972 including nine owned and operated by the Commonwealth Government and twenty licensed aerodromes owned and operated by local authorities or private interests. In addition there are several authorised landing grounds which are fields prepared for the operation of aircraft but not open to public use. These fields meet Commonwealth Government specifications less exacting than those used in the development of government owned or licensed aerodromes.

Government and licensed aerodromes in South Australia are set out below.

<i>Government Owned</i>		
Adelaide	Leigh Creek	Parafield
Ceduna	Mount Gambier	Port Lincoln
Kingscote	Oodnadatta	Whyalla
<i>Licensed</i>		
Amata	Fregon	Naracoorte
Andamooka	Granite Downs	Port Pirie
Cleve	Innamincka	Renmark
Cordillo Downs	Kimba	Tieyon
Cowell	Millicent	Tintinara
De Rose Hill	Minnipa	Waikerie
Ernabella Mission	Mount Dare	

The main terminal in South Australia is the Adelaide Airport at West Beach, and although not an international airport it can be used by international aircraft when required. It is on the scheduled flights of interstate services from Sydney, Melbourne, Perth and Darwin and is the terminus of intrastate services. Since this airport was opened to commercial aircraft in February 1955, modern navigational aid systems and equipment (*e.g.* Australian designed visual approach slope guidance systems and long range radar) have been installed and various improvements to general airport facilities have been carried out.

Since the opening of the Adelaide Airport the aerodrome at Parafield, about eleven miles north of Adelaide, has been restricted principally to use by light aircraft.

Other aerodromes are situated near the larger towns *e.g.* Mount Gambier, Whyalla, Port Lincoln and Port Pirie. About half of the licensed aerodromes are on stations, missions, etc. in the northern part of the State.

In addition to the civil aerodromes there are two major aerodromes, one at Woomera controlled by the Department of Supply, through the Weapons Research Establishment, and the other at Salisbury (Edinburgh Airfield) which are used by aircraft associated with trials operations and by civil charter aircraft carrying passengers and freight. Edinburgh Airfield is also the base for an RAAF maritime squadron.

Control of Aerodromes

At a conference of Commonwealth Ministers and State Premiers in May 1920, it was agreed that the Commonwealth should introduce a Bill to give effect to the Convention for the Regulation of Air Navigation signed in Paris on 13 October 1919. The *Air Navigation Act* 1920, under which a Controller of Civil Aviation was appointed as head of the Civil Aviation Branch which came under the jurisdiction of the Department of Defence, had three main objects:

- (1) generally to regulate civil aviation activities in Australia;
- (2) to carry out the provisions of the Convention on Air Navigation signed in Paris;
- (3) to apply the principles of the Convention to domestic as well as international flying operations.

Regulations were drawn up under this Act to provide, *inter alia*, for the registration and periodic inspection of aircraft, licensing of aerodromes, examination and licensing of personnel engaged in flying and in upkeep of machines, control of aircraft movements, rules of the air, etc.

The South Australian Parliament passed the Commonwealth Powers (Air Navigation) Act, 1921 in which it referred to the Commonwealth powers to make regulations in connection with international and interstate air navigation. The Air Navigation Act, 1937 provided for the application of the Commonwealth Air Navigation Regulations to and in relation to air navigation within the State of South Australia and repealed the earlier Act.

The Commonwealth civil aviation legislation at present includes the *Air Navigation Act 1920-1971*, the *Australian National Airlines Act 1945-1970* and several other Acts, while the State legislation in South Australia includes the 1937 Act and the Civil Aviation (Carriers' Liability) Act, 1962-1971.

Since 1939 civil aviation administration has been a separate department under the Minister for Civil Aviation.

Historical

A description of early aerodromes in South Australia and development was included on pages 277-8 of the *South Australian Year Book 1966*: an article describing the first flight from England to Australia, in 1919, appeared on pages 334-5 of the *South Australian Year Book 1969*.

8.6 ELECTRICITY AND GAS

ELECTRICITY

In 1946 the Electricity Trust of South Australia, a semi-government authority, acquired the assets of the Adelaide Electric Supply Company and since that time the Trust has been responsible for electricity supply throughout most of the State. Generally local fuel supplies have replaced fuel imported from other States.

A more detailed description of the development of electricity supply was included on pages 278-81 of the *South Australian Year Book 1966*.

Power Generation

The Osborne 'A' station produced all of the requirements of the South Australian electricity net-work from 1923 until 1947 when the 'B' station commenced operations and the 'A' station was subsequently closed in 1968. At 30 June 1972 the remaining generating capacity at Osborne (excluding emergency generating plants) was 240,000 kilowatts.

A major decision by the Trust was the construction of the Thomas Playford Power Station at Port Augusta, designed to burn Leigh Creek coal exclusively. The 'A' section was completed in 1954 while the 'B' section was completed in 1964 to give a combined total generating capacity of 330,000 kilowatts.

Following the passing of the Electricity Trust of South Australia (Torrens Island Power Station) Act in 1962 work commenced on the construction of section 'A' of the Torrens Island Power Station. Section 'A' was completed in the first half of 1971 and comprises four 120,000 kilowatt turbo-generators with

associated boiler equipment. Work has begun on section 'B' and the erection of the first of four units, each with a 200,000 kilowatt turbo-generator and associated boiler equipment, commenced in 1973. The first unit is scheduled to commence generation in 1975.

Three gas turbo-generators each with a capacity of 52,000 kilowatts have been ordered by the Trust to meet high load demands of short duration, and will be installed in a station being constructed at Dry Creek. It is anticipated that the first of these units will be ready for production by the end of 1973.

The rapid growth of generating plant operated by the Electricity Trust of South Australia and the decline of plant operated by other producers since 1946 can be seen from the following table.

Electricity Generation, South Australia
Installed Capacity of Generating Plant in Power Stations at 30 June^(a)

Power Stations	1946	1964	1967	1970	1972
	Kilowatts				
Electricity Trust:					
Osborne	82,000	264,000	314,025	242,500	242,500
Port Augusta	—	332,700	332,700	332,700	332,700
Torrens Island	—	—	120,200	360,200	480,200
Mount Gambier	—	22,230	22,230	22,230	22,230
Port Lincoln	—	6,890	9,600	9,600	9,600
Total ETSA	82,000	625,820	798,755	967,230	1,087,230
Other government authorities ...	205	3,372	3,803	<i>n.a.</i>	<i>n.a.</i>
Local authorities	33,401	6,561	4,404	<i>n.a.</i>	<i>n.a.</i>
Private	29,855	33,109	4,818	<i>n.a.</i>	<i>n.a.</i>
Total	145,461	668,862	811,780	<i>n.a.</i>	<i>n.a.</i>

(a) Includes house plants used for emergency generation.

n.a. not available

Fuels

The development of the Leigh Creek coal field and the use of this coal as a source of power freed the Trust from its relative dependence upon New South Wales coal as a fuel source. Since commissioning, the Thomas Playford Power Station at Port Augusta has used this type of fuel exclusively.

The construction of oil refineries in Australia resulted in residual oil being supplied at a price competitive with coal and, over the years, the Osborne Power Station and, more recently, the Torrens Island Power Station, have used this type of fuel.

Natural gas discoveries in the north-eastern areas of South Australia and the construction of a natural gas pipeline to Adelaide has given the Trust a further source of indigenous fuel. The four 120,000 kilowatt boilers at Torrens Island have been equipped to use natural gas or oil, or both fuels simultaneously. The Trust is the only major electricity authority in Australia generating electricity from natural gas. Gas was first used for this purpose at Torrens Island in 1969.

Wood has also been used since the construction of the Mount Gambier and Nangwarry power stations. Its future as a fuel is, however, uncertain and depends on alternative uses of waste wood, particularly in the pulp industry.

The following table shows the quantities of various fuels consumed by the Electricity Trust in selected years since 1946 and illustrates the considerable movement in their relative importance.

Electricity Trust of South Australia, Fuels Consumed in Steam Power Stations

Year	N.S.W. Coal	Leigh Creek Coal	Oil	Wood	Coke	Natural Gas
	Tons					Millions of Therms
1945-46 (a)	190,889	15,101	—	—	—	—
1957-58	328,214	668,128	47,019	61,032	14,268	—
1963-64	72,253	1,566,986	110,165	166,735	1,818	—
1966-67	50,241	2,089,916	228,999	184,722	—	—
1969-70	3,376	2,121,194	294,454	182,697	—	53.75
1971-72	148	1,526,454	33,938	205,344	—	244.65

(a) Consumed by Adelaide Electric Supply Co.

Transmission and Distribution

The Electricity Trust was specifically charged with the responsibility of expanding its services into country areas. In the immediate post-war years shortages of materials somewhat handicapped the rate of extension; however, a vigorous expansion of services in general has taken place as is illustrated in the following table.

Electricity Trust of South Australia, Transmission Lines

At 30 June

Rated Voltage	1946	1964	1967	1970	1972
	Route Miles				
275,000 volt	—	370	370	445	445
132,000 volt	—	1,043	1,249	1,387	1,574
66,000 volt	105	430	466	517	729
33,000 volt	477	1,774	2,119	2,174	2,180
19,000 volt (SWER) (a)	—	5,065	8,445	10,615	11,440
11,000 and 7,600 volt	564	4,627	5,607	6,668	7,296
Total mileage	1,146	13,309	18,256	21,806	23,664

(a) Single wire earth return system.

Electric power is transmitted over considerable distances at very high voltages and is stepped down at substations and distribution centres.

Transmission lines of 275,000 volts link power stations at Port Augusta and Torrens Island to a major substation at Para from which 275,000 volt connections radiate to Magill, Cherry Gardens and Happy Valley substations serving the Adelaide metropolitan area. Both lines from Port Augusta are tapped into a new substation at Brinkworth to reinforce distribution to the mid-north area of the State.

Two 132,000 volt lines also link Port Augusta and Adelaide. These lines follow similar routes from Port Augusta to Bungama, near Port Pirie, where a substation serves the mid-north area. From Bungama the lines diverge, one passing through South Hummocks where a substation serves Yorke Peninsula, and the other running *via* Brinkworth to Waterloo where a substation serves the Upper Murray.

Transmission lines of 132,000 volts also extend from the central network to Woomera (Commonwealth Line), Berri, Leigh Creek, Mount Gambier, Whyalla, Port Lincoln, Port Pirie, Waterloo to North West Bend, near Morgan and Cherry Gardens to Mobilong, near Murray Bridge. An additional 132,000 volt line is currently being constructed between Taillem Bend and Mount Gambier; this line is scheduled for completion in late 1973.

In recent years extensive use of the single wire earth return system (see table on page 348) has resulted in the supplying of electricity to areas where consumers are so scattered that supply by conventional methods would have been impracticable.

In the following table the numbers of Electricity Trust consumers in the various categories are given at selected dates.

Electricity Trust of South Australia, Number of Consumers
At 30 June

Consumers	1946 (a)	1964	1967	1970	1972
Residential	<i>n.a.</i>	277,399	321,731	353,289	378,206
General Purpose	<i>n.a.</i>	35,477	38,950	41,773	42,863
Industrial	<i>n.a.</i>	15,579	19,956	22,776	24,467
Bulk and traction	<i>n.a.</i>	10	7	7	11
Total	118,262	328,465	380,644	417,845	445,547

(a) At 31 August. *n.a.* not available

GAS

The South Australian Gas Company, a privately owned company regulated by State legislation, was incorporated by Act of Parliament in 1861 to supply gas to Adelaide and surrounding villages. The first gas was produced at Brompton in 1863 and subsequent plants were opened at Port Adelaide in 1866 and Glenelg in 1875.

An Act authorising a second company, the Provincial Gas Company, was assented to in 1869. This company established a metropolitan works at Thebarton in 1871 and country works were opened at Gawler, Kapunda and Strathalbyn. In 1878 this undertaking was absorbed by the South Australian Gas Company and manufacturing at the Thebarton plant ceased. The country works were kept in operation until 1917. Gas was first produced at Port Pirie in 1892.

Following the development of higher pressure distribution facilities the South Australian Gas Company was able to centralise its metropolitan production at Brompton with the Port Adelaide and Glenelg plants ceasing production in 1922 and 1923 respectively. These plants together with the earlier Thebarton works

were retained as holder stations. In 1928 a new gas works was opened adjacent to the Port River at Osborne. The Osborne works were closed for several years during the 1930s depression.

Since the 1939-45 War a considerable expansion of manufacturing capacity and distribution facilities has taken place. This is evident from the following table which gives details of capital employed, number of consumers and miles of mains at 30 June in selected years.

**South Australian Gas Company, Capital, Consumers, and Mains
At 30 June**

Particulars	1940	1950	1960	1970	1972
Capital employed (\$m).....	5.4	6.0	19.4	40.0	41.1
Number of consumers (a)	61,207	84,629	121,720	186,670	197,012
Miles of mains.....	904	1,042	1,569	2,239	2,386

(a) Includes consumers of bottled gas.

The manufacture of gas by the carbonisation of black coal imported from New South Wales was the conventional method of production until the end of the 1939-45 War. Under this process large quantities of coke and tar are produced as by-products but a declining market for these residuals together with the development of alternative production methods has resulted in less emphasis in recent years on this method of production.

In 1948 and 1950 the company installed plant at Osborne and Brompton for the manufacture of carburetted water gas from oil distillate and coke. This plant was introduced to help meet peak winter loads and could be brought into production much more rapidly than carbonising retorts.

In 1964 the first of four reforming plants was installed at Brompton. These plants operated initially on refinery tail gases and modifications were subsequently made to enable all four plants to reform a wider range of feedstocks, including light virgin naphtha and natural gas. A similar plant is in operation at Port Pirie for reforming light virgin naphtha.

When natural gas became available, the South Australian Gas Company contracted with the producers for a supply of this indigenous fuel. All coal carbonising and carburetted water gas plants making gas for distribution in the metropolitan area were shut down and the reforming plants ceased to operate in 1971 when the conversion of all appliances to use natural gas was completed.

One section of the coal carbonising plant has been retained at the Osborne Works for the manufacture of metallurgical grade coke. Gas resulting from carbonisation is used partly for heating the coal chambers, the remainder being sold.

Gas is reticulated through most of the metropolitan area and Port Pirie. In addition liquefied petroleum gas is distributed by reticulation at Mount Gambier by the Mount Gambier Gas Company Ltd, at Whyalla by the South Australian Gas Company, and is available elsewhere as bottled gas.

An inter-connected system of high and intermediate pressure mains traverses the metropolitan area from the Brompton and Osborne works and mains extend south to Hackham, north-east to Tea Tree Gully and north to Elizabeth. The

Elizabeth main was first laid for industrial use but now serves over 6,000 domestic consumers including 2,000 in the Elizabeth area. The pressure in these mains is reduced by means of governors for distribution to consumers.

The conversion of the metropolitan distribution system to use straight natural gas brought a marked change in the Company's operations. The Company is now concerned largely with the distribution and marketing of gas, with the elimination of the manufacturing function.

Great emphasis is now placed on marketing gas to industry, where as a cheap, non-polluting fuel it is now able to compete successfully with other fuels. This has produced the situation where industrial gas sales made up 43 per cent of all gas sold in 1972 compared with 14 per cent in 1969.

At 30 June 1972 the company was maintaining 2,310 miles of main in the metropolitan area serving 165,923 consumers with natural gas. The Port Pirie system involves 52 miles of mains serving 4,352 consumers. A distribution system has also been developed in Whyalla over the past four years, and at 30 June 1972 involved 24 miles of main serving 1,102 consumers. An additional 25,635 customers are supplied with liquefied petroleum gas in bottles.

8.7 HOUSING AND BUILDING

HOUSING

Features of housing development in South Australia have been the high proportion of stone houses built in earlier years, and of brick houses in more recent years. The familiar old-style stone houses are still to be seen in most settled parts of the State, especially in rural areas. The 1947 Census was the first at which houses with outer walls of brick outnumbered those with walls of stone.

The building materials used have largely been determined by the availability of building stone and deposits of clay suitable for brickmaking, and by the relative lack of natural timbers suitable for houses. In recent years brick veneer homes have become more popular, particularly in Urban Adelaide, but this is partly because of the poor building soil in some of the areas in and near Urban Adelaide.

DWELLINGS: CENSUS DATA

Information on housing is obtained mainly from particulars of dwellings collected at each census. For the purpose of the Census a 'dwelling' is any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term 'dwelling' includes houses, home units and flats, and in addition habitations ranging from a single-roomed shack to a multi-roomed hotel or institution. Dwellings have been classified as 'private' or 'non-private'. Private dwellings include private houses, home units, shares of private houses, self-contained flats, shares of self-contained flats, rooms, apartments, sheds and huts; non-private dwellings include hotels, motels, boarding houses, lodging houses and hostels, educational, religious, and charitable institutions, hospitals, and defence and penal establishments.

The classification of private dwellings has been extended since the 1966 Census to distinguish those dwellings classed as home units which were shown as houses or self-contained flats in the 1966 and previous Censuses. Because of this change in the classification and because there are no standard definitions of home units and flats in common usage, care should be exercised in drawing comparisons between statistics at the 1971 Census and earlier Censuses of houses, home units and self-contained flats.

Dwelling counts from the seven censuses to 1971 are shown in the next table: figures for Censuses before 1966 exclude dwellings occupied solely by full-blood Aborigines.

Dwellings in South Australia, Censuses 1921 to 1971

Census	Occupied			Unoccupied (a)	Total Dwellings
	Private	Non-private	Total		
1921.....	104,295	3,619	107,914	4,431	112,345
1933.....	136,611	2,663	139,274	5,353	144,627
1947.....	166,118	2,420	168,538	3,547	172,085
1954.....	212,095	3,206	215,301	8,524	223,825
1961.....	259,344	2,564	261,908	17,061	278,969
1966.....	299,933	2,693	302,626	25,110	327,736
1971.....	342,064	2,048	344,112	30,553	374,665

(a) See page 357 'Unoccupied Dwellings'.

Total dwellings more than trebled in the fifty years to 1971, with the greatest increase (about 203,000 out of a total of 262,000) occurring subsequent to the 1947 Census.

In most of the tables which follow, details of dwellings at the 1971 Census are given by geographical distribution. New criteria were adopted at the 1966 Census for the delimitation of urban centres, a full description of which is contained in part 5.2 pages 112-4. The relevant tables show totals for each section of the State only, namely:

- (a) Urban Adelaide; this area is the 'urban centre' of Adelaide.
- (b) Other Urban; includes all urban centres other than Urban Adelaide.
- (c) Rural; includes all areas not included in (a) or (b) above.

Occupied Dwellings

The next table gives details of occupied dwellings only, according to the class of dwelling. Private dwellings were classified into the following four categories.

Private House; houses (including semi-detached and terrace houses) used for dwelling purposes by a household group;

Home Unit; one of a group of three or more single or double storey homes, separate or joined together in sets of two or more, all occupying a common block of land;

Other Self-contained Flat; a part of a house or other building which can be completely closed off and which has its own cooking and bathing facilities;

Other Private Dwelling; includes non-self-contained flats and such sheds, huts, caravans etc. which are occupied on a permanent or semi-permanent basis.

**Occupied Dwellings by Class, South Australia
Censuses 1966 and 1971**

Class of Dwelling	30 June 1966	30 June 1971			
	Total	Urban		Rural	Total
		Adelaide	Other		
Private dwellings:					
Private house (a)	271,171	210,921	48,420	47,287	306,628
Home unit (a)	<i>n.a.</i>	12,604	699	127	13,430
Other self-contained flat (a) ..	20,802	14,834	1,377	358	16,569
Other private dwelling	7,960	2,836	1,095	1,506	5,437
Total private dwellings ..	299,933	241,195	51,591	49,278	342,064
Non-private dwellings	2,693	988	542	518	2,048
Total occupied dwellings	302,626	242,183	52,133	49,796	344,112

(a) See notes on comparability page 352.

The following table shows the number of persons enumerated in each class of dwelling at the last two censuses.

**Number of Inmates by Class of Dwelling, South Australia
Censuses 1966 and 1971**

Particulars	30 June 1966	30 June 1971			
	Total	Urban		Rural	Total
		Adelaide	Other		
Persons enumerated:					
In private dwellings:					
Private house (a)	981,870	723,702	166,919	168,190	1,058,811
Home unit (a)	<i>n.a.</i>	22,029	1,434	298	23,761
Other self-contained flat (a) ..	45,268	30,313	3,098	851	34,262
Other private dwellings	17,746	4,794	2,510	4,111	11,415
Total private dwellings ..	1,044,884	780,838	173,961	173,450	1,128,249
In non-private dwellings	47,217	28,592	9,147	5,540	43,279
Total occupied dwellings	1,092,101	809,430	183,108	178,990	1,171,528
Persons not enumerated in dwellings:					
Campers-out	1,310	52	79	158	289
Migratory	1,573	..	..	..	1,890
Total population ..	1,094,984	809,482	183,187	179,148	1,173,707

(a) See notes on comparability page 352.

The percentage of persons enumerated in private dwellings was 95.4 at the 1966 Census, and by 1971 this percentage had increased slightly to 96.1. The percentage of persons enumerated in non-private dwellings decreased from 4.3 to 3.7.

Occupied Private Dwellings

There were 299,933 occupied private dwellings at 30 June 1966, and by 30 June 1971 this number had increased to 342,064. Characteristics of these dwellings are shown in the tables which follow.

**Occupied Private Dwellings by Number of Rooms, South Australia
Censuses 1966 and 1971**

Number of Rooms Per Dwelling	Private House (a)	Home Unit (a)	Other Self Contained Flat (a)	Other Private	Total
30 June 1966					
1.....	146	<i>n.a.</i>	301	2,225	2,672
2.....	1,006	<i>n.a.</i>	3,048	2,097	6,151
3.....	4,526	<i>n.a.</i>	7,399	1,776	13,701
4.....	30,428	<i>n.a.</i>	6,922	909	38,259
5.....	131,128	<i>n.a.</i>	2,096	522	133,746
6.....	65,446	<i>n.a.</i>	628	236	66,310
7.....	24,865	<i>n.a.</i>	233	111	25,209
8 and over	13,626	<i>n.a.</i>	175	84	13,885
Total	271,171	<i>n.a.</i>	20,802	7,960	299,933
Average number of rooms per dwelling	5.5	<i>n.a.</i>	3.6	2.6	5.3
30 June 1971					
1.....	305	273	651	2,407	3,636
2.....	1,416	1,940	2,792	1,348	7,496
3.....	6,512	5,747	6,510	868	19,637
4.....	36,721	4,816	4,866	353	46,756
5.....	158,321	512	1,085	192	160,110
6.....	68,741	88	345	115	69,289
7.....	22,544	27	132	83	22,786
8 and over	12,068	27	188	71	12,354
Total	306,628	13,430	16,569	5,437	342,064
Average number of rooms per dwelling	5.3	3.3	3.3	2.2	5.1

(a) See notes on comparability page 352. *n.a.* not available

The number of rooms includes kitchen and enclosed sleep-out, but does not include bathroom, toilet, pantry, laundry or storerooms, halls or rooms used only for business purposes. A combined living-dining room or combined kitchen-living or kitchen-dining room was counted as one room.

The largest increase in the five-year period was in five-roomed dwellings. In 1966 five-roomed dwellings were 44.6 per cent of all occupied dwellings; by 1971 this percentage had increased to 46.8. The total increase in private dwellings was approximately 42,100 and 26,400 of these were five-roomed dwellings.

The average number of occupants per occupied private dwelling had fallen progressively from 4.03 in 1933 to 3.65 in 1947 and to 3.49 in 1954. The figures then rose slightly to 3.54 in 1961 fell to 3.48 in 1966, and fell further to 3.30 in 1971.

**Occupied Private Dwellings by Number of Inmates, South Australia
Census 30 June 1971**

Number of Inmates Per Dwelling	Private House	Home Unit	Other Self Contained Flat	Other Private	Total
1.....	30,047	6,169	5,454	2,617	44,287
2.....	77,482	5,252	7,082	1,331	91,147
3.....	58,236	1,292	2,400	642	62,570
4.....	64,046	486	1,041	429	66,002
5.....	41,951	159	376	208	42,694
6.....	20,751	50	147	115	21,063
7.....	8,275	14	46	47	8,382
8 and over	5,840	8	23	48	5,919
Total	306,628	13,430	16,569	5,437	342,064
Total inmates	1,058,811	23,761	34,262	11,415	1,128,249
Average number of inmates per dwelling	3.45	1.77	2.07	2.10	3.30

Occupied Private Houses and Self-contained Flats

The tables in this section give details of occupied private houses and self-contained flats only.

The following two tables give details of occupied private houses and self-contained flats by the type of occupancy and material of outer walls respectively.

**Occupied Private Houses and Self-contained Flats by Nature of Occupancy
South Australia, Censuses 1966 and 1971**

Nature of Occupancy	30 June 1966	30 June 1971				
		Total	Urban		Rural	Total
			Adelaide	Other		
PRIVATE HOUSES (a)						
Owner, purchaser by instalments	208,744	162,951	29,585	33,896	226,432	
Tenant of Housing Trust	25,412	21,718	9,040	719	31,477	
Tenant of employer	<i>n.a.</i>	1,725	4,081	4,167	9,973	
Tenant, other	32,181	18,904	3,985	3,931	26,820	
Other.....	3,524	2,962	1,135	3,759	7,856	
Not stated	1,310	2,661	594	815	4,070	
Total private houses ...	271,171	210,921	48,420	47,287	306,628	
OTHER SELF-CONTAINED FLATS (a)						
Owner, purchaser by instalments	4,018	1,819	147	110	2,076	
Tenant of Housing Trust	2,083	1,124	12	1	1,137	
Tenant of employer	<i>n.a.</i>	171	112	40	323	
Tenant, other	14,270	10,972	1,007	149	12,128	
Other.....	339	386	62	42	490	
Not stated	92	362	37	16	415	
Total self-contained flats	20,802	14,834	1,377	358	16,569	

(a) See notes on comparability page 352.

For occupied private houses the proportion of owners and purchasers by instalments fell from 77.0 per cent to 73.8 per cent between the 1966 and 1971 Censuses and the proportion of tenants increased from 21.3 per cent to 22.3 per cent. On the other hand the increase in occupancy of flats was largely on a rental basis, up from 78.6 per cent to 82.0 per cent.

**Occupied Private Houses and Self-contained Flats by Material of Outer Walls
South Australia, Censuses 1966 and 1971**

Material of Outer Walls	30 June 1966		30 June 1971	
	Houses (a)	Flats (a)	Houses	Flats
Brick	144,848	13,722	183,784	12,452
Brick veneer	13,822	488	18,613	330
Stone	55,011	3,124	52,927	2,227
Concrete	15,843	2,347	8,742	805
Timber	12,679	222	13,160	173
Metal	5,766	197	6,244	141
Fibro-cement	22,502	680	22,253	412
Other.....	700	22	905	29
Total	271,171	20,802	306,628	16,569

(a) See notes on comparability page 352.

At the 1971 Census the number of private dwellings with outer walls of brick (including brick veneer) represented almost 67 per cent of all private houses and self-contained flats. This was a significant increase over the 1966 proportion of 59 per cent. Dwellings of stone walls accounted for nearly 20 per cent of the total in 1966 and fell to 17 per cent in 1971.

**Occupied Private Houses and Self-contained Flats by Facilities
South Australia, Censuses 1966 and 1971**

Facilities	30 June 1966		30 June 1971		
	Total	Urban		Rural	Total
		Adelaide	Other		
PRIVATE HOUSES (a)					
Gas only	533	69	30	182	281
Electricity	136,183	83,038	35,527	35,672	154,237
Gas and electricity	132,592	127,159	12,656	10,859	150,674
Neither gas nor electricity	1,346	65	58	370	493
Not stated	517	590	149	204	943
Total private houses	271,171	210,921	48,420	47,287	306,628
Television set	220,453	179,001	40,007	36,412	255,420
OTHER SELF-CONTAINED FLATS (a)					
Gas only	38	7	1	3	11
Electricity	8,323	6,261	1,132	259	7,652
Gas and electricity	12,365	8,402	228	88	8,718
Neither gas nor electricity	15	1	1	1	3
Not stated	61	163	15	7	185
Total self-contained flats ..	20,802	14,834	1,377	358	16,569
Television set	13,981	10,312	836	208	11,356

(a) See notes on comparability page 352.

The proportions of both private houses and self-contained flats that were stated to have gas and/or electricity remained approximately the same (99 per cent) at both censuses. The percentage of private houses and self-contained flats with television sets rose slightly from 1966 to 1971 (81.3 per cent to 83.3 per cent for houses and from 67.2 per cent to 68.5 per cent for self-contained flats).

At the 1966 and 1971 Censuses each householder was asked to state the number of motor vehicles (excluding motor cycles, scooters and tractors) used by members of that household that were garaged or parked at or near that dwelling on census night. Data were obtained only for private dwellings.

Occupied Private Houses and Self-contained Flats by Number of Motor Vehicles South Australia, Censuses 1966 and 1971

Number of Vehicles	30 June 1966	30 June 1971			
	Total	Urban		Rural	Total
		Adelaide	Other		
		Private Houses (a)			
No vehicles	47,270	34,225	6,890	3,149	44,264
One vehicle	142,752	111,574	26,664	18,122	156,360
Two vehicles	56,630	50,411	11,194	14,105	75,710
Three vehicles	14,848	9,703	2,328	7,007	19,038
Four or more vehicles	5,657	2,408	780	4,437	7,625
Not stated	4,014	2,600	564	467	3,631
Total private houses ...	271,171	210,921	48,420	47,287	306,628
		Other self-contained flats (a)			
No vehicles	7,793	4,648	292	54	4,994
One vehicle	10,176	8,050	779	200	9,029
Two vehicles	1,604	1,437	218	63	1,718
Three vehicles	210	188	32	26	246
Four or more vehicles	69	103	15	8	126
Not stated	950	408	41	7	456
Total self-contained flats	20,802	14,834	1,377	358	16,569

(a) See notes on comparability page 352.

Unoccupied Dwellings

Unoccupied dwellings include vacant dwellings available for sale or renting; dwellings such as weekenders or holiday homes and seasonal workers quarters which were not occupied on Census night; dwellings normally occupied but whose occupants were temporarily absent on the night of the Census; newly completed dwellings where owners or tenants had not entered into occupation on Census night; dwellings described as 'to be demolished', 'condemned', 'exhibition home', etc.; and buildings constructed as dwellings but used for non-dwelling purposes on the night of the Census.

**Reason for being Unoccupied by Class of Unoccupied Private Dwelling
South Australia, Census 1971**

Reason Unoccupied	Class of Dwelling				Total
	Private House	Home Unit	Other Self-contained Flat	Other Private	
For sale	1,900	120	95	3	2,118
To let	1,625	75	767	101	2,568
Newly built	1,335	147	312	2	1,796
Vacant for repair	1,296	10	77	12	1,395
Holiday house	9,056	147	319	162	9,684
Condemned	1,313	5	36	17	1,371
Temporarily vacant ..	6,686	420	757	156	8,019
Other reasons	2,770	37	85	35	2,927
Not stated	572	21	56	26	675
Total	26,553	982	2,504	514	30,553

BUILDING

BUILDING CONTROL

The Building Act, 1923-1965 gives local government authorities power to control building operations within their municipality or district. This power is not automatic but follows a request from a local government authority for all, or a specified portion, of its area, to be brought under the Act. In areas outside the jurisdiction of the Building Act certain building provisions under the Local Government Act, 1934-1972 apply.

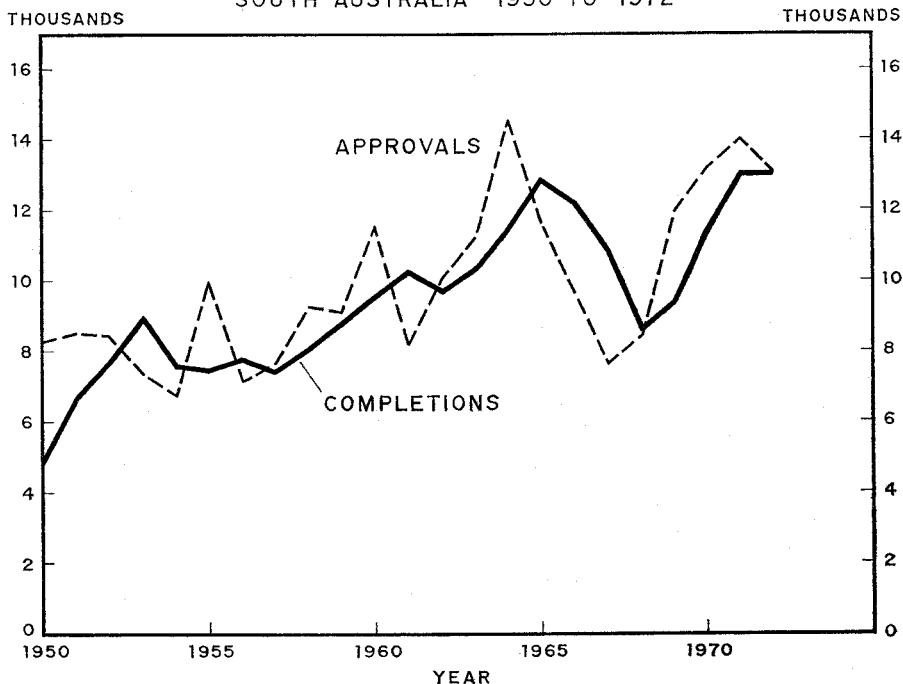
Persons erecting or altering buildings on land coming under the Building Act are required to submit to a building surveyor appointed by the local government authority details and plans of the work envisaged and to receive written approval before commencing operations. Authorities concern themselves with such things as the size and location of buildings, the materials used, the height of ceilings and the provision of ventilation and drainage. They have the power to disapprove plans, subject to a right of appeal. Following the approval of plans, local government inspectors visit the construction site to inspect foundations and may visit the site at other times to check that council requirements are being met.

In addition to administering the general site and structural requirements of the Act, authorities may effect their own by-laws under the Local Government Act, 1934-1972. A by-law may prescribe a higher minimum size for dwelling sites than that provided under the Act or may regulate the positioning of a dwelling on a site. One of the most important by-laws is that of defining particular areas or zones within which the nature of buildings and their use may be restricted. Thus certain areas may be proclaimed residential areas with industrial and commercial premises, beyond those already in existence, prohibited; other areas are designated as industrial zones. In some local government areas such by-laws have been replaced by regulations under the Planning and Development Act, 1966-1972. During 1971 the Builders Licensing Act, 1967-1971 came into force with provisions for the licensing of builders.

BUILDING OPERATIONS

Details of building operations in South Australia are compiled from returns collected from all builders of new buildings. The statistics relate only to buildings as distinct from other construction activity such as roads, bridges, earthworks and water storage. Alterations and additions of \$10,000 and over to existing buildings are included with new buildings.

BUILDING OPERATIONS

NEW DWELLINGS BUILDING APPROVALS AND COMPLETIONS
SOUTH AUSTRALIA 1950 TO 1972

All values shown exclude the value of land and unless otherwise stated represent the anticipated or actual value of buildings upon completion.

Building Approvals

The following table shows the value of new buildings, and alterations and additions for which approval was given during 1971 and 1972. In addition to information on permits issued to private persons and organisations for building in areas subject to building control, particulars have been included of buildings known to be projected or to have started in areas outside building control and details of contracts let or expenditure authorised by government and semi-government authorities.

In using approvals as an indicator of building activity it should be noted that certain projects may be cancelled, delayed or altered and resubmitted for approval, that large projects may be spread over a number of years, and that building costs may vary over the period of construction.

Building Approvals, South Australia

Type of Building	1971			1972		
	Private	Govt	Total	Private	Govt	Total
\$'000						
New buildings:						
Houses	77,137	13,094	90,231	98,409	11,479	109,888
Flats	32,577	1,177	33,754	24,752	1,977	26,729
Shops	2,697	—	2,697	5,900	295	6,195
Hotels, hostels, etc.....	4,244	—	4,244	4,825	—	4,825
Factories.....	9,677	7,147	16,824	8,447	1,000	9,447
Office premises	20,901	3,214	24,116	7,876	2,380	10,256
Other business premises	8,603	3,751	12,354	5,425	2,383	7,808
Entertainment and recreation ..	1,495	91	1,586	3,142	4,109	7,251
Educational	1,512	27,876	29,389	1,044	19,553	20,597
Religious	1,123	—	1,123	1,042	—	1,042
Health	1,685	15,390	17,074	1,765	18,021	19,786
Miscellaneous	865	2,992	3,857	3,386	10,111	13,497
Total value	162,516	74,733	237,249	166,013	71,308	237,321
Alterations and additions (a).....	17,995	609	18,604	22,021	615	22,636
Total value all buildings ..	180,511	75,342	255,853	188,034	71,923	259,957

(a) Alterations and additions of \$10,000 or more are included with new buildings.

Value of Work Done

Possibly the best measure of building activity is that of value of work done, i.e. of work actually carried out on buildings during the period. Information on the value of work done on owner-built houses is not collected, however an estimate based on the value of houses commenced, completed and under construction is calculated for such houses, yielding figures of \$3.9 million, \$3.5 million, and \$4.8 million for 1970, 1971 and 1972 respectively.

New Buildings: Value of Work Done, South Australia

Type of Building	1968	1969	1970	1971	1972
\$'000					
Houses (a)	58,055	67,374	79,010	89,468	101,588
Flats (b)	8,810	14,188	23,839	27,369	31,418
Total dwellings (a)	66,865	81,562	102,849	116,837	133,005
Shops	8,731	8,469	12,129	2,225	4,498
Hotels, hostels, etc.....	2,553	2,683	5,189	3,028	4,032
Factories.....	8,446	8,569	10,886	12,333	15,840
Office premises	8,924	7,853	11,540	15,578	19,995
Other business premises	11,997	8,954	11,992	14,284	18,162
Entertainment and recreation ...	1,725	2,375	1,715	3,029	5,606
Educational	12,079	15,730	16,929	20,751	22,363
Religious	806	803	829	944	1,055
Health	9,397	10,263	10,480	15,660	12,666
Miscellaneous	2,515	3,791	8,440	3,652	4,052
Total new buildings (a)	134,038	151,052	192,978	208,319	241,276

(a) Excludes owner-built houses. (b) Includes home units.

Buildings Under Construction

At the end of 1972 new buildings with an anticipated value when completed of \$180,828,000 were in the process of construction, with work done on these buildings valued at \$89,211,000. There were 4,041 houses and 2,283 flats in the course of construction, having an anticipated value when completed of \$66,816,000.

New Buildings Commenced

A building is recorded as commenced when work on the foundation has begun. In the table below commencements during 1971 and 1972 have been classified according to ownership at the date of commencement. Almost all houses recorded under the 'government' heading were being built for the South Australian Housing Trust, many of them being intended for sale on completion.

New Buildings Commenced, South Australia^(a)

Type of Building	1971			1972		
	Private	Govt	Total	Private	Govt	Total
	\$'000 (b)					
Houses	75,958	13,534	89,492	98,032	12,660	110,692
Flats (c)	26,820	635	27,455	30,049	2,478	32,527
Shops	2,269	6	2,275	5,653	—	5,653
Hotels, hostels, etc.	3,285	—	3,285	4,475	—	4,475
Factories	7,759	13,003	20,760	9,661	3,042	12,702
Office premises	15,446	9,547	24,993	14,369	2,262	16,632
Other business premises	5,340	3,624	8,964	5,459	4,662	10,121
Entertainment and recreation	1,410	568	1,977	2,598	4,259	6,857
Educational	1,921	17,989	19,911	1,684	21,711	23,396
Religious	955	—	955	1,140	—	1,140
Health	1,334	5,798	7,131	5,258	9,987	15,245
Miscellaneous	1,923	1,797	3,720	3,166	3,562	6,727
Total value of new buildings commenced	144,421	66,502	210,920	181,544	64,622	246,165

(a) Alterations and additions of \$10,000 or more are included with new buildings.

(b) Anticipated completion value.

(c) Includes home units.

New Buildings Completed

Details of new buildings completed for the years 1963 to 1972 are given in the next table. A building is regarded as having been completed when the contractor has fulfilled the terms of the contract or in the case of an owner-built house when the dwelling is either completed or occupied, whichever occurs first. However, the value in all cases is that of the building as a finished product.

New Buildings Completed, South Australia

Year	Number of Dwellings		Value of New Buildings			
	Houses	Flats (a)	Houses	Flats (a)	Other	Total
			\$'000			
1963.....	10,316	816	70,396	4,162	45,092	119,650
1964.....	10,869	1,279	78,148	6,264	54,288	138,700
1965.....	10,597	2,149	79,443	11,612	66,257	157,312
1966.....	10,095	1,607	78,810	8,288	56,824	143,922
1967.....	8,335	1,317	69,132	6,191	65,890	141,213
1968.....	6,896	1,603	61,138	8,173	73,003	142,314
1969.....	7,226	2,108	68,686	12,038	73,629	154,353
1970.....	7,902	3,511	78,369	22,627	79,892	180,887
1971.....	8,893	4,093	92,025	26,319	87,569	205,913
1972.....	8,778	4,340	102,109	29,839	98,749	230,696

(a) Includes home units.

The following table gives further details of dwellings completed over the five years to 1972. A noticeable feature of the table is the relative importance of flats which accounted for 31.5 per cent of dwelling completions in 1972.

Number of New Dwellings Completed, South Australia

Type of Dwelling	1968	1969	1970	1971	1972
Private:					
Contract-built houses	4,473	5,284	5,735	6,337	6,669
Owner-built houses (a).....	402	359	362	317	414
Total houses	4,875	5,643	6,097	6,654	7,083
Flats (b)	1,580	2,051	3,290	4,003	4,196
Total private dwellings..	6,455	7,694	9,387	10,657	11,279
Government:					
Houses	2,021	1,583	1,805	2,239	1,695
Flats	23	57	221	90	144
Total government dwellings	2,044	1,640	2,026	2,329	1,839
Total all dwellings ...	8,499	9,334	11,413	12,986	13,118

(a) Owner-built are houses erected without services of contractor for whole job. (b) Includes home units.

The value of buildings, other than dwellings, completed over the same period is shown below. Included under 'other business premises' are service-stations, warehouses and communication buildings and under 'miscellaneous' are defence establishments, buildings for law and order and certain institutional premises.

Value of New Buildings Other Than Dwellings Completed, South Australia^(a)

Type of Building	1968	1969	1970	1971	1972
	\$'000				
Shops	12,487	8,200	13,002	3,396	3,584
Hotels, hostels, etc.....	2,561	2,526	4,261	3,114	3,508
Factories.....	7,965	6,942	10,698	16,784	11,588
Office premises	14,898	11,656	12,722	11,989	17,964
Other business premises	7,635	11,695	10,874	8,079	18,079
Entertainment and recreation ...	1,835	2,393	1,416	1,797	2,100
Educational	9,588	15,089	11,021	24,530	18,728
Religious	723	841	788	1,078	1,060
Health	13,014	10,593	7,017	12,692	18,597
Miscellaneous	2,297	3,694	8,093	4,113	3,541
Total	73,003	73,629	79,892	87,569	98,749

(a) Includes alterations and additions of \$10,000 and over to existing buildings.

New Houses—Material of Outer Walls

A plentiful supply of clay and building stone together with a paucity of suitable timbers has resulted in the majority of South Australian houses being of solid construction. In the table below new houses are classified according to the materials used in the outer walls.

New Houses: Material of Outer Walls, South Australia

Year	Brick, Concrete, Stone		Brick Veneer and Stone Veneer		Asbestos-Cement		Other	
	Number	Value	Number	Value	Number	Value	Number	Value
	\$'000		\$'000		\$'000		\$'000	
COMMENCED								
1968.....	4,415	44,330	1,784	13,055	549	3,637	76	430
1969.....	4,741	49,916	2,135	16,908	593	4,241	46	403
1970.....	4,860	54,520	3,218	27,511	683	4,854	59	395
1971.....	4,707	56,878	2,833	26,705	747	5,606	33	304
1972.....	5,168	69,886	3,193	34,205	779	6,078	62	522
COMPLETED								
1968.....	4,179	41,719	2,129	15,612	509	3,387	79	420
1969.....	4,645	48,559	1,980	15,861	557	3,907	44	359
1970.....	4,512	50,036	2,655	22,985	676	4,893	59	456
1971.....	4,882	57,343	3,206	28,605	763	5,696	42	378
1972.....	4,915	64,011	3,043	31,582	750	5,858	70	658

In 1972 brick veneer houses constituted 35 per cent of commencements. Although the larger proportion of brick veneer houses are built by the South Australian Housing Trust a wider acceptance of this type of construction is indicated by the increasing number being erected by private contractors.

Location of New Dwellings

In recent years the greatest development has occurred in the local government areas of Noarlunga, Salisbury and Tea Tree Gully; during the five years 1968 to 1972 new dwellings in these areas accounted for 28 per cent of the total

State completions. Of the country local government areas Whyalla has recorded the greatest number of completions each year from 1959.

Location of New Houses and Flats Completed, South Australia

Local Government Area	1968	1969	1970	1971	1972
Brighton	122	106	92	232	225
Burnside	244	253	277	280	328
Campbelltown	322	351	351	397	516
Elizabeth	113	18	83	315	172
Enfield	322	264	299	450	724
Glenelg	179	174	386	296	272
Henley and Grange	196	127	261	197	286
Marion	328	409	452	529	459
Meadows	126	166	244	322	362
Millicent	80	51	44	77	47
Mitcham	421	540	585	748	708
Mount Gambier Municipality ...	104	130	86	108	134
Munno Para	332	101	69	148	100
Murray Bridge	32	57	38	79	97
Noarlunga	716	894	1,049	1,227	1,074
Payneham	62	163	163	248	190
Port Adelaide	93	145	169	187	174
Port Augusta	99	135	115	206	150
Port Lincoln Municipality	90	62	94	111	58
Salisbury	612	993	1,303	1,276	1,574
Stirling	94	88	85	124	143
Tea Tree Gully	567	788	1,108	1,210	1,308
Unley	209	198	327	274	165
West Torrens	505	512	656	581	539
Whyalla	617	514	412	402	385
Woodville	311	386	596	720	726
Other	1,603	1,709	2,069	2,242	2,202
Total State	8,499	9,334	11,413	12,986	13,118

Building Employment

Details of building employment in South Australia are given in the next table. The figures are an average of the number of persons employed on four days in the year, namely at the end of March, June, and September and in mid-December. They include all contractors and sub-contractors, and employees of contractors, sub-contractors and government instrumentalities, who on these four days were engaged on the construction, alteration, repair and maintenance of buildings, but exclude persons working on owner-built houses or for contractors or sub-contractors who undertake only alterations, additions, repairs, and maintenance. Persons 'actually engaged' include those temporarily laid off because of weather. Some duplications may occur as a result of frequent movement between jobs or because some persons (such as electricians) may work on several jobs which are under construction simultaneously.

The average employment figure of 14,653 for 1972 was made up of 7,462 persons working on new private dwellings, 4,925 working on other new buildings and 2,266 employed on additions, alterations, repairs and maintenance.

Building Employment, South Australia

Classification	1968	1969	1970	1971	1972
	PERSONS ENGAGED				
Occupational status:					
Contractors	639	607	578	563	609
Sub-contractors	2,830	3,232	3,515	3,786	3,992
Wage-earners	8,327	8,494	9,453	9,666	10,052
Trade:					
Carpenters	3,118	3,147	3,235	3,378	3,404
Bricklayers	1,931	2,079	2,206	2,204	2,320
Painters	1,059	1,094	1,219	1,244	1,291
Electricians	690	729	890	928	955
Plumbers	1,060	1,133	1,245	1,256	1,293
Builders labourers	1,545	1,545	1,685	1,738	1,949
Other	2,393	2,606	3,066	3,267	3,441
Total	11,796	12,333	13,546	14,015	14,653

THE SOUTH AUSTRALIAN HOUSING TRUST

The South Australian Housing Trust which was constituted by Act of Parliament in 1936 provides houses and flats for rental and houses for sale.

Rental Dwellings

When the South Australian Housing Trust commenced operations in 1937 it undertook, in the words of its first Annual Report, 'the provision of accommodation necessary for decent living at low rentals for persons coming within the lower income group.' The enabling legislation confined the Trust's activities for many years to the building and letting of double-unit attached houses. Subsequent legislation provided for the construction of single unit houses for rental and an eventual removal of statutory limitations on the capital cost of houses permitted the construction of larger single-unit houses. At 30 June 1972 the Trust had completed 34,453 houses for rental; of these 965 were completed during 1971-72.

In 1952 Trust rental accommodation was expanded with the construction of the first flats for single persons and for married couples without young children. Originally only two-storey flat developments were built; since 1953, however, three-storey flats and single-storey villa flats have also been constructed. At 30 June 1972 the Trust had built 1,834 flat units. In 1954 construction of small groups of cottage flats for elderly persons began on five sites in the metropolitan area. At 30 June 1972, 2,141 of these units had been built; 784 for charitable organisations and 1,357 for rental by the Trust.

Dwellings for Sale

Since the inception of its programme of building houses for sale in 1946, the Trust has greatly expanded its operations in this area. Under the original scheme, purchasers were required to provide their own finance, either from a lending institution or from their own resources. Since 1952, however, the Trust has been able to advance money on second mortgage. During the year ended 30 June 1972, 551 houses for sale were completed under this scheme.

In addition, under the rental-purchase scheme established in 1962, houses are made available for a minimum deposit of \$100 under an agreement to purchase. At the end of June 1972, 5,533 houses had been sold under these agreements.

The Trust provides a variety of sizes and designs for sale houses, depending on cost, location, and availability of building materials. Houses are provided for primary producers on their own land and for employees of State Government departments at the request of the departments concerned.

Details of dwellings completed by the Trust since its inception, both for rent and for sale, are given in the following table.

South Australian Housing Trust, Number of Dwellings Completed^(a)

Period	Houses		Flats		Rural Dwellings including Soldier Settlers	Total
	Single Units	Double Units (b)	Cottage Flats	Other		
1937-1967 ..	32,649	(c)22,785	1,462	1,429	1,234	59,559
1967-68	1,519	745	94	17	—	2,375
1968-69	1,232	532	104	30	—	1,898
1969-70	1,299	303	65	45	—	1,712
1970-71	1,371	420	177	245	—	2,213
1971-72	1,396	498	239	68	—	2,201
Total ..	39,466	25,283	2,141	1,834	1,234	69,958

(a) Excludes emergency and temporary dwellings. (b) Number of individual dwelling units.

(c) Includes a small number of triple-units.

The Trust's early activities concentrated on the provision of rental and sales dwellings in small and usually separate groups. The expansion of its activities has led the Trust into the more complex areas of town planning and urban development. At Elizabeth, 17 miles north of Adelaide, a comprehensive development including a wide range of houses for sale and houses and flats for rent has grown into a city, complete with commercial and industrial areas. There are also several other areas throughout the State where the Trust is helping to provide housing in close proximity to employment.

Most of the funds used to finance the building operations of the Trust are borrowed either from the State Government under the Commonwealth-State Housing Agreement or from semi-government borrowings arranged in conjunction with the State Treasury. Details of funds employed, and of the revenue and expenditure of the Trust in recent years are given on page 568.

COMMONWEALTH-STATE HOUSING AGREEMENTS

In July 1953 the State Government became party to an agreement already existing between Commonwealth and certain other States under which the Commonwealth Government made substantial loans to the States for the provision of housing. The initial agreement was renewed in 1956, 1961 and again in 1966 for a further five years. This agreement was terminated on 30 June 1971 and new Commonwealth legislation, the *States Grants (Housing) Act* 1971, operated from 1 July 1971.

Under the Housing Agreement the Commonwealth made advances to the State for the erection of dwellings by the South Australian Housing Trust and for

the provision of finance for home builders by means of loans, through the Home Builders Fund, to the State Bank and certain building societies. At least 30 per cent of the funds provided had to be channelled through the Home Builders Fund. The advances with interest are repayable by the State over fifty-three years. A total of \$276,929,000 had been loaned to the State under these agreements to 30 June 1971 providing for a total of 51,342 dwellings to 30 June 1971.

Commonwealth-State Housing Agreement, South Australia

Particulars	1966-67	1967-68	1968-69	1969-70	1970-71
	\$'000				
Advances for year:					
Housing Trust	10,000	10,150	9,500	9,750	11,750
Home Builders Fund	10,750	10,850	10,000	11,500	13,250
Total	20,750	21,000	19,500	21,250	25,000
Liability at end of year:					
Housing Trust	110,452	119,709	128,228	136,913	147,505
Home Builders Fund	71,680	82,054	91,504	102,379	114,932
Total	182,132	201,763	219,732	239,292	262,437

From 1 July 1971, the States were responsible for financing their housing programmes from Loan allocations but, under the new legislation, received Commonwealth assistance by way of grants towards the debt charges involved. In terms of the *States Grants (Housing) Act 1971* which prescribes the new arrangements and conditions, South Australia will receive grants of \$14,107,500 in respect of each of the five years from 1971-72 to 1975-76, payable over a period of 30 years. Accordingly, this State received \$470,250 in 1971-72.

DEPARTMENT OF HOUSING

The Commonwealth Department of Housing was established in January 1964. The principal activities of the Department in South Australia are the administration of the War Service Homes Act, the Home Savings Grant Scheme and the Migrant Flat Scheme.

War Service Homes

The War Service Homes Branch of the Department of Housing originated in the War Service Homes Commission which was set up in 1919 to help provide homes for ex-servicemen and their dependants.

Persons currently eligible for assistance include ex-members of the Australian forces and nursing services who were enlisted, appointed for or employed on active service outside Australia during the 1914-18 or 1939-45 Wars, or who served in Korea, Malaya or Vietnam during certain specified periods after 26 June 1950, or in other areas as specified from time to time by the Commonwealth Government. Also eligible are other British ex-service personnel who were resident in Australia before enlistment and certain members of the mercantile marine services. Assistance may be granted to the widow or, in some cases, the widowed mother of an eligible person.

Assistance is given to building a home, in purchasing a new or existing home, or in discharging a mortgage which has been arranged with the prior approval of the Branch. In certain circumstances a person who has not received the

maximum loan may receive a further loan to undertake certain additions. The maximum loan available at 30 June 1972 was \$9,000 and the interest rate 3½ per cent.

Funds used by the War Service Homes Branch are made available from Commonwealth Consolidated Revenue.

War Service Homes Branch, South Australia

Year	Activities During Year		Advances Outstanding at End of Year	
	Homes Provided	Capital Advanced	Number	Amount
		\$'000		\$'000
1967-68	419	3,000	16,729	75,476
1968-69	450	3,470	16,700	75,916
1969-70	509	4,100	16,693	76,405
1970-71	537	4,380	16,719	77,248
1971-72	669	6,060	16,801	79,389

Homes Savings Grant

Under the Commonwealth Homes Savings Grant Scheme introduced in 1964, married, widowed and divorced persons under 36 years of age, who have lived and saved in Australia for at least three years, may become eligible for a grant of \$750 to assist them in obtaining a home. To be eligible for the maximum grant a couple must have saved \$2,250 or more in an acceptable form before entering into a contract for the purchase or construction of a dwelling or, if an owner/builder, before commencing construction. Persons who have saved less than \$2,250 may qualify for a reduced grant. Money already expended on the purchase of land or on the purchase or construction of a dwelling may be included in acceptable savings. An application for a grant must be lodged not longer than twelve months after signing a contract (or commencing to build if an owner/builder) although, in special circumstances, an application lodged after twelve months may be considered.

A total of 25,268 Home Savings Grants had been approved in South Australia at 30 June 1972, representing a total payment of \$10,723,615.

OTHER HOME FINANCE SOURCES

The State Bank of South Australia advances funds provided by the State Government under the Advances for Homes Act, 1928-1970, funds provided from the Home Builders Fund, and its own funds. The Savings Bank of South Australia advances its own funds either as Homes Act loans guaranteed by the State Treasurer or on its own terms. Homes Act loans are also arranged by the South Australian Superannuation Fund, in addition to loans on its own terms. The Commonwealth Savings Bank and the private savings banks make long-term housing advances.

At 1 October 1971 maximum loans available from the above institutions varied with differing rates for new and existing houses and for solid and timber frame construction. Interest rates charged ranged from 6½ per cent to 7½ per cent and periods of repayment from fifteen to forty years.

The private trading banks make overdraft advances, dependent on the credit status of the borrower, for short periods normally not exceeding five years. Interest rates on these advances varied between 6 and 8½ per cent.

Life assurance companies make housing loans which are normally collaterally secured by a life assurance policy. Maximum loan limits vary considerably between companies but in general are higher than those offered by the banks. Maximum repayment terms are for up to thirty years and interest rates at 1 October 1972 varied between 7¼ and 10 per cent.

Another source of housing finance is the building societies, details of which are given on pages 602-3. Three societies advance money made available from the Home Builders Fund.

Housing Loans Insurance Scheme

The Housing Loans Insurance Corporation was established by the *Housing Loans Insurance Act* 1965 to insure approved lenders against losses arising from the making of housing loans. The main purpose of the activities of the Housing Loans Insurance Corporation is to assist people to obtain, as a single loan and at a reasonable rate of interest, the money they need and can afford to borrow to obtain a home suited to their requirements.

The Housing Loans Insurance Corporation insures loans that are made for a wide range of purposes in addition to the purchase or construction of a dwelling. The other purposes include alterations, extensions or improvements to a dwelling, and the provision or improvement of roads, kerbing and footpaths. An insured loan may be made only by an approved lender. The approved classes of lenders include banks, building societies, co-operative housing societies, friendly societies, life insurance companies and trustee companies.

During 1972, 2,377 housing loans aggregating \$24,980,000 were insured in South Australia.

PART 9

PRODUCTION

9.1 RURAL INDUSTRIES

Two-thirds of the area of the State, from the northern boundary down to latitude 32°S, is mainly desert and unsuitable for agriculture. The rainfall is low and erratic, coming mainly from thunderstorms, and averages less than 8 inches a year. High day temperatures during a large part of the year cause a very high rate of evaporation.

South of latitude 32°S is an area where the rainfall is rather more regular and somewhat higher; this land, mostly semi-arid, is transitional between the desert and the agricultural regions. Small areas are planted to cereals and extensive areas adjacent to the River Murray are irrigated from the waters of the river and devoted to horticulture and viticulture.

A third region extending as far as latitude 36°S enjoys an average annual rainfall varying according to locality between 10 and 25 inches per year and has a reliable growing season of five months or more. This is the main agricultural region of the State and much of the area is devoted to ley farming, producing wheat, barley, oats, fruit and vegetables and carrying sheep and cattle.

The south-eastern part of the State has a rainfall in excess of 20 inches a year but the physiography is not congenial to agriculture, most of the usable area being devoted to grazing and afforestation.

Average Rainfall Over Agricultural Areas

Cereal crops (of which wheat is the most important) are sown following opening rains, which are normally expected in April or May. The growing season varies between districts, but generally can be considered as the eight months April to November, and good rains during this period are vital to the success of the season's harvest.

The following table gives details of average rainfall over most of the crop-growing area of the State for each month of the wheatgrowing season for the years 1966 to 1971.

Average Rainfall Over Agricultural Areas, Monthly, South Australia
Wheatgrowing Seasons

Month	1966	1967	1968	1969	1970	1971
	Inches					
April	0.24	0.14	1.79	0.99	1.40	2.96
May	1.42	0.78	2.93	2.38	1.39	2.20
June	1.87	0.35	2.92	1.30	1.62	2.01
July	2.41	1.81	2.27	2.45	1.26	1.60
August	1.18	1.73	2.67	1.16	2.60	2.51
September	2.04	1.12	0.95	2.01	2.29	1.85
October	1.22	0.38	1.80	0.18	0.39	0.67
November	0.71	0.05	1.28	0.60	1.37	1.85
Total	11.09	6.37	16.63	11.07	12.32	15.67

The average rainfall for the wheatgrowing season fell as low as 6.83 inches in the 1914 drought, 6.28 inches in 1959 and 6.37 inches in 1967 while the highest average recorded for the wheatgrowing season was 19.18 inches in 1916. A more detailed discussion of rainfall over agricultural areas was included on pages 5-9 of the *South Australian Year Book* 1966.

Rural Statistics

Rural statistics are prepared from annual returns collected from every holding of one acre or more, used for the production of agricultural products or the raising of livestock (including poultry) and the production of livestock products.

Returns are collected from some 29,000 holdings in South Australia each year. Particulars relate to rural operations for one complete year ended 31 March but where harvesting of some crops (mainly fruit) has not been completed by that date, returns are collected shortly afterwards.

An owner or occupier who works more than one holding is normally required to report details for each holding. However, where the holdings are near to one another and are in effect worked as one farm, a composite return is obtained, and is treated as covering a single holding in the district in which the main farm is situated.

In issues of the *South Australian Year Book* before 1971 rural production statistics were given for statistical divisions which were combinations of a number of counties. These counties are proclaimed areas with immutable boundaries. From 1971 the statistics have been given for statistical divisions based on combinations of local government areas—a map showing these divisions is included inside the back cover.

The number and area of holdings in each division for the past two years are shown in the following table.

Rural Holdings, Statistical Divisions, South Australia

Statistical Division	Holdings		Area of Holdings	
	1970-71	1971-72	1970-71	1971-72
	Number		'000 acres	
Adelaide	4,307	4,344	263	255
Central	3,141	3,143	3,178	3,175
Kangaroo Island	452	458	776	771
Mount Lofty Ranges	5,530	5,523	1,895	1,893
Murray	6,144	6,107	7,498	7,431
South East	4,456	4,465	5,647	5,663
Eyre.....	2,371	2,365	9,810	9,745
Northern	2,366	2,370	7,314	7,322
Far North	320	320	126,202	124,724
Total	29,087	29,095	162,584	160,980

A classification of holdings by type of main activity was undertaken for the year ended 31 March 1969 based on estimates of gross receipts of each activity made by allocating values to areas of crops and livestock numbers reported on the returns submitted for the year.

The following table gives a summary of the type of activity of rural holdings in each statistical division.

Rural Holdings: Classified by Type of Activity, South Australia, 1968-69

Type of Activity	Statistical Division							Total (a)
	Adelaide	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern	
	Number of Holdings							
Commercial hold- ings:								
Sheep—cereal grain	70	1,239	517	1,505	512	1,471	908	6,303
Sheep	77	18	554	160	1,725	100	286	3,442
Cereal grain ..	20	1,177	106	434	27	490	450	2,720
Cattle (meat production) .	26	3	121	22	329	5	5	562
Cattle (milk production) .	223	80	1,318	371	676	12	33	2,715
Vineyards	116	1	329	1,049	4	—	—	1,499
Fruit (other than vine)	341	1	269	997	3	1	8	1,621
Vegetables; Potatoes ..	45	12	145	5	24	—	3	234
Other and mixed	805	72	45	188	15	—	69	1,194
Poultry	92	38	61	70	7	1	10	279
Pigs	42	39	61	58	21	17	23	263
Other	55	3	16	8	11	—	11	104
Multi-purpose .	59	92	412	294	286	39	131	1,326
Total classified...	1,971	2,775	3,954	5,161	3,640	2,136	1,937	22,262
Unclassified:								
Sub-commercial	1,064	286	1,196	625	525	109	293	4,134
Unused, special, etc.	1,163	148	403	383	306	113	181	2,741
Total holdings	4,198	3,209	5,553	6,169	4,471	2,358	2,411	29,137

(a) Includes Kangaroo Island and Far North Divisions.

A classification of rural holdings by size and by type of main activity is set out in the following table showing those holdings under wheat, barley, and oats and those carrying sheep and cattle classified by area of the holding in 1968-69.

**Rural Holdings: Classified by Size and Principal Activities, South Australia
1968-69**

Size of Holding	Total Holdings	Holdings with					
		Wheat for Grain	Barley for Grain	Oats for Grain	Sheep	Cattle (Milk Production)	Cattle (Meat Production)
Acres		Number					
1- 99 ...	11,335	335	317	155	1,366	1,761	1,176
100- 199 ...	2,030	263	195	152	796	1,016	558
200- 499 ...	2,914	994	819	633	1,949	1,256	1,009
500- 999 ...	3,778	2,426	1,998	1,595	3,410	1,177	1,554
1,000-1,999 ...	4,237	2,960	2,625	2,185	3,983	1,051	2,010
2,000-4,999 ...	3,250	2,425	1,980	1,689	3,868	654	1,559
5,000 and over.	1,593	959	649	720	641	244	840
Total .	29,137	10,362	8,583	7,129	16,013	7,159	8,706

Rural Population

The number of persons of all ages residing permanently on rural holdings in South Australia in March during recent years is shown in the following table. These figures include those temporarily absent at the time, but exclude visitors. Rural population has declined by about 10 per cent over the last 10 years, while the State population has risen by almost 20 per cent.

**Persons Permanently Resident on Rural Holdings, South Australia
At 31 March**

Year	Males	Females	Persons	Year	Males	Females	Persons
1963....	58,668	51,825	110,493	1968	56,992	50,411	107,403
1964....	58,510	51,854	110,364	1969	56,059	49,737	105,796
1965....	58,016	51,361	109,377	1970	54,833	48,824	103,657
1966....	57,932	51,298	109,230	1971	53,347	47,529	100,876
1967....	58,028	51,270	109,298	1972	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

n.a. not available

Rural Employment

In the following table particulars are given of permanent and temporary rural employment and salaries and wages paid during the last five years. The figures include male and female workers. Females engaged mainly in domestic duties are excluded from the table.

**Rural Employment and Wages, South Australia
At 31 March**

Particulars	1968	1969	1970	1971	1972
	Persons				
Permanent workers:					
Owners, lessees, etc.	22,048	22,102	21,526	21,436	21,405
Relatives (not paid wages)...	433	319	449	316	141
Employees	7,902	7,650	7,535	6,992	6,161
Total	30,383	30,071	29,510	28,744	27,707
Temporary workers	15,106	16,214	13,720	13,926	12,637
Total workers	45,489	46,285	43,230	42,670	40,344
	\$'000				
Salaries and wages (a):					
Permanent workers	15,410	15,865	16,690	16,815	<i>n.a.</i>
Temporary workers	12,499	13,501	14,887	16,357	<i>n.a.</i>
Total	27,909	29,366	31,576	33,172	<i>n.a.</i>

(a) During year ended 31 March.
n.a. not available

Farm Machinery

Particulars of farm machinery on rural holdings in South Australia for each of the last six years, and in each statistical division at 31 March 1972 are given in the next two tables.

**Farm Machinery on Rural Holdings, South Australia
At 31 March**

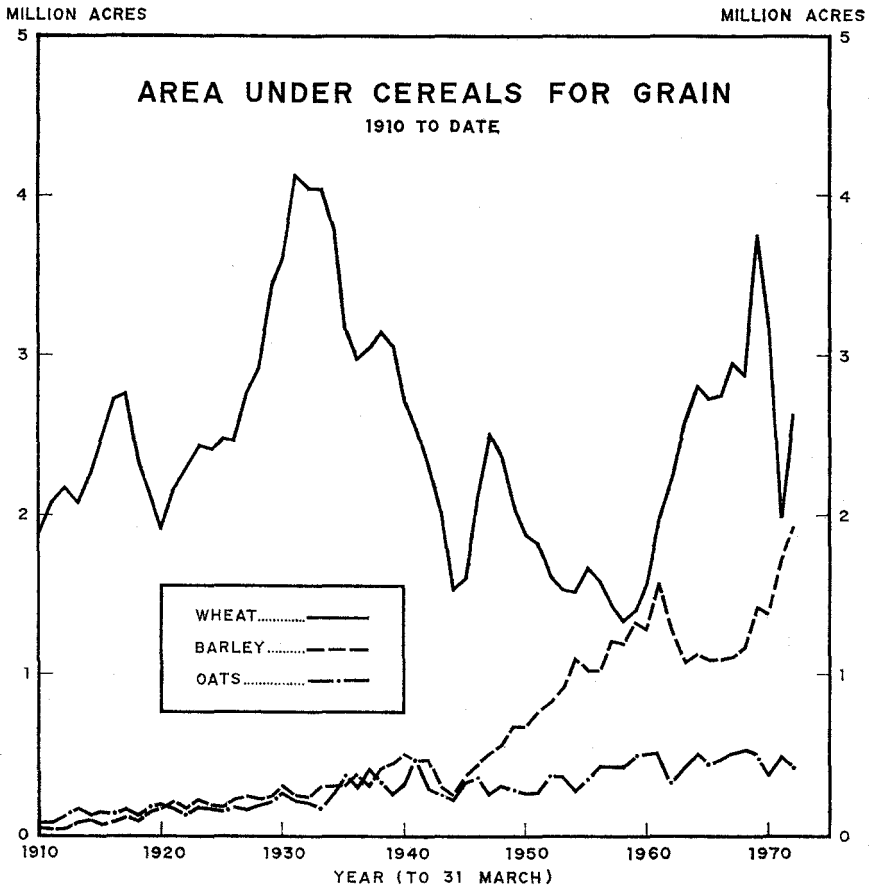
Type of Machine	1967	1968	1969	1970	1971	1972
Shearing machines:						
Machines	15,392	15,758	15,693	15,746	15,852	(a)
Stands	29,343	29,786	29,868	30,080	30,205	29,586
Milking machines:						
Machines	6,634	6,645	6,263	5,947	5,571	(a)
Units	18,143	18,399	17,908	17,642	17,082	16,261
Rotary hoes and rotary tillers	5,442	5,597	5,787	5,612	5,442	6,005
Tractors:						
Wheeled	32,507	33,230	33,534	34,121	33,971	34,223
Crawler	3,322	3,360	3,040	3,143	3,052	2,974
Grain drills:						
Combine	15,489	15,665	15,763	15,481	15,100	15,355
Other	5,093	5,240	5,074	4,953	4,804	4,485
Fertiliser distributors .	9,166	9,710	9,772	9,736	9,667	9,816
Harvesters, headers and strippers	11,579	11,905	12,042	11,218	11,208	11,385
Forage harvesters	765	845	896	914	814	856
Pick-up balers	4,760	4,992	5,305	5,367	5,404	5,582

(a) Not collected separately.

Farm Machinery on Rural Holdings: Statistical Divisions, South Australia
At 31 March 1972

Type of Machine	Statistical Division							Total (a)
	Adelaide	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern	
Shearing stands ...	473	4,269	3,501	4,411	6,502	4,265	3,651	29,586
Milking units	833	1,336	6,219	2,696	3,970	345	718	16,261
Rotary hoes and rotary tillers	1,484	518	1,060	1,585	569	345	367	6,005
Tractors:								
Wheeled	2,382	4,577	5,719	8,043	5,036	4,716	2,782	34,223
Crawler	369	181	445	412	519	592	215	2,974
Grain drills:								
Combine	314	3,027	1,905	3,183	1,686	3,084	1,886	15,355
Other	102	464	759	967	849	1,009	179	4,485
Fertiliser distributors	818	766	2,532	1,805	2,078	1,047	377	9,816
Harvesters, headers and strippers	151	2,434	1,192	2,457	1,111	2,357	1,389	11,385
Forage harvesters ..	47	70	221	189	219	69	29	856
Pick-up balers	145	956	1,140	911	1,257	493	539	5,582

(a) Includes Kangaroo Island and Far North Divisions.



PRODUCTION

AGRICULTURE

Most of the land area of South Australia is arid or semi-arid and cannot be used for agricultural production. This severe natural limitation means that even with modern farming methods only 12 million of more than 160 million acres in rural holdings are devoted to cropping or permanent improved pasture. The area under crop in recent years has varied between 5 and 7 million acres most of which is planted to cereals for the production of grain, hay and forage. About 180,000 acres are used for the production of fruit and vegetables.

The cereals wheat, barley and oats sown for grain account for about 80 per cent of the total area cropped in South Australia. Hay and green forage of all kinds account for about 12 to 15 per cent and the remainder of the area is devoted mainly to orchards, vineyards and vegetable production. Climatic conditions, particularly the relatively low winter rainfall and the dry hot summer, favour cereal growing; one advantage being the low incidence of stem rust, a serious disease in the moister areas of the Australian wheat belt.

The area sown to the more important crops during the last five seasons is given in the following table.

Area Sown to Principal Crops, South Australia

Crop	1967-68	1968-69	1969-70	1970-71	1971-72
	'000 acres				
Grain:					
Wheat	2,864.2	3,748.4	3,209.7	1,982.5	2,640.4
Barley	1,156.6	1,412.3	1,383.6	1,713.6	1,936.4
Oats	524.9	515.6	371.6	481.7	417.2
Rye	57.9	67.4	47.9	48.7	48.4
Hay:					
Oaten	157.8	150.3	101.4	128.1	130.3
Other	271.2	464.6	282.4	356.9	475.8
Green forage	399.5	304.4	310.6	339.8	209.5
Vegetables:					
Potatoes	6.5	7.6	8.0	7.2	6.9
Tomatoes	1.4	1.1	1.2	1.3	1.3
Other	9.6	10.7	12.3	14.6	17.6
Fruit:					
Grapes	58.1	60.6	64.8	68.3	71.1
Oranges	17.5	17.1	17.2	17.1	167.3
Apples	5.9	5.9	5.9	5.9	
Apricots	4.8	4.6	4.4	4.4	
Other	16.9	16.9	17.3	17.9	
Other crops	55.8	88.2	109.5	103.7	
Total area under crop ..	5,608.6	6,875.8	5,947.8	5,291.6	6,122.4

The numbers of holdings growing twenty or more acres of the principal cereals or one acre or more of the principal fruits and vegetables are shown in the following table.

Rural Holdings Growing Principal Crops, South Australia

Holdings (a)	1967-68	1968-69	1969-70	1970-71	1971-72
With 20 acres or more of:	Number				
Wheat	8,905	9,884	9,529	8,548	8,997
Barley	6,850	7,916	7,685	8,254	8,750
Oats	4,979	5,682	4,326	5,105	4,919
With 1 acre or more of:					
Grapes	3,065	3,082	3,173	3,239	3,258
Citrus fruits	1,629	1,574	1,650	1,598	1,449
Other orchard fruits	3,175	3,073	3,360	3,320	3,207
Potatoes	682	722	752	569	503

(a) Holdings growing more than one of the crops shown are counted for each crop.

The extent of fluctuations since 1910 in the area under the three main cereal crops is illustrated by the graph on page 375.

IRRIGATED CULTURE

The most important irrigation areas are those located in the Murray Valley. A description of the development and types of irrigation schemes along the River Murray is given in Part 8.2 pages 328-30. The remainder of the areas under irrigation are located mainly in the Mount Lofty Ranges and South East Divisions.

The following table shows the approximate area of all irrigated culture in South Australia for the seasons 1967-68 to 1971-72. Of the areas shown below, about 70 per cent of orchards, 80 per cent of vineyards and about 15 per cent of green forage and pastures are in the River Murray irrigation areas listed in the table on page 378. The acreage shown as green forage is area cut for green forage and silage.

Area Under Irrigated Culture, South Australia^(a)

Season	Orchards	Vineyards	Vegetables	Green Forage	Other Crops	Pasture	Total
	Acres						
1967-68	32,512	30,616	13,290	7,400	25,738	63,622	173,178
1968-69	32,570	31,108	14,414	6,412	27,990	61,417	173,911
1969-70	33,712	34,998	15,232	5,069	28,438	68,509	185,958
1970-71	34,082	37,991	15,948	4,145	30,139	68,498	190,803
1971-72	32,047	39,148	15,754	(b)	(c) 2,414	(c) 98,630	187,993

(a) Approximations only.

(b) Not collected separately.

(c) Before 1972 lucerne, clovers and grasses cut for hay or harvested for seed was shown in 'other crops'.

The main crops are grapes, citrus fruit and stone fruit in the Upper Murray irrigation areas, and green forage and pastures in the reclaimed swamp areas of the Lower Murray irrigation areas. Details for individual areas in 1971-72 are given in the next table.

**River Murray Irrigation Areas: Area and Production of Principal Crops
1971-72^(a)**

Irrigation Area	Area				Production				
	Green Forage and Pasture (b)	Vineyards		Orchards	Vineyards			Orchards	
		Bearing	Not Bearing		Total Grapes Produced	Grapes Used for Wine	Currants, Sultanas and Raisins Dried	Oranges	Peaches
	Acres	Acres	Acres	Acres	Tons	Tons	Tons	'000 bushels	'000 bushels
Upper Murray:									
Berri	427	4,747	426	3,196	32,331	22,317	2,451	440.6	143.8
Cadell	19	418	18	374	1,811	851	262	60.4	6.0
Cobdogla	191	1,151	62	36	9,265	7,334	456	1.1	0.6
Cooltong	137	484	59	765	4,360	3,894	106	245.1	8.7
Holder	3	254	24	328	1,902	1,798	31	60.8	13.4
Loveday	420	2,066	137	377	16,679	12,159	1,110	64.8	3.3
Loxton	155	3,853	183	2,927	33,605	26,751	1,743	910.7	71.0
Moorook	10	363	88	572	2,407	2,162	64	119.1	12.9
Nookamka	32	1,739	101	180	13,350	9,312	1,018	26.3	1.7
Ral Ral	291	712	92	293	3,994	2,091	492	3.9	36.1
Renmark	1,083	4,961	671	3,474	25,465	15,121	2,667	367.6	296.1
Sunlands	—	155	18	1,539	1,074	1,074	—	620.7	28.0
Waikerie	17	1,592	170	2,346	11,516	10,909	161	520.2	160.2
Other	52	943	133	2,414	5,691	3,865	489	322.4	219.9
Total ..	2,837	23,438	2,182	18,821	163,450	119,638	11,050	3,763.8	1,001.7
Lower Murray:									
Cowirra	1,345	—	—	—	—	—	—	—	—
Jervois	6,938	—	—	10	—	—	—	0.3	—
Monteith	1,684	—	—	—	—	—	—	—	—
Mypolonga	2,082	5	—	909	15	1	4	148.9	22.1
Neeta	976	—	—	—	—	—	—	—	—
Pompoota	1,109	—	—	—	—	—	—	—	—
Other	2,643	—	—	5	—	—	—	—	—
Total ..	16,777	5	—	924	15	1	4	149.2	22.1

(a) Excludes areas and yields of crops grown by irrigation on the River Murray and elsewhere not in the above irrigation areas. (b) Total within irrigated areas, including non-irrigated forage and pastures.

FERTILISERS

Nearly all soils in the agricultural areas of South Australia are deficient in phosphoric acid, and superphosphate is used on both crops and pastures in large quantities to overcome this deficiency. In some areas trace elements (manganese, copper, zinc and molybdenum) are added to the superphosphate to rectify the chronic shortage of these elements.

A summary of the area of crops and pastures treated and the quantities of fertiliser used in 1971 is shown in the following table.

Principal Crops and Pasture Fertilised, South Australia 1971

Type of Crop	Area Fertilised	Super-phosphate	Other	Total	Per Acre
	'000 acres	Tons	Tons	Tons	Cwt
Wheat	2,567	120,340	4,787	125,127	0.98
Barley, oats and rye	2,521	119,768	5,071	124,839	0.99
Vegetables	21	3,462	6,212	9,674	9.36
Fruit trees and vines	73	9,540	8,396	17,936	4.94
Other and unspecified crops	39	2,190	189	2,379	1.21
Total crops	5,221	255,300	24,655	279,955	1.07
Pasture	4,502	242,613	7,771	250,384	1.11
Total	9,723	497,913	32,426	530,339	1.09

The following table shows the area of crops and pastures treated and the quantity of fertiliser used in each division in 1971.

**Use of Artificial Fertilisers: Statistical Divisions, South Australia
1971**

Statistical Division	Crops				Pastures		
	Area Fertilised	Proportion of Total Area Cropped	Fertiliser Used	Fertiliser Used per Acre	Area Fertilised	Fertiliser Used	Fertiliser Used per Acre
	'000 acres	Per cent	Tons	Cwt	'000 acres	Tons	Cwt
Adelaide	34	59.30	7,720	4.49	56	13,696	1.32
Central	1,144	91.16	61,755	1.08	270	11,695	0.83
Kangaroo Island	29	61.51	1,917	1.34	250	13,278	1.06
Mount Lofty Ranges	244	63.26	15,798	1.29	580	35,834	1.14
Murray	1,166	89.48	62,397	1.07	334	18,383	1.10
South East ...	206	47.38	12,520	1.22	2,414	138,826	1.15
Eyre.....	1,786	92.37	91,761	1.03	471	22,726	0.92
Northern.....	551	86.55	23,755	0.86	127	5,940	0.93
Far North	61	87.79	2,332	0.76	—	4	1.06
Total	5,221	85.27	279,955	1.07	4,502	250,384	1.11

The next table gives the area of crops and pastures treated in the State for the years 1962 to 1971.

Use of Artificial Fertilisers, South Australia

Year	Crops				Pastures		
	Area Fertilised	Proportion of Total Area Cropped	Fertiliser Used	Fertiliser Used per Acre	Area Fertilised	Fertiliser Used	Fertiliser Used per Acre
	'000 acres	Per cent	Tons	Cwt	'000 acres	Tons	Cwt
1962.....	4,415	89.52	221,011	1.00	3,750	209,551	1.12
1963.....	4,788	89.01	238,905	1.00	3,993	226,678	1.14
1964.....	4,775	90.25	254,268	1.07	4,714	274,558	1.16
1965.....	4,869	91.99	265,132	1.09	5,093	296,830	1.17
1966.....	5,123	89.30	286,896	1.12	5,237	311,129	1.19
1967.....	5,033	89.73	292,400	1.16	5,130	307,477	1.20
1968.....	6,007	87.37	334,666	1.11	4,270	246,091	1.15
1969.....	5,284	88.84	307,380	1.16	4,962	282,887	1.14
1970.....	4,654	87.96	266,629	1.15	4,788	271,885	1.14
1971.....	5,221	(a) 85.30	279,955	1.07	4,502	250,384	1.11

(a) Not comparable with previous years.

Aerial Agriculture

During recent years less use has been made of aircraft for top-dressing and seeding, for spraying of crops and pastures, and for pest and vermin extermination.

The following table shows details of area treated, materials used and flying time for the five years ended 31 March 1972.

Aerial Agriculture, South Australia

Year	Area Treated			Materials Used		Flying Time
	Fertiliser and Seed	Sprayed	Total (a)	Super-phosphate	Seed	
		'000 acres		Tons	'000 lb	Hours
1967-68	<i>n.a.</i>	237	<i>n.a.</i>	<i>n.a.</i>	217	5,609
1968-69	<i>n.a.</i>	369	856	<i>n.a.</i>	<i>n.a.</i>	4,794
1969-70	609	281	901	39,598	<i>n.a.</i>	6,065
1970-71	<i>n.a.</i>	157	576	23,551	<i>n.a.</i>	4,605
1971-72	<i>n.a.</i>	204	541	17,832	<i>n.a.</i>	<i>n.a.</i>

(a) Includes other type of treatment.
n.a. not available

WHEAT

Wheat has always been a crop of major importance to the economy of South Australia although in recent years this importance has declined in relation to both the value of agricultural and pastoral production.

For the five-year period 1909-10 to 1913-14 wheat averaged 38 per cent of agricultural and pastoral production and 23 per cent of total State production while for the period 1963-64 to 1967-68 the percentages were 22 and 7 respectively. The increase in woolgrowing in the first instance and the rapid industrialisation of the State in the second have been the significant factors in this decline.

South Australia as a wheat producing State now ranks fourth in order of importance, and for the ten harvests ending 1970-71 averaged 13 per cent of Australian wheat production.

In the past twenty years a feature of the industry has been that average yields have fluctuated about a higher level of average yield (*i.e.* about 20 bushels per acre), mainly because of improved farming practices including the adoption of nitrogen-building clovers in the rotation. The average yield per acre for the ten seasons ended 1971-72 was 17.29 bushels, a record of 23.56 bushels being attained in 1960-61. The record wheat crop was 83,160,000 bushels in 1968-69. Production in 1971-72 was 51,696,000 bushels.

Varieties of Wheat

The early wheatgrowers recognised the need to develop varieties of wheat suitable for South Australia's dry conditions and began by experimenting with varieties obtained from countries with a similar climate. Although stem rust, which can be a serious problem in other States, is rarely troublesome in South Australia, breeders still consider rust resistance as important as other qualities such as yield, baking quality and resistance to other diseases.

Of the varieties sown in the 1971-72 season, Heron, Insignia, Halberd and Gabo were the four most important. The main attributes of Heron, the leading variety, are that it is early maturing, has a short strong straw and is easily threshed at harvest without showing any tendency for the grain to crack. Insignia and Halberd have very similar features to Heron. Heron, Insignia and Halberd are classified as fair average quality standard wheat while at present Gabo is the most widely grown hard variety in this State. The similar

climatic requirements of these four leading varieties reflect the suitability of this type of wheat for South Australia. The sharp cut-off of spring rains, the short growing season and strong winds have demanded their particular characteristics.

In each of the Australian States a committee has been set up to examine and recommend the wheat varieties which should be grown by farmers for marketing through the Australian Wheat Board. In South Australia the Advisory Committee on Wheat Quality was established in 1962 to consider advice from the State Department of Agriculture, which carries out tests of wheat varieties being developed and recommends which wheat varieties should be sown by farmers in the various districts. The Department of Agriculture and the Australian Wheat Board want the growers to produce wheat with uniform characteristics in both the Hard class and F.A.Q. class and this can be done more successfully if only a few of the best varieties are grown by the farmers. Up to and including the sowings of wheat in 1970, the State wheat lands were divided into fourteen zones by the Advisory Committee and varieties most suited for sowing in these zones were recommended to farmers.

For the 1971 and subsequent sowings the Advisory Committee adopted a new approach to the basis on which the Committee now recommends wheat varieties for planting in South Australia. The Committee has divided the State into seven wheat growing zones and recommends to farmers only those wheat varieties which are likely to give the best results as far as the protein content of the wheat is concerned, while maintaining a high rate of yield, at the same time.

The leading varieties of wheat sown for all purposes for the years 1969-70 to 1971-72 are shown in the following table.

Principal Varieties of Wheat Sown, South Australia

Variety	Area			Proportion of Total Area		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
	'000 acres			Per cent		
Dirk	140	102	110	4.3	5.0	4.1
Gabo	233	160	258	7.1	7.9	9.6
Gamenya	288	206	188	8.8	10.1	7.0
Halberd	(a)	27	343	(a)	1.3	12.8
Heron	1,288	766	867	39.4	37.6	32.3
Insignia	744	337	374	22.8	16.5	14.0
Raven	150	110	124	4.6	5.4	4.6
Sabre	128	84	94	3.9	4.1	3.5
Other	253	222	—	7.9	10.9	—
Total area ...	3,272	2,037	2,682	100.0	100.0	100.0

(a) Not collected separately.

Wheatgrowing Districts

Wheatgrowing in South Australia is virtually restricted to the belt between the 8 inch and 18 inch rainfall isohyets for the period April-November inclusive. The principal wheat producing districts are in the Eyre, Central, Murray and Northern Divisions. These districts accounted for over 90 per cent of the area sown in 1971-72.

**Wheat Sown for Grain: Area and Production, Statistical Divisions
South Australia**

Statistical Division	Area		Production	
	1970-71	1971-72	1970-71	1971-72
	'000 acres		'000 bushels	
Adelaide	3	3	67	82
Central	413	436	9,442	12,113
Kangaroo Island	1	1	29	23
Mount Lofty Ranges	73	81	1,830	2,326
Murray	363	535	3,088	8,355
South East	57	69	1,134	1,750
Eyre.....	819	1,139	8,715	18,206
Northern	225	329	4,603	8,168
Far North	29	46	120	672
Total	1,983	2,640	29,028	51,696

Research

Under the *Wheat Tax Act 1957-1966* a tax of a quarter of a cent per bushel is levied on all wheat delivered to the Australian Wheat Board. The proceeds are then credited to the Wheat Research Trust Account for use by the respective State Wheat Industry Research Committees. Each committee allocates the amounts available for research and reports the expenditure approved to the Wheat Industry Research Council. The Commonwealth Government also makes contributions for wheat research, up to an amount equal to the wheat tax levied from the growers. The Wheat Industry Research Council recommends the avenue of research on which this grant should be spent and it has currently recommended a broad field of research in wheat production, wheat storage and wheat quality.

Organisations such as the Commonwealth Scientific and Industrial Research Organization and the Department of Agriculture are constantly conducting research into the problems of wheat diseases, producing better wheat varieties and improving soil structure.

Marketing

Australian Wheat Board

The Board consists of fourteen members; a chairman, a finance member, a flour millers' representative and a representative of employees, appointed by the Minister of Primary Industry, and ten representatives of wheatgrowers (two from each mainland State).

The Board has control over the receipt and disposal of all wheat and wheat products including the handling, storage and shipment of wheat. Under the stabilisation plan, the Board is the sole authority for marketing wheat within Australia and for marketing wheat and flour for export.

In its first full season, 1939-40, the Wheat Board received 195 million bushels. For the past eleven seasons wheat receipts have exceeded 200 million bushels with a record delivery of 516 million bushels during 1968-69.

Deliveries to the Australian Wheat Board^(a)

Season	South Australia	Australia	Season	South Australia	Australia
	'000 bushels			'000 bushels	
1962-63	35,121	285,722	1967-68	22,084	247,370
1963-64	51,660	307,837	1968-69	79,447	515,614
1964-65	49,991	346,511	1969-70	55,693	358,143
1965-66	36,160	234,396	1970-71	25,023	254,829
1966-67	50,007	439,236	1971-72	47,987	281,637

(a) Mostly in bulk, but includes weight of bags where used.

During the year ended 30 November 1971 total exports of wheat (including wheat equivalent of flour and wheat products) were 333 million bushels. The value of the Wheat Board's sales on both the local and export market is shown in the following table.

Australian Wheat Board Sales of Wheat and Wheat Flour

Crop Year	Sales		Value	
	Local	Export	Local	Export
	'000 bushels		\$'000	
1961-62	52,371	171,412	82,486	244,990
1962-63	51,180	233,806	81,042	317,292
1963-64	56,613	250,281	82,282	357,660
1964-65	74,730	270,835	108,924	362,337
1965-66	66,869	166,917	101,480	240,654
1966-67	61,229	377,384	94,424	545,928
1967-68	70,031	206,832	114,671	290,101
1968-69	56,011	241,768	95,171	331,530
1969-70	58,863	300,757	91,624	371,720
1970-71	62,574	332,515	97,138	444,674

Wheat Delivery Quotas Plan

In March 1969 the Australian Wheat Growers' Federation put forward proposals to the Australian Agricultural Council for the allotment of quotas on deliveries of wheat to the Australian Wheat Board. The Federation's proposals were mainly designed to bring marketable supplies of wheat more into line with available outlets, following the record 1968-69 harvest. The proposals were approved by the Council and later by the Commonwealth Government and became effective for the 1969-70 harvest with total Australian quotas of 357 million bushels. State Governments had the responsibility of implementing the quota plan within the States. Each State (except Queensland where the legislation operated from 1970) enacted the necessary legislation in 1969. The period of operation of the legislation varies among the States.

The Australian Wheatgrowers Federation successfully recommended in February 1971 that the total wheat quotas for Australia in the 1971-72 season should be 339 million bushels. The 1972-73 quotas were approved at 407 million bushels. The quotas for South Australia were 40 and 46 million bushels respectively.

Deliveries in 1970-71 and 1971-72 made within the quotas established received the usual first advance payment of \$1.10 per bushel for f.a.q. bulk wheat, f.o.r. ports basis. The same arrangement applies to 1972-73 season quota wheat.

The States were responsible for determining the method of allocation of individual quotas within their respective boundaries. In South Australia, Parliament enacted the Wheat Delivery Quotas Act, 1969 which instituted a Wheat Delivery Quota Advisory Committee consisting of eight members representing wheat growers and one representative each from the Wheat Board, the South Australian Co-operative Bulk Handling Limited and the Department of Agriculture. A Review Committee of three members was also provided to deal with the appeals by growers against the quota quantities allotted to them.

The basis on which quotas were allocated in South Australia for the 1969-70 season was the average quantity of wheat obtained after listing deliveries from the various farm properties to the Australian Wheat Board during the five-year period from 1964-65 Season to 1968-69 Season, less 10 per cent.

The Act permitted the Quota Advisory Committee to grant special quotas in certain financial hardship cases involving sickness, or National Service training, and in cases where growers were affected by drought or excessive rain during the five-year period, and those who had heavy financial commitments as a result of developing land for wheat growing. The Act provides for quotas to be allotted only to growers who were owners of the wheat farming properties and to lessees, but not to people who were simply share-farmers.

Before establishing the nominal quotas to apply for the 1970-71 season, the Advisory Committee reviewed the cases in which special quotas were issued in the 1969-70 season and in many cases reduced the quota quantities to what were considered to be more correct quota allocations.

Bulk Handling

The South Australian Co-operative Bulk Handling Ltd which was incorporated on 7 December 1954 is the sole bulk grain handling authority in this State, and is owned, financed and controlled by the growers. At 31 December 1972 the Co-operative had a total storage capacity, including current contracts let, of 120.6 million bushels (108.3 million bushels permanent storage and 12.3 million bushels emergency storage).

South Australia was the last of the major cereal-growing States to adopt bulk handling methods. However, the success of the first bulk installation at Ardrossan of one million bushels capacity, which began operating in 1952, encouraged rapid development. The Co-operative purchased the Ardrossan silo from the Australian Wheat Board after the Bulk Handling of Grain Act, 1955 was passed giving the Co-operative the exclusive right to handle bulk grain in South Australia.

Finance for the construction of storages came initially from a bank advance, and in addition growers who were members of the Co-operative were required to pay a toll of 1.7 cents for each bushel delivered to the silo in the first year. Thereafter the toll for members and charge for non-members was 5 cents per bushel (4 cents in 1972-73) and 3.4 cents per bushel respectively. After twelve years of membership, members are gradually refunded all tolls paid. The first repayment of wheat tolls was made in June 1968 to growers who paid tolls in the 1955-56 season. From time to time further bank advances have been obtained to accelerate the building programme to meet the increased demand for storage space.

The bulk handling operations of the State have been divided into six divisions—Ardrossan, Wallaroo, Thevenard, Port Lincoln, Port Pirie and Port Adelaide—each of which provides a terminal port as a shipping outlet for the country silos within the division.

The bulk capacity of the respective divisions for each of the three major cereals is shown in the following table.

Bulk Handling Capacity, South Australia
31 December 1972^(a)

Division	Wheat		Barley		Oats	
	Permanent	Emergency	Permanent	Emergency	Permanent	Emergency
	'000 bushels					
Port Adelaide.....	23,297	1,900	7,173	44	496	116
Ardrossan.....	6,349	—	7,099	397	—	—
Walleroo.....	12,466	—	2,372	701	—	—
Port Pirie.....	11,345	2,792	1,570	—	—	—
Port Lincoln.....	20,696	3,505	5,304	101	99	—
Thevenard.....	8,784	2,351	1,168	—	99	408
Total.....	82,937	10,548	24,686	1,243	694	524

(a) Includes current contracts let.

During the 1971-72 season the Co-operative received 48 million bushels of bulk wheat representing almost 100 per cent of total State deliveries.

A certified claim showing particulars of the wheat received from a grower is forwarded by the bulk handling authority to the Australian Wheat Board, which then makes payment to the grower.

Under the system of pooling wheat, the cost of handling wheat by the Co-operative is reimbursed by the Wheat Board.

Grading of Wheat

The grading of wheat for export is based on a fair average quality (f.a.q.) standard. A separate standard is determined for each of the four main wheat producing States by a committee of representatives of the Wheat Board, bulk handling authorities, State Departments of Agriculture, farmers, millers and shippers. Samples of wheat from the several wheatgrowing districts are mixed in the proportion grown in the districts and the f.a.q. weight is determined from the sample. These weights are used as a guide in determining standards of wheat delivered to the Wheat Board.

Since 1957-58 in South Australia, two standards have been fixed in each season with the exception of the 1960-61 and 1966-67 seasons when three standards were fixed.

Currently the two standards are known as F.A.Q. and Hard (called Semi-hard before December 1966), the latter being used for wheat of a better quality meeting two main requirements—that the type of wheat is one of a number of specified hard varieties and secondly, that it is of a uniform vitreous appearance of which not more than 10 per cent is mottled or bleached. Because of hard wheat's better baking qualities, resulting in a keener overseas demand, growers of this grade receive a premium of up to 5 cents per bushel. Growers delivering inferior wheat (grain containing excessive foreign matter) or lightweight wheat receive reduced payments per bushel.

This method of setting f.a.q. standards for export marketing is peculiar to Australia, as other countries sell to fixed grades or according to sample. The standards adopted in each of the ten seasons 1962-63 to 1971-72 are shown in the next table.

F.A.Q. Standards of Wheat, South Australia
(Weight in lb of a bushel of wheat)

Season	F.A.Q.	Hard	Season	F.A.Q.	Hard
1962-63	62 $\frac{3}{4}$	63 $\frac{3}{4}$	1967-68	62 $\frac{3}{4}$	63
1963-64	64 $\frac{1}{2}$	64 $\frac{1}{4}$	1968-69	63 $\frac{3}{4}$	63 $\frac{3}{4}$
1964-65	62 $\frac{3}{4}$	63	1969-70	63	62 $\frac{3}{4}$
1965-66	63	62 $\frac{1}{2}$	1970-71	63	62 $\frac{1}{4}$
1966-67 (a)	62	64	1971-72	62 $\frac{3}{4}$	61 $\frac{1}{2}$

(a) A third standard of No. 1 off-grade—57 $\frac{3}{4}$ lb—was fixed in 1966-67.

Wheat Stabilisation Plan

Wheat grown in Australia is marketed under a government stabilisation scheme which provides for the fixing of a home consumption price for each season, the pooling of the proceeds of local and overseas sales, the guarantee of a minimum price varied by changes in costs of production and the operation of a stabilisation fund into which are paid the proceeds of a tax on exports.

The first post-war Wheat Stabilisation Plan operated between 1948 and 1953. Subsequent stabilisation plans were introduced in 1954 (for seasons 1953-54 to 1957-58), 1958 (for seasons 1958-59 to 1962-63), 1963 (for seasons 1963-64 to 1967-68) and 1968 (for seasons 1968-69 to 1972-73).

In the third year of the present plan the Commonwealth Government guaranteed to growers a price of \$1.475 per bushel as compared to \$1.459 in 1969-70 for average quality wheat of the 1970-71 season on up to 200 million bushels of wheat exported from the crop. In fixing the guaranteed price for subsequent seasons the Minister can vary the price by the amount he considers appropriate by reason of increases or decreases in prices, wages or rates of charges (including rates of interest) payable in connection with (i) the carrying on of operations wholly or partly for the purposes of the production of wheat; or (ii) the transport, handling or storage of wheat. The home consumption price on or after 1 December 1970 is \$1.74 per bushel for f.a.q. bulk wheat f.o.r. at a port of export, plus one cent per bushel to cover the cost of transporting wheat from the mainland States to Tasmania.

Under the *Wheat Export Act* 1968, wheat exported is subject to a tax which is equivalent to the excess of returns from export sales over the guaranteed price, plus 5 cents. The export tax, which is paid into the stabilisation fund, is restricted to a maximum rate of 15 cents per bushel. In addition the balance in the stabilisation fund may not exceed \$80 million, any surplus being returned to the growers.

The stabilisation fund is used to make up deficiencies in respect to 200 million bushels from each crop where the average export realisation falls below the guaranteed return. In the event of the fund being unable to meet the deficiency the Commonwealth Government is required to meet its obligations under the guarantee.

International Grains Agreements

The fifth International Wheat Agreement came into effect on 1 August 1962 for a period of three years, but was extended until 31 July 1968. Under this agreement the participating importing countries undertook to buy each year from

the exporting countries a stated percentage of their total commercial import requirements. Previously, participating exporting countries competed to supply at prices within a prescribed range but under a provision of this agreement it was not necessary for a maximum price declaration to be made.

The International Grains Arrangement, 1967 embraced a Wheat Trade Convention and a Food Aid Convention and came into force on 1 July 1968 for a period of three years. The Arrangement covered new ground in its pricing provisions; whereas the 1962 International Wheat Agreement specified a maximum and minimum price for one wheat, the new Arrangement specified maximum and minimum prices for fourteen wheats. The Food Aid Convention of the Arrangement provided for a programme of food aid amounting to 4.5 million metric tons of grain for human consumption in each of the three years of the Arrangement.

The new agreement, the International Wheat Agreement 1971, has a life of three years from 1 July 1971. Like the International Grains Arrangement, the Agreement comprises two separate legal instruments, the Wheat Trade Convention and the Food Aid Convention, linked by a common preamble.

The Wheat Trade Convention 1971 ensures that the machinery for consultation and co-operation on wheat marketing existing under earlier Agreements will be maintained. The administrative body, the International Wheat Council, continues in existence. The Convention provides for the continuation of the full reporting and recording of all commercial and concessional transactions in wheat and flour. There is an important departure from earlier agreements in that the latest Wheat Trade Convention contains no specific pricing provisions. However, the Convention specifically provides that when it is judged that prices and related rights and obligations are capable of successful negotiation, the International Wheat Council shall arrange a further conference with the objective of bringing them into effect within the life of the Convention.

A newly established Advisory Sub-Committee on Market Conditions will keep the wheat market under continuous review. This Sub-Committee will report to the Executive Committee of the Council if it considers that a situation of market instability has arisen, or threatens to arise. The Executive Committee will then review the situation and try to find mutually acceptable solutions.

With the entry of U.S.S.R. and Brazil which were not members of the 1967 International Grains Agreement all major wheat trading nations except the People's Republic of China participate in the Wheat Trade Convention. The membership accounts for over 95 per cent of the world trade in wheat.

The new Food Aid Convention is basically unchanged from its predecessor. Under this Convention a number of developed countries, importers and exporters alike, will continue to provide developing countries with food aid in the form of grains or flour for human consumption. Australia's contribution will remain unchanged at 225,000 tons annually. Since the new convention has fewer members and total annual contributions have fallen from 4,259,000 metric tons to 3,974,000 tons, Australia's share has risen marginally to 5.6 per cent.

Several minor changes have been incorporated in the new Food Aid Convention. A new clause provides that in exceptional cases, and on request, limited quantities of rice may be included in the programme. Also, sales on credit terms of twenty years or more will be eligible to be counted against aid commitments provided that maximum use is made of the other eligible forms of aid such as grants and sales for non-transferable local currency.

Prices

The table below shows the trend in export and domestic prices of Australian wheat for the years 1962-63 to 1971-72.

Export and Domestic Prices of Australian Wheat

Year	Export Price per Bushel (a)	Home Price per Bushel
	\$	\$
1962-63	1.44	1.59
1963-64	1.53	1.46
1964-65	1.43	1.47
1965-66	1.43	1.53
1966-67	1.54	1.57
1967-68	1.43	1.66
1968-69	1.34	1.71
1969-70	1.31	1.73
1970-71	1.40	1.74
1971-72	1.54	1.78

(a) Average of the twelve monthly prices, year ended July (From 1 December 1970, year ended November).

The export prices shown in the table are the basic selling prices for f.a.q. bulk wheat, f.o.b. The home prices are those set by the Wheat Board for bulk wheat (f.o.r.) sold to millers for grinding into flour for consumption in Australia. The prices charged by the Board for wheat for stock feed in Australia were the same as those charged for wheat for human consumption. However, from 1 December 1969 the pricing arrangements for wheat sold in Australia underwent a change with the result that different prices were established for the various avenues of local sales and these prices were annually amended. Since that time the following f.o.r. port terminal prices have applied for f.a.q. bulk wheat.

f.o.r. Port Terminal Prices for f.a.q. Bulk Wheat

Particulars	Year ended 30 November		
	1970	1971	1972
	Price per Bushel (dollars)		
Basic home consumption price	1.725	1.74	1.78
Milling (for home consumption flour).....	1.645	1.66	1.70
Stockfeed/industrial purposes	1.435	1.45	1.49
Stockfeeders (not acceptors of Wheat Board contract arrangements).....	1.500	1.55	1.60

BARLEY**Production**

In 1970-71 the acreage sown to barley in South Australia represented 35 per cent of the Australian total and yielded 32 per cent of the grain produced. Of the area sown in South Australia, 97 per cent was 2-row barley for grain, reflecting the suitability of certain areas of the State for the production of high quality malting barley. For malting purposes a plump mellow grain with fine skin coverings is required, and this can best be obtained when the ripening period is somewhat prolonged by cool conditions, without high temperature or drying winds.

Although formerly a crop of comparatively minor importance, barley growing increased greatly after the 1939-45 War. For the three consecutive harvests,

1956-57 to 1958-59, there were more bushels of barley than bushels of wheat produced, but actual weight was less since a bushel of barley weighs only 50 lb compared with 60 lb for a bushel of wheat. A record production of 46.2 million bushels was achieved in 1971-72.

Area and Production of Barley for Grain: Statistical Divisions, South Australia

Statistical Division	Area		Production	
	1970-71	1971-72	1970-71	1971-72
	'000 acres		'000 bushels	
Adelaide	13	12	390	433
Central	586	637	15,152	19,262
Kangaroo Island	7	10	176	227
Mount Lofty Ranges	65	76	1,795	2,348
Murray	402	450	4,080	8,274
South East	61	63	1,199	1,694
Eyre	465	525	7,461	9,957
Northern	110	152	2,452	3,759
Far North	5	12	32	201
Total	1,714	1,936	32,738	46,156

Unlike wheat, barley growing has nearly always been confined to very suitable districts resulting in high and remarkably stable yields. During the period 1901-02 to 1935-36 the highest yield was 20.00 bushels an acre and except for the severe drought of 1914-15 the lowest was 13.67 bushels an acre. The subsequent increase in barley growing in districts subject to greater climatic variations, *e.g.* Murray Mallee and Eyre Peninsula, has been responsible for greater average yield fluctuations since 1936-37 but over the period the average yield has increased, the record yield being 28.27 bushels per acre in 1958-59. The average yield in 1971-72 was 23.84 bushels.

Yorke Peninsula, reputed to be the best barley growing area in Australia, has been the major producing district in South Australia since the 1914-18 War. In the 1971-72 season this area contributed just over 32 per cent of the total crop. It has an ideal climate for barley growing as the moisture-laden breezes off the gulfs on either side retard ripening.

Varieties

The most widely grown barley variety before 1970-71 was Prior, which for the three seasons ended 1969-70 averaged about 60 per cent of the total area sown. Prior is capable of producing grain of very high malting quality under favourable conditions but it suffers from two major deficiencies—it is susceptible to neck break and shattering if strong winds are experienced when the crop is nearly ripe and it is not well adapted to conditions of high soil fertility.

Another variety, known as Noyep, is similar to Prior but is earlier maturing and is suitable to areas where a sudden cut-off in spring rainfall is experienced. These characteristics resulted in a significant switch to this variety from one per cent in 1961-62 to 30 per cent of total area sown in 1968-69.

Other varieties of less importance are Maltworthy, which is more resistant to wind damage than Prior but of inferior commercial malting quality, and Research, much later maturing than Prior, which is recommended only for the lower South East.

A new malting variety, Clipper, was released in South Australia to replace Prior and it was estimated that some 15,000 bags of Clipper seed were sown in

1969. Reported acreage sown to Clipper in the 1969-70 season was 53,000 acres, in the 1970-71 season 815,000 acres and in the 1971-72 season 1,264,000 acres. The variety has greater straw strength, much less subject to wind damage, is adapted to conditions of high soil fertility and in tests produced substantially higher yields than Prior. These features together with improved malting quality represent considerable advantages for the grower and the industry as a whole.

In 1971-72 Clipper was the most widely grown variety accounting for 63 per cent of total area sown to barley. The percentage sown to Prior and Noyep dropped to 16 and 14 per cent respectively.

Research

The barley research programme is conducted by the Department of Agriculture and the Waite Agricultural Research Institute for which the Australian Barley Board provides financial support. Because of the inherent similarities, the barley industry has in many instances benefited from the technological advances achieved by the wheat industry, namely the use of superphosphate and the inclusion of pastures in rotation, but certain problems peculiar to barley have necessitated the undertaking of extensive research.

The deficiencies of the major variety Prior have been the subject of intensive investigation and research work by the Department of Agriculture. To overcome weaknesses in the straw of Prior which is responsible for the heavy loss of grain when crops are almost ripe, two methods known as windrowing and rolling have been devised. The aim of both methods is to lay the crop down out of the wind at a time when grain formation is completed, but before the straw is dry enough to be brittle.

Another problem causing concern is the unfavourable effect increased soil fertility is having on quality. This has been most noticeable on Yorke Peninsula where the increased use of clover pastures and heavier dressings of superphosphate have greatly increased soil fertility. Excess nitrogen induces rank growth which is detrimental to grain quality.

Research is continuing at a number of sites in the main barley growing areas, to establish correct times and rates of seeding for the variety of Clipper and a new variety Ketch is being grown on selected holdings to provide seed for replacement of the variety Noyep.

Marketing

The marketing of barley is under the control of the Australian Barley Board which operates in South Australia and Victoria and provides an orderly marketing system for barley grown in these States.

Australian Barley Board Receivals, South Australia

Season	2-Row			6-Row		Total
	Malting	Milling	Feed	Malting	Feed	
	'000 bushels					
1963-64	5,621	8,036	6,343	12	348	20,360
1964-65	6,947	10,211	5,166	30	269	22,623
1965-66	1,151	2,923	9,115	8	100	13,297
1966-67	5,122	8,974	4,397	34	194	18,721
1967-68	126	864	6,099	—	33	7,122
1968-69	5,539	8,033	7,365	29	401	21,367
1969-70	3,529	6,472	13,736	22	228	23,988
1970-71	4,786	6,621	15,136	17	133	26,693

In the first season of South Australian and Victorian joint marketing in 1942-43 the Board received 3,810,000 bushels. Since then, barley receivals have increased considerably and in the 1960-61 season the Board received a record total of 44,624,000 bushels. Receivals by the Board in 1970-71 were 36,499,000 bushels (35,381,000 bushels in bulk and 1,118,000 bushels in bags). Since 1966-67 receivals of bulk barley have been greater than receivals of bagged barley.

The Board has been able to dispose of each season's receivals with little difficulty. Major export markets are Europe, the Middle East, Japan and the United Kingdom.

Following recommendations submitted in a report by an investigating committee in October 1963 a bulk handling scheme for barley was introduced. In 1963-64, the first full year of its operation, bulk barley was received direct from growers at terminal ports in South Australia, and a total of 1,172,113 bushels was handled; 25,594,000 bushels were handled in 1970-71. In 1964-65 bulk barley was received for the first time at other than terminal silos.

For marketing purposes all barley is classified on sample before delivery. Classification is firstly by row variety and secondly by quality—Malting (No. 1 and No. 2), Milling (No. 3) and Feed (No. 4 and No. 5) for 2-row and Malting and Feed (No. 4 and No. 5) for 6-row.

The prices paid to growers in the 1970-71 season ranged from \$1.136 a bushel for 2-row bagged barley of Malting No. 1 quality to \$0.856 a bushel for 6-row bagged barley of No. 5 (feed) quality. Growers who delivered barley in bulk received 4 cents less a bushel.

The payments to the growers are made in a series of four advances; in 1970-71 the first was 87 cents a bushel for first quality bagged barley and 83 cents for bulk barley being made on delivery.

The price of malting barley is determined on the basis of an agreed formula and subsequently the prices of barley for distilling and pearling are calculated—the prices for feed purposes are determined monthly.

The home consumption prices determined by the Board for barley for season 1970-71 and preceding years are shown below.

Price per Bushel of Barley for Home Consumption

Season	Malting No. 1	Distilling and Pearling No. 3 Grade	Feed No. 4 Grade	Feed No. 5 Grade
Bagged Barley				
Dollars				
1965-66	1.44	1.36	1.18	1.13
1966-67	1.51	1.43	1.25	1.20
1967-68	1.54	1.46	1.33	1.27
1968-69	1.50	1.42	1.18	1.13
1969-70	1.50	1.42	0.93	0.88
1970-71	1.53	1.45	1.23	1.18
Bulk Barley				
1965-66	1.34	1.26	1.10	1.05
1966-67	1.41	1.33	1.17	1.12
1967-68	1.45	1.37	1.25	1.19
1968-69	1.42	1.34	1.10	1.05
1969-70	1.42	1.34	0.85	0.80
1970-71	1.45	1.37	1.15	1.10

OATS

The following table shows the area of oats sown for grain, for hay and for forage and the production of grain and hay in recent years.

Oats, South Australia

Season	Area Sown for			Total Area	Production	
	Grain	Hay	Forage		Grain	Hay
	'000 acres				'000 bushels	'000 tons
1964-65	444	110	397	951	8,977	157
1965-66	455	112	404	971	5,622	118
1966-67	509	135	314	958	10,276	183
1967-68	525	158	287	969	3,299	114
1968-69	516	150	187	853	11,895	238
1969-70	372	101	207	680	6,665	154
1970-71	482	128	217	827	8,408	177
1971-72	417	130	139	687	9,138	201

The milling qualities of most oats grown in South Australia do not meet the requirements of overseas markets and only a small proportion of the harvest is exported; most of the crop is used as animal fodder. As is the case with barley, some of the area sown for grain and hay is grazed until June or July then closed to sheep to allow re-growth to a crop. Part of the area sown for forage is left to stand until it is used as dry grazing in autumn, when other fodder is not plentiful. In 1971-72, 82 per cent of the total area of oats was sown in four varieties—Swan 198,000 acres, Avon 179,000 acres, Irwin 111,000 acres and Kherson 76,000 acres.

RYE

Rye is a minor crop, but it has been used to control sand drift and to help 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 and a few bushels of grain per acre is produced on some farms. Although most grain is used for stock feed, varying quantities are exported in different years for milling. Rye hay is poor quality material and only a few hundred tons are produced each year.

In 1971-72, 48,000 acres of rye for grain yielded 295,000 bushels. Record production was 446,000 bushels from 57,000 acres in 1958-59.

HAY

The quantity of hay produced varies considerably from year to year according to seasonal conditions and the need to replace stocks used during the previous season. The main crops cut for hay in recent years have been oats, clover and grass hay which together account for more than half of all hay produced. The quantity of lucerne hay produced increased from a few thousand tons twenty-five years ago to 122,000 tons in 1966-67 and 173,000 tons in 1971-72.

Hay: Area and Production, South Australia

Season	Oaten	Wheaten	Lucerne	Barley and Rye	Clover and Grass	Total
AREA ('000 acres)						
1964-65	110	40	43	11	110	314
1965-66	112	46	38	15	88	299
1966-67	135	48	67	19	213	482
1967-68	158	81	49	42	100	429
1968-69	150	53	78	38	296	615
1969-70	101	55	67	25	136	384
1970-71	128	47	81	34	196	485
1971-72	130	38	91	24	323	606
PRODUCTION ('000 tons)						
1964-65	157	60	81	13	176	487
1965-66	118	54	66	14	116	368
1966-67	183	65	122	21	339	729
1967-68	114	68	97	30	110	418
1968-69	238	86	153	47	461	985
1969-70	154	86	134	31	204	608
1970-71	177	65	160	38	303	743
1971-72	201	60	173	31	501	966

Between 50,000 and 100,000 tons of silage are produced in most years and in certain areas this is an important supplementary stock food; in 1971-72 production was 58,000 tons.

VEGETABLES

The market garden industry in South Australia is characterised by a large number of growers, most of whom cultivate a few acres only. Many of the gardens form part of a larger holding. Much of the production of the industry comes from properties within easy reach of the Adelaide market.

Of the total area of 25,800 acres devoted to market gardens, districts adjacent to Adelaide account for 11,000 acres producing all types of vegetables, including large quantities of celery and early tomatoes for export. An area of some 1,000 acres in Northern Division (mainly on the coastal plains near Port Pirie) is used for the production of peas and early tomatoes for Adelaide and for export to the Melbourne market. Nearly 3,000 acres along the River Murray are devoted to production of peas, pumpkins and melons for the Adelaide market, tomatoes for local markets and small areas of most other vegetables.

The bulk of the potato production comes from the central and southern Adelaide hills and from the Mount Gambier area. The average yield has risen progressively from 5.5 tons an acre in 1947-48 to a record of 10.3 tons an acre in 1971-72. This improvement is largely because of better quality seed, improved fertilisers and advances in pest and disease control.

The South Australian Potato Board was constituted under authority of the Potato Marketing Act, 1948, to control the sale and delivery of potatoes by growers. It fixes the maximum and minimum prices and the conditions under

which potatoes may be sold. Members of the Board are representatives of retail sellers, merchants and growers of potatoes.

In 1971-72, 8,402 acres were sown to green peas in the South East Division for factory processing. Production of green peas from this acreage accounted for about 94 per cent of the total crop. The Port Pirie-Mambray Creek area, the hills to the south of Adelaide and Upper Murray irrigation areas are other important areas for pea production.

Celery produced in South Australia meets a steady demand from interstate markets and production has been about 200,000 crates annually for the past few years although production was 290,000 crates in 1971-72. Nearly all the celery is grown on the Adelaide plains adjacent to the city.

The Adelaide plains produce most of the South Australian tomatoes which are grown in glass houses. Significant quantities, mostly for canning and juice production in local factories, are now grown in the Upper Murray irrigation areas. In recent years high yields have resulted from the introduction of new varieties.

The following table shows the area and production of the principal vegetables for human consumption in South Australia in 1970-71 and 1971-72.

Vegetables for Human Consumption, South Australia

Vegetable	Area		Unit of Quantity	Production	
	1970-71	1971-72		1970-71	1971-72
	Acres				
Beans	258	465	bushel	42,298	58,974
Cabbages	500	528	dozen	248,161	270,607
Carrots	606	713	ton	7,101	7,370
Cauliflowers	688	659	dozen	314,069	286,978
Celery	255	255	crate	203,724	196,138
Lettuce	547	521	case	279,786	319,667
Melons	345	285	ton	1,877	1,221
Onions	2,229	2,221	ton	24,054	25,910
Peas	7,156	9,807	bushel	911,947	1,928,925
Potatoes	7,160	6,858	ton	71,380	70,608
Pumpkins	944	874	ton	8,597	5,426
Tomatoes	1,281	1,253	half-case	1,918,788	1,977,634
Turnips	215	223	ton	1,114	1,106
Other	812	1,077	..	..	..
Total	22,995	25,754		..	..

.. not applicable

GRAPES

Approximately 43 per cent of Australia's vineyard area is located in South Australia where the bulk of the grapes grown are used for winemaking. In 1970-71 South Australia produced 37.2 million gallons of wine and 4,463 tons of dried vine fruit representing 68 per cent and 8 per cent respectively of total Australian production. The following table shows the area, production and utilisation of grapes for the seasons 1962-63 to 1971-72.

Area, Production and Utilisation of Grapes, South Australia

Season	Area of Vines	Total Grape Production (Fresh)	Wine Production (a)	Dried Fruit Production		
				Currants	Sultanas	Raisins
	Acres	Tons	'000 gallons		Cwt	
1962-63	58,266	164,808	20,785	52,140	187,420	32,720
1963-64	58,679	211,719	27,102	90,660	244,820	18,360
1964-65	58,857	234,297	28,022	100,875	264,054	62,440
1965-66	58,730	183,802	23,884	63,063	193,794	44,498
1966-67	57,080	225,416	29,324	75,452	248,288	22,597
1967-68	58,129	201,228	30,055	62,243	91,949	12,051
1968-69	60,574	217,536	36,186	45,226	31,555	3,290
1969-70	64,837	268,020	43,301	66,502	58,675	4,709
1970-71	68,346	221,070	37,233	62,999	22,282	3,984
1971-72	71,090	234,483	40,014	60,973	157,068	12,459

(a) Excludes grape spirit added.

Grapes are grown commercially in South Australia in non-irrigated areas of 19 to 26-inch rainfall, and in much drier areas (frequently with less than a 10-inch rainfall) where irrigation is available (e.g. Upper Murray irrigation areas). The following table gives particulars of area of vines and production of grapes in the main statistical divisions in 1971-72.

Area and Production of Vines: Statistical Divisions, South Australia
1971-72

Statistical Division	Area		Production of Fresh Grapes			
	Bearing	Not bearing	Wine	Table	Drying	Total
	Acres		Tons			
Adelaide	8,630	2,123	20,692	54	351	21,097
Mount Lofty Ranges	21,396	3,811	52,888	16	555	53,459
Murray	27,761	3,693	144,901	1,749	42,904	189,554
South East	1,221	2,208	2,454	—	—	2,454
Total (a)	59,118	11,972	221,168	1,820	43,814	266,802

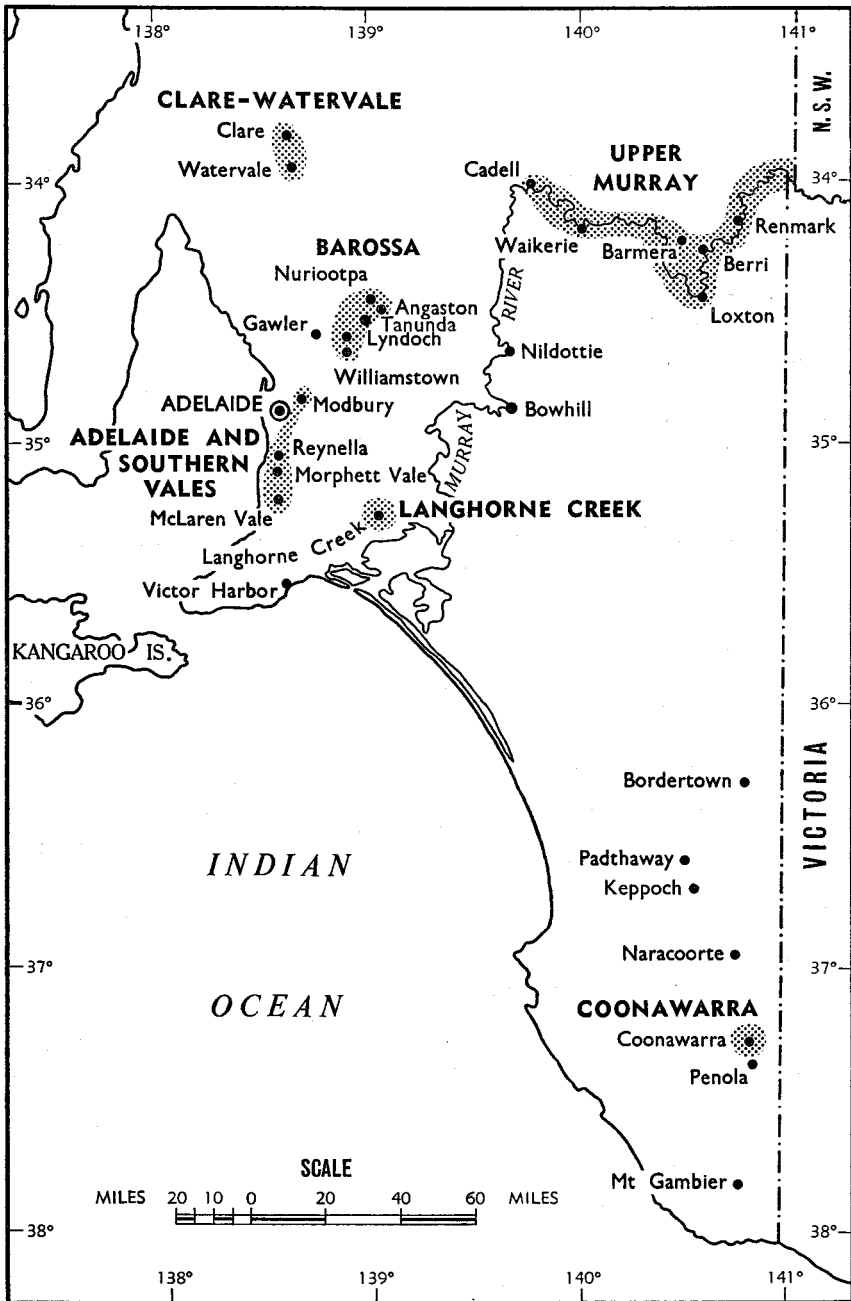
(a) Includes remainder of divisions.

Grape Growing Districts

The grape growing districts of South Australia are subject to substantial variety in geographical location, climatic variations and soil conditions and can be divided into six easily recognisable regions (see map on page 396) ranging from the Clare-Watervale district in the north to the southern limit of the grape growing area at Coonawarra in the south-east of the State and bounded by the warm irrigated areas of the Murray to the east.

Supplementary irrigation is to be found in some portions of the so-called non-irrigated grape growing districts especially Langhorne Creek and Coonawarra where approximately 50 to 60 per cent of all grapes are under irrigation. The other areas are mainly dependent on winter rainfall stored in the sub-soil by careful dry-farming methods to be used during the summer growing season of the vine—the non-irrigated districts are less uniform than the Upper Murray irrigation areas.

PORTION OF SOUTH AUSTRALIA GRAPE GROWING DISTRICTS



Area of Vineyards, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	Acres				
Vines:					
Bearing age	53,390	53,213	53,568	55,342	59,118
Not yet bearing..	6,820	7,361	11,269	13,004	11,972

District average yields in the irrigated areas are 7 to 8 tons an acre although individual vineyard yields of 15, and even 20 tons an acre are not uncommon. In the non-irrigated districts the average is 1.5 to 3 tons an acre with individual vineyards producing 8 to 10 tons an acre in favourable years. About half of the State's wine-grapes are sold by private treaty to proprietary wine-makers at prices, according to variety, which are determined by the South Australian Commissioner for Prices and Consumer Affairs.

About one-third of the State's wine-grape crop is received by the co-operative wineries. Nearly all of this is grown by members who receive a down payment on each ton, followed by further payments over a period of up to five years according to realisation made on the product. Most of the wine, brandy and spirit made by co-operatives is sold in bulk to proprietary wineries.

Production of Grapes, South Australia^(a)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	Tons				
Grapes:					
For wine	170,581	202,937	240,393	205,229	221,168
For table	1,031	587	1,294	1,041	1,820
For drying	29,616	14,012	26,333	14,800	43,814

(a) Classified according to purpose for which grapes are used.

Grape Varieties

The most common grape varieties in South Australia include sultana and currant which can be used for dried fruit as well as wine or spirit production. Production of sultanas in 1971-72 from 7,932 acres of bearing sultanas was approximately 55,779 tons. The main wine-grape variety, grenache, produced 40,640 tons from 11,253 acres of bearing vines but since three-quarters of the grenache is grown in non-irrigated districts where yields are lower, the total crop was less than that of the sultana.

Another leading variety is Muscat Gordo Blanco, or more commonly Gordo in the River districts and often called Muscatel when sold as a table grape. Although known as a drying variety, more than 90 per cent of it is crushed for wine or spirit production.

Riesling and Cabernet Sauvignon (7,063 and 3,552 acres respectively in 1972), while not leading in acreage, are most important in white and red table wine production because of their superior quality.

Principal Varieties of Vines, South Australia

Variety	March 1969	March 1970	March 1971	March 1972
	Acres			
Sultana	8,727	8,583	8,262	8,037
Muscat Gordo Blanco	5,360	5,385	5,263	5,174
Currants	3,356	3,224	3,093	3,006
Grenache	11,383	12,170	12,770	13,029
Shiraz	6,677	8,320	9,787	10,926
Doradillo	4,660	4,724	4,680	4,705
Palomino (Paulo, Listan).....	6,511	6,567	6,639	6,601
Common Palomino (a).....				
Pedro Ximinez.....				
Semillon (b)	5,199	5,870	6,322	7,063
Rhine Riesling				
Clare Riesling				
Mataro	2,986	3,295	3,538	3,720
Other.....	5,718	6,700	7,974	8,825
Total	60,574	64,837	68,332	71,090

(a) Includes False Pedro.

(b) Includes Madeira.

Less than one per cent of the total crop is sold each year as table grapes as the majority of table grapes are grown in home gardens.

A special article on the wine industry in South Australia was included on pages 375-96 of the *South Australian Year Book* 1968.

ORCHARD FRUIT

A large variety of fruit crops is grown in South Australia. The main types are oranges, peaches and apricots (predominantly grown in the irrigation settlements of the Upper Murray) and apples (nearly all grown in the Adelaide Hills). The following table relating to 1971-72 production shows the concentration of fruitgrowing in the Adelaide, Mount Lofty Ranges and Murray Divisions.

Production of Principal Fruit Crops: Statistical Divisions, South Australia
1971-72

Fruit	Statistical Division				Total
	Adelaide	Mount Lofty Ranges	Murray	Other	
	'000 bushels				
Citrus fruit:					
Oranges;					
Navel	3.1	2.2	2,034.4	17.3	2,057.0
Other.....	3.5	0.3	2,602.4	18.1	2,624.3
Other citrus fruit	11.6	0.2	586.5	5.1	603.4
Non-citrus fruit:					
Apples.....	376.5	769.8	26.5	4.2	1,177.0
Apricots	19.1	61.5	1,006.4	6.4	1,093.4
Peaches	9.2	17.4	1,242.2	8.6	1,277.4
Pears	93.5	142.9	339.1	2.1	577.6
Plums and prunes	22.8	32.0	18.6	0.6	74.1

Citrus growing is concentrated in the irrigation settlements of the Upper Murray where approximately 80 per cent of the total crop is produced. The industry has shown great expansion in the last decade; production first exceeded 2,500,000 bushels in 1962-63 while in 1970-71 a record level of 5,883,000 bushels was achieved. Production in 1971-72 was 5,285,000 bushels. The increase during the decade was largely because of the extensive orange tree plantings in newly-developed irrigation schemes, including those of Sunlands and Golden Heights near Waikerie.

Another factor has been a change from furrow to overhead sprinkler irrigation for citrus trees planted since 1950. This change, together with advances in irrigation timing techniques, has raised the potential yield of recent plantings. High salinity in irrigated water over the last few years has led to the introduction of under-tree sprinklers.

The following table of citrus trees of bearing age and production during the past five seasons shows the predominance of navel and valencia oranges. Other types of oranges, lemons and limes, mandarins, grapefruit, etc., together represent only 10 to 15 per cent of total citrus production.

Citrus Fruit: Trees and Production, South Australia

Season	Oranges			Lemons and Limes	Mandarins	Grapefruit and Other Citrus	Total Citrus
	Navel	Valencia	Other				
TREES OF BEARING AGE ('000)							
1967-68	419	499	8	26	34	32	1,018
1968-69	469	606	7	31	40	34	1,187
1969-70	479	628	6	35	48	37	1,234
1970-71	544	750	6	50	59	41	1,450
1971-72	546	783	9	59	67	44	1,507
PRODUCTION ('000 bushels)							
1967-68	945	1,272	26	51	79	215	2,588
1968-69	1,464	2,216	23	75	92	178	4,048
1969-70	1,315	1,639	21	77	83	214	3,347
1970-71	2,087	3,268	23	146	126	233	5,883
1971-72	2,057	2,585	39	164	140	299	5,285

Apple growing is the principal non-citrus fruit industry. Although the area of apple orchards has decreased by some 50 per cent over the last forty years, production has gradually increased, partly because of the removal of lower yielding orchards and partly because of the general adoption of supplementary irrigation and lighter pruning practices. The yield per bearing acre, which averaged 197 bushels for the ten seasons ended 1961-62, rose to a record 342 bushels per bearing acre in 1968-69. A record production of 1,625,000 bushels was achieved in 1964-65, while production in 1971-72 was 1,177,000 bushels.

Pears are grown in the Adelaide Hills, in the Barossa Valley and on the Murray irrigation settlements. The yield from the 1970-71 harvest was a record 649,000 bushels from 1,572 acres. Pear acreage reached a peak in 1922, then declined gradually until 1952. An expansion of the canned fruit industry caused a subsequent increase in plantings along the River Murray.

The stone fruits industry became important following development of the irrigation schemes. Production of peaches has shown the greatest increase: the 1951-52 yield of 157,000 bushels from 2,064 acres was typical for the crop until

that time, but by 1966-67 the yield was a record 1,427,000 bushels from 4,754 acres. In the same period production of apricots rose from 507,000 to 1,307,000 bushels. South Australia is the major apricot-producing State, with the greater part of the crop being dried and much of the remainder being canned.

Cherries, plums and prunes, and almonds are the most important of the remaining crops.

Non-Citrus Orchard Fruit: Trees and Production, South Australia

Season	Apples	Apricots	Cherries	Peaches	Pears	Plums and Prunes
TREES OF BEARING AGE ('000)						
1967-68	526	380	50	390	167	75
1968-69	520	369	49	374	162	69
1969-70	528	350	47	363	161	66
1970-71	538	361	47	384	166	66
1971-72	538	371	49	379	170	65
PRODUCTION ('000 bushels)						
1967-68	1,378	683	53	1,243	610	80
1968-69	1,561	1,149	39	1,154	405	58
1969-70	1,561	936	55	1,092	644	69
1970-71	1,588	1,274	50	1,283	649	85
1971-72	1,177	1,093	40	1,277	578	74

South Australia accounts for almost the entire Australian production of dried apricots, peaches, pears and nectarines—mostly in the Upper Murray irrigation areas and the Barossa Valley. A small proportion of the Australian production of dried prunes is produced in the Barossa Valley and in the Noarlunga district.

Production in 1971-72 included 52,280 cwt of dried apricots, 9,141 cwt of dried peaches, 5,690 cwt of plums and prunes and 5,500 cwt of dried pears.

The Dried Fruits Board, constituted under the Dried Fruits Act, 1934-1972, regulates marketing in South Australia by determining a quota for home sale of dried fruits in each year. In addition the Board encourages the consumption of dried fruits by advertising.

OTHER CROPS

Other crops cultivated in South Australia include field peas, nursery products, cut flowers, pasture seeds, vegetable seeds, chicory and linseed.

In 1971-72, 36,000 acres of field peas were grown for grain yielding 751,000 bushels, virtually all of this area being located in the cereal growing districts north of Adelaide. Field peas are grown mainly as a livestock fodder, or for processing into split peas.

Most of the lucerne and other pasture seeds are grown in the cooler, moist regions, particularly in the south-east of the State. During the 1971-72 season approximately 50 per cent of the 5,371,039 lb of lucerne seed produced in the State was grown in the South East Division.

A considerable portion of the area devoted to nurseries is found in the vicinity of Adelaide. In addition there are several fruit tree nurseries in the horticultural districts of the River Murray.

PLANTING AND HARVESTING OF CROPS

The main crops of South Australia are normally planted and harvested during the periods listed below.

Usual Months of Planting and Harvesting, South Australia

Crop	Planting	Harvesting
Cereals:		
Wheat	April-June	November-January
Barley	May-July	November-January
Oats	April-June	November-January
Fruit:		
Grapes .....	..	February-May
Citrus .....	..	May-February
Apples .....	..	January-April
Apricots .....	..	December-January
Peaches .....	..	December-March
Pears .....	..	January-April
Vegetables:		
Potatoes	July-January	November-June
Tomatoes; Field	September-February	January-June
Glasshouse	March-June	July-January

.. not applicable

VALUE AND PRICES OF CROPS

The estimated gross value of agricultural production for South Australia in the 1971-72 season was \$215,010,000. 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 at the principal market. In the following table gross values of principal crops for the seasons 1967-68 to 1971-72 are shown.

Gross Value of Principal Crops, South Australia

Crop	1967-68	1968-69	1969-70	1970-71	1971-72 <i>p</i>
	\$'000				
Cereals:					
Wheat	42,183	112,551	84,814	41,988	78,739
Barley	12,818	25,657	23,724	34,902	40,278
Oats	3,197	5,686	3,303	5,053	5,423
Rye	270	370	165	357	311
Grass seeds	1,853	2,422	2,280	2,101	2,093
Hay	10,384	14,113	7,367	8,613	10,650
Green fodder	2,385	1,729	1,463	1,485	907
Field peas	177	749	909	829	1,224

Gross Value of Principal Crops, South Australia (continued)

Crop	1967-68	1968-69	1969-70	1970-71	1971-72 _p
	\$'000				
Orchard and berry fruit:					
Citrus	6,333	8,104	8,395	12,635	12,885
Apples	3,746	3,655	4,372	4,343	4,007
Apricots	2,117	4,201	3,850	5,370	4,706
Peaches	2,419	2,556	2,914	2,918	3,006
Other	3,658	4,033	4,961	4,665	4,573
Vine fruit:					
Wine grapes	10,823	13,514	15,904	14,122	15,827
Table grapes	221	136	342	289	506
Dried currants, raisins, etc.	3,106	1,617	2,592	1,650	3,838
Vegetables:					
Potatoes	5,176	4,045	2,610	6,059	4,393
Green peas	879	546	924	1,138	1,658
Other	13,581	13,333	13,607	15,438	16,973
Other crops	1,963	2,080	2,270	2,369	3,014
Total	127,288	221,097	186,766	166,322	215,010

_p preliminary

Market prices of principal crops grown in South Australia for years 1967-68 to 1971-72 are set out in the following table. Wheat prices have shown little fluctuation in recent years, and have not been below \$1.30 per bushel since the 1948-49 season.

Prices of other cereals, however, are subject to marked variations from year to year. For example, since 1947-48, average barley prices per bushel have been as high as \$1.68 and as low as 83c, while in the same period oats prices have been as high as \$1.17 and as low as 42c per bushel.

Prices of Agricultural Products, South Australia

Crop	Unit	1967-68	1968-69	1969-70	1970-71	1971-72 _p
		Dollars				
Cereals:						
Wheat (a);						
Bulk	bushel	1.602	1.361	1.451	1.479	1.541
Bagged	bushel	1.670				
Barley (a)	bushel	1.190	0.932	0.835	1.116	0.926
Oats	bushel	1.113	0.528	0.599	0.691	0.669
Rye	bushel	1.454	1.049	1.262	1.609	1.171
Fruit:						
Apples	bushel	3.18	3.29	3.35	3.43	3.92
Apricots	bushel	5.76	5.28	6.17	6.68	6.90
Peaches	bushel	5.28	6.74	8.58	7.62	7.87
Pears	bushel	3.65	4.47	4.61	3.98	4.28
Oranges:						
Navel (a)	bushel	2.76	2.20	2.45	2.12	2.20
Other (a)	bushel	2.32	1.85	2.46	2.05	2.54
Grapes:						
Table	ton	214.08	231.36	264.00	277.44	277.92
Wine (b)	ton	63.45	66.59	66.16	68.81	71.56
Vegetables:						
Potatoes (a)	ton	81.94	59.77	33.45	85.15	62.51
Onions	ton	113.50	100.97	98.78	89.18	124.96
Tomatoes:						
Glasshouse	$\frac{1}{2}$ case	3.86	3.98	3.49	3.49	3.77
Other	$\frac{1}{2}$ case	3.03	2.31	2.60	3.34	2.48

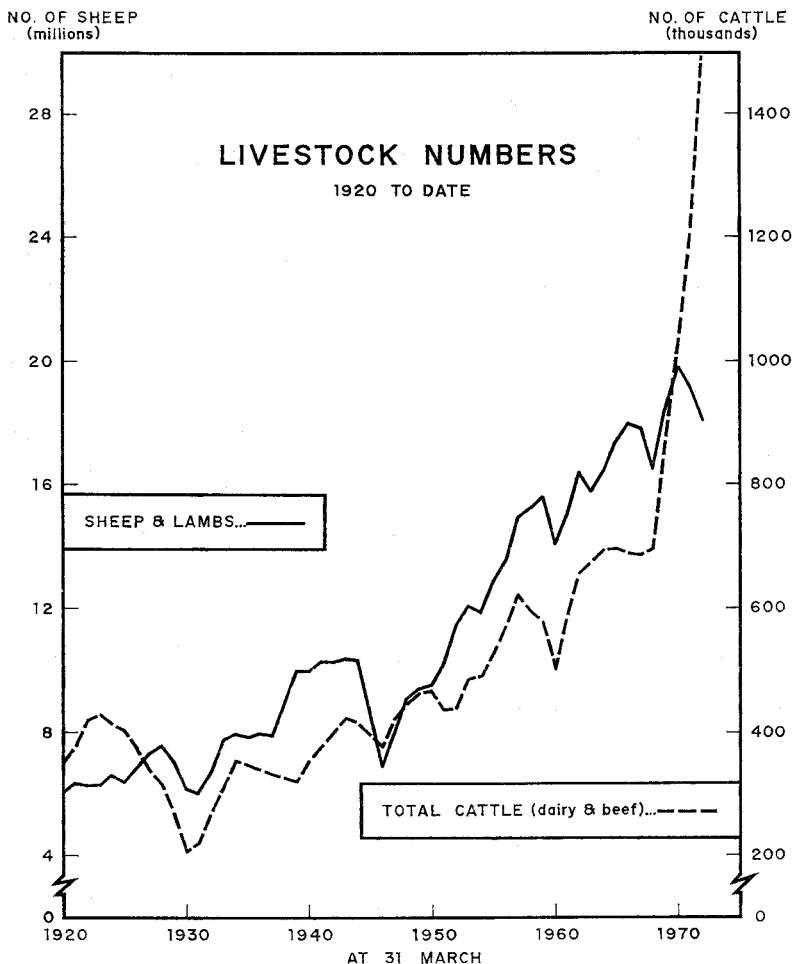
(a) Average price realised.

(b) Weighted average price at winery.

_p preliminary

PASTORAL AND DAIRYING

Pastoral activities, with sheep grazing predominant, are widespread in South Australia under widely varying climatic conditions from the arid saltbush plains in the far north through to the lush, well-watered pastures of the South East.



Livestock numbers have increased markedly since 1960 (although sheep numbers fell by approximately 1,500,000 in 1967-68 and by approximately 1,200,000 in 1971-72). The bulk of the expansion of the industry has been confined to the heavier rainfall districts. Carrying capacity has been boosted particularly by the introduction and adoption of new and improved pastures.

The Dog Fence

This fence is an unbroken barrier of wire netting 5 to 6 feet high extending for more than 5,000 miles through South Australia, along the South Australia-New South Wales and the New South Wales-Queensland borders and through part of Queensland. It has been erected to protect the sheep lands of these States from the ravages of dingoes (native dogs). The part of the fence within South Australia extends in a tortuous line from the head of the Great

Australian Bight to the New South Wales border for a distance of nearly 1,500 miles. The whole of the sheep population of South Australia is now confined within the area enclosed by the dog fence which effectively excludes the dingoes.

PASTURES

There has been a significant increase in the area of sown pastures over the past ten years. Area under pasture for the years 1967 to 1972 is shown for statistical divisions in the following table.

Area Under Pasture: Statistical Divisions, South Australia^(a)

Statistical Division	October				March
	1967	1968	1969	1970	1972
	'000 acres				
Adelaide	n.a.	57	62	60	58
Central		364	437	469	416
Kangaroo Island		348	349	349	367
Mount Lofty Ranges		584	636	642	604
Murray		934	1,044	1,083	1,161
South East		2,866	3,033	3,131	3,317
Eyre		1,079	1,151	1,152	1,190
Northern		213	236	273	262
Far North		22	27	31	25
Total	6,713	6,468	6,974	7,190	7,399

(a) Lucerne, clovers (all kinds), rye grasses (all kinds), cocksfoot, paspalum, phalaris, primrose, sudan and veldt.

To a very large extent the discovery of the relationship between clovers and soil fertility has been responsible for this rapid development of pastures. The nitrogen-building clovers have, in the cereal districts, raised both fertility and crop yields while at the same time providing ready grazing of high nutritional value for livestock. The Murray Mallee and Eyre Peninsula have been transformed from unstable farming districts to highly productive areas through the sowing of more and improved pastures. In earlier years most pasture plants available flourished only in the higher rainfall zones of the State. At that time Mount Barker subterranean clover was the predominant pasture. New varieties have been introduced, including Clare, Geraldton, Dwalganup and Yarloop subterranean clovers. These are suited to the hard setting soils of the important wheatgrowing area extending northward from Adelaide to Jamestown.

Another type of legume, known as medics, has been found to be suitable for the drier cereal country, especially the mallee soils. Five medics are grown: Hannaford, Jemalong Barrel, Harbinger Strand, Gama Paragosa and Snail. Lucerne is also extensively grown; it thrives under irrigation yet still grows in areas with as little as 10 inches of rainfall per annum. It is both salt-resistant and drought-resistant and is grown in most areas of the State. Strawberry clover is the important legume on the black soils of the South East.

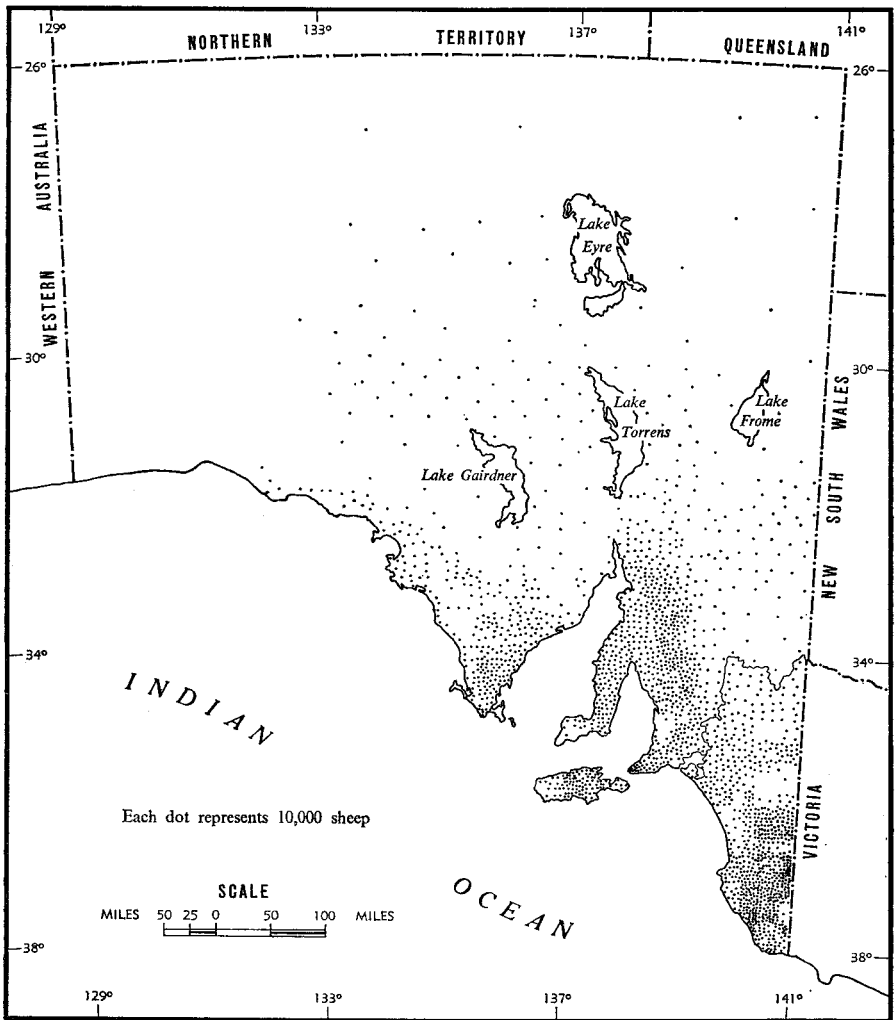
The most important perennial grasses in the better rainfall areas are phalaris tuberosa, perennial rye grass and cocksfoot while most widely used in the medium to low rainfall areas is the annual, wimmera rye grass. The naturalised annual grasses which occur over the whole of the State contribute substantially to total pasture production. Details of fertilisers used on pasture are given on pages 378-80.

SHEEP

Numbers and Distribution

The pastoral industry was the first to become established, mainly because there was an assured overseas market for wool, hides and tallow. Sheep numbers were as high as 7.6 million by 1891, a peak that was not exceeded until 1932. The severity of the droughts during this period is reflected in the reduced flocks of 1902 (4.8 million) and 1915 (3.7 million).

SOUTH AUSTRALIA
SHEEP DISTRIBUTION
At 31 March 1970.



After 1932 sheep numbers steadily increased, exceeding 10 million by 1940, but again a drought severely reduced the numbers to less than 7 million in 1946. Thereafter the sheep population increased steadily as improved farming techniques raised the grazing capacity of the pastoral and wheat-sheep zones.

At 31 March 1970 a record number of 19,747,000 sheep were being maintained in South Australia, the previous highest number being 18,392,000 at 31 March 1969. The number of sheep in South Australia at 31 March 1972 was 17,970,000.

By far the greatest concentration of sheep is in the South East Division which carried 5.0 million sheep at 31 March 1972. In the Upper South East subdivision large scale land development schemes have, in the last ten to fifteen years, doubled the sheep carrying capacity in many areas by the application of trace elements to deficient soils. A similar scheme was undertaken in the Kangaroo Island Division where the sheep population rose from 258,000 in 1956 to 896,000 in 1971.

The next largest concentration of sheep at 31 March 1972 was in the Eyre Division (2,625,000) and sheep numbers of approximately 2 million were reported in Murray and Northern Divisions.

Sheep Numbers: Statistical Divisions, South Australia
At 31 March

Statistical Division	1968	1969	1970	1971	1972
			'000		
Adelaide		179	186	164	133
Central		1,753	1,975	1,916	1,816
Kangaroo Island		836	875	896	814
Mount Lofty Ranges		1,680	1,756	1,740	1,583
Murray	<i>n.a.</i>	2,057	2,351	2,223	2,178
South East		5,725	5,775	5,719	4,986
Eyre		2,484	2,758	2,723	2,625
Northern		1,804	2,128	2,003	2,007
Far North		1,875	1,942	1,782	1,827
Total	16,405	18,392	19,747	19,166	17,970

n.a. not available

Between 1960 and 1966 there was a substantial increase in the number of sheep but a decrease in the number of flocks—the number of smaller flocks (less than 500 sheep) falling quite considerably although this was partly offset by an increase in flocks of 1,000 to 5,000 sheep. The number of sheep continued to increase between 1966 and 1969, and the number of flocks fell at about the same rate as between 1960 and 1966.

The distribution in statistical divisions of sheep flocks classified by size of flock at 31 March 1969 is given in the following table.

**Sheep Flocks Classified by Size of Flock: Statistical Divisions, South Australia
At 31 March 1969**

Number of Sheep in Flock	Statistical Division							Total (a)
	Adelaide	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern	
	Number of Flocks							
Under 50	225	92	487	167	211	31	72	1,288
50- 99	75	60	185	89	75	17	41	548
100- 199	83	146	308	165	101	29	100	943
200- 499	122	761	639	645	306	154	480	3,148
500- 999	63	840	554	829	516	695	578	4,140
1,000- 1,999	29	434	362	539	1,010	826	377	3,704
2,000- 4,999	10	91	138	122	804	264	139	1,847
5,000- 9,999	1	7	16	12	150	8	28	298
10,000-19,999	—	—	2	4	28	—	4	74
20,000 or more	—	—	—	—	2	—	2	23
Total flocks ...	608	2,431	2,691	2,572	3,203	2,024	1,821	16,013

(a) Includes Kangaroo Island and Far North Divisions.

At present about 21 per cent of the total sheep population consists of lambs and hoggets under one year. The proportion of lambs to sheep has remained fairly constant for a number of years although it is subject to some fluctuations. For example, lamb numbers which had fallen after some relatively poor lambing seasons were built up considerably during the 1961-62 season, the number increasing from 2,824,000 at 31 March 1961 to 3,798,000 at 31 March 1962.

**Age and Sex of Sheep, South Australia
At 31 March**

Year	Rams	Breeding Ewes	Other Ewes	Wethers	Lambs and Hoggets (under one year)	Total Sheep
	'000					
1963....	196	7,258	812	4,144	3,328	15,738
1964....	199	7,545	772	4,277	3,609	16,402
1965....	208	7,938	813	4,515	3,815	17,289
1966....	218	8,165	831	4,694	4,085	17,993
1967....	220	8,331	804	4,729	3,780	17,864
1968....	215	7,751	788	4,118	3,534	16,405
1969....	228	8,874	706	4,646	3,938	18,392
1970....	234	9,183	857	4,789	4,684	19,747
1971....	240	9,223	1,021	4,657	4,025	19,166
1972....	230	8,944	786	3,989	4,021	17,970

Breeds of Sheep

The predominant breed in South Australia is the Merino which accounts for more than 80 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. Because of the particularly arid nature of the South Australian climate, pioneer breeders developed a large-framed type of Merino, yielding an exceptionally high clip of medium to broad quality wool.

Of the remaining recognised breeds, the Australasian breeds, Corriedale and Polwarth, are most important. These are dual purpose sheep, used for mutton and at the same time producing wool of good quality. The Corriedale is a fixed cross between Lincoln rams and Merino ewes while the Polwarth is a fixed comeback bred from the mating of Merino rams with Lincoln-Merino ewes.

British longwools (Border Leicester, Cheviot and Romney Marsh) are used for mating with the Merino or crossbred ewes mainly to produce fat lambs but useful types of comeback and crossbred wools, are also yielded. British shortwools (Dorset Horn, Ryeland, Suffolk, Southdown and Shropshire) are used principally for production of export lambs.

**Breeds of Sheep, South Australia
At 31 March**

Breed	1967	1968	1969	1970	1971
	'000				
Merino	14,856.9	13,418.1	15,275.1	16,749.3	16,304.1
Corriedale	1,158.6	1,113.0	1,085.3	973.1	940.6
Dorset Horn	46.5	58.9	62.0	67.4	77.9
Border Leicester	26.6	37.5	32.3	29.6	27.7
Polwarth	104.4	113.9	114.1	139.6	147.6
Romney Marsh	23.9	25.7	26.6	21.1	17.6
Ryeland	4.4	5.7	7.1	6.7	5.7
Southdown	5.4	7.8	5.3	4.9	4.7
Suffolk	16.7	17.0	16.9	14.9	18.4
Other	3.4	3.1	4.3	3.8	4.3
Merino-Comeback ...	220.1	213.6	198.8	168.4	214.7
Crossbred	1,396.7	1,391.0	1,564.3	1,568.3	1,402.6
Total	17,863.6	16,405.3	18,392.1	19,747.1	19,165.8

Lambing

In 1969 a record 8,598,000 ewes were mated and the number of lambs marked totalled 7,193,000. In 1971, 8,524,000 ewes were mated and the number of lambs marked was 6,693,000. Early reports from farmers indicated that they intended to mate 8.6 million ewes in 1972—approximately 5.5 million to Merino rams, 1.0 million to other longwool rams and 2.1 million to shortwool rams.

Before 1969 the lambing percentage (*i.e.* of lambs marked to ewes mated) had never quite reached 80 per cent in South Australia, although it had been regularly over 70 per cent for a number of years. This represented a considerable improvement over the period before the 1939-45 War when the percentage quite often fell below 60 per cent and occasionally below 50 per cent in drought years. Details of lambs marked and the lambing percentage in each statistical division in 1970 and 1971 are given in the next table.

Lambing: Statistical Divisions, South Australia

Statistical Division	Lambs Marked		Lambing Percentage (a)	
	1970	1971	1970	1971
	'000			
Adelaide	75	66	86.61	87.96
Central	753	760	80.89	78.78
Kangaroo Island	249	247	72.90	72.29
Mount Lofty Ranges	699	675	85.18	84.74
Murray	922	874	79.15	76.73
South East	2,117	2,041	85.89	85.32
Eyre	820	805	75.36	73.01
Northern	706	702	77.51	76.53
Far North	416	523	56.14	65.72
Total	6,757	6,693	79.04	78.51

(a) Percentage of lambs marked to ewes mated.

Sheep Shearing and Wool-clip

In the agricultural areas of the State there is a predominance of shearing during the late winter and spring months, August to November. Shearing in the South East Division occurs somewhat later, with some 75 per cent of the wool-clip being obtained in the period October to November. In the northern pastoral areas (Far North Division) there are two main seasons, March-April and July-August.

The next table gives details of sheep and lambs shorn, wool-clip and average fleeceweight in South Australia for the years 1967-68 to 1971-72.

Sheep and Lambs Shorn: Wool-clip and Average Fleeceweight, South Australia

Classification	1967-68	1968-69	1969-70	1970-71	1971-72
	NUMBER SHORN ('000)				
Sheep	15,705	15,087	16,924	17,556	16,613
Lambs	3,896	3,865	4,990	4,409	4,210
Total	19,601	18,952	21,914	21,965	20,823
	WOOL-CLIP ('000 kg)				
Sheep	82,898	87,191	100,982	95,035	94,792
Lambs	5,972	6,833	9,293	7,695	7,792
Crutchings	4,383	4,587	5,180	4,912	4,904
Total	93,252	98,661	115,455	107,641	107,487
	AVERAGE FLEECEWEIGHT (a) (kg)				
Sheep	5.28	5.78	5.97	5.41	6.00
Sheep and lambs	4.76	5.21	5.27	4.90	5.16

(a) Includes crutchings.

The total wool-clip, including crutchings, exceeded 100 million kg for the first time in 1966-67. More than 90 per cent of the total wool is obtained from adult sheep.

The average fleeceweight in South Australia is well over 5 kg per head for adult sheep, with a record 6.00 kg per head being achieved in 1971-72. This is significantly higher than the yield obtained in other States, and is primarily because of the larger size of the South Australian Merino, its broader wool quality and longer thicker-stapled fleece.

A breakdown of the State figures for 1971-72 by statistical divisions is given in the next table. This shows the high average fleeceweight obtained in the northern pastoral areas.

Sheep and Lambs Shorn, Wool-clip and Average Fleeceweight
Statistical Divisions, South Australia
1971-72

Statistical Division	Number Shorn			Wool-clip			Average Fleeceweight (a)	
	Sheep	Lambs	Total	Sheep	Lambs	Total (a)	Sheep	Sheep and Lambs
			'000			'000 kg		kg
Adelaide	287	19	306	1,165	34	1,231	4.17	4.02
Central	1,636	330	1,966	9,630	586	10,747	6.21	5.47
Kangaroo Island ..	793	199	992	3,966	354	4,511	5.24	4.55
Mount Lofty Ranges	1,532	367	1,899	8,469	641	9,544	5.81	5.03
Murray	1,921	478	2,399	11,669	874	13,192	6.41	5.50
South East	4,815	1,426	6,241	26,136	2,578	30,006	5.70	4.81
Eyre	2,407	522	2,930	13,868	840	15,433	6.06	5.27
Northern	1,739	484	2,223	10,655	931	12,149	6.45	5.46
Far North	1,481	386	1,867	9,233	953	10,675	6.56	5.72
Total	16,613	4,210	20,823	94,792	7,792	107,487	6.00	5.16

(a) Includes crutchings.

The relatively light average fleece obtained in the South East Division is explained partly by the lower proportion of Merino sheep in the area (at 31 March 1971 only 72 per cent of total sheep in the South East Division were Merinos, compared with a total State figure of over 80 per cent), but more importantly by the lighter wool quality of the Merino and the smaller framed sheep in this area.

WOOL INDUSTRY

Organisation of the Australian Wool Industry

In 1961 the Commonwealth Government appointed an independent committee to inquire into the marketing and promotion of Australian wool and related matters. The Committee presented its report to the Government in 1962 and the most important recommendation was that wool promotion, research and testing should be brought under the control of a single body, which should also act as an advisory authority on wool marketing.

The *Wool Industry Act* 1962 made provision for the replacement of three separate instrumentalities (the Australian Wool Bureau, the Wool Research Committee and the Australian Wool Testing Authority) by a single overall body, to be known as the Australian Wool Board. The Board consisting of eleven members was inaugurated on 1 May 1963. The members of the Board comprise a chairman, six woolgrower representatives, three members with special qualifications and a representative of the Commonwealth Government.

Following the establishment of the Board, the Australian Woolgrowers and Graziers Council and the Australian Wool and Meat Producers Federation formed the Australian Wool Industry Conference. Principal functions of the Conference are to nominate woolgrower representatives for appointment to the Australian Wool Board; to recommend what rates of levy should be paid by woolgrowers for promotion and research, and to review the activities of the Board at least once a year. Levies had been imposed on shorn wool produced in Australia since 1936 for research and promotion purposes.

From 1 July 1964 a new levy, which included the amount to be allocated to research, was fixed at a maximum rate of 2 per cent of the gross value of shorn wool sold. For 1964-65 the rate for the combined levy was 1.875 per cent, from 1965-66 to 1968-69 it was 2 per cent and from 1 August 1970 this rate was reduced to 1 per cent. Following an amendment to the Wool Industry Act in 1967, the Government contributed towards wool research and promotion, on a dollar for dollar basis matching the woolgrowers' contribution by levy, to a maximum of \$14 million in any one year during the three financial years 1967-68 to 1969-70.

The *Wool Industry Act* 1962-1971 provided for Government support not exceeding \$81 million during the financial years 1970-71 to 1972-73.

The Australian Wool Board was required to inquire into, and from time to time report to the Australian Wool Industry Conference upon methods of marketing and related matters; however, the Board had no executive powers over marketing.

In October 1967 the Board presented a report on wool marketing to the Australian Wool Industry Conference. The report included proposals for the establishment of an authority to enforce standards of clip preparation, to administer the elimination of one, two and three bale lots, to conduct a price averaging plan for these wools and others voluntarily submitted and to conduct, in conjunction with wool selling brokers, a system of supply management involving chiefly wools in the price averaging plan.

A recommendation that these proposals, with some amendments, be implemented by a non-statutory Australian Wool Marketing Corporation was accepted by the Australian Wool Industry Conference in November 1968. The proposals were then submitted to the Commonwealth Government with a request for financial assistance. The Government's offer was accepted by Conference in November 1969 and arrangements were commenced to bring the Wool Marketing Corporation into operation. The Price Averaging Plan Wool Marketing Scheme administered by the Corporation came into operation on 1 July 1970.

The Corporation continued to function as an operational unit until 6 November 1970 when the Corporation's powers and functions were taken over by the Australian Wool Commission, a statutory authority set up by the Government following proposals from the Australian Wool Industry Conference and the subsequent report of a special Advisory Committee of the Australian Wool Board. The Commission began bidding and operating its flexible reserve price at wool auctions on 16 November 1970.

The *Wool Industry Act* 1972 repealed the *Wool Industry Act* 1962-1971 and the *Australian Wool Commission Act* 1970. Under the new Act the Australian Wool Corporation commenced operations on 1 January 1973 with the combined functions of the Australian Wool Commission and the Australian Wool Board. The Wool Corporation has continued to operate the Flexible Reserve Price Scheme at auctions and to implement the policies established by the Australian Wool Commission.

Production of Wool

With the average cut a head increasing over time, wool production has been increasing at a greater rate than the sheep population, and in fact has more than doubled in the past twenty years.

Total wool production consists of shorn wool (including crutchings) plus fellmongered wool, dead wool and wool exported on skins. Fellmongering is the process of removing wool from the pelt by bacterial action (sweating) or by treatment with chemicals. Dead wool is picked from the carcasses of dead sheep.

In 1943 the weight of wool produced exceeded 50 million kg for the first time. Production dropped significantly in 1945-46 following the reduction in flocks caused by the 1944 drought. The industry recovered quickly and in 1947-48 a record 53 million kg of wool was produced, achieved by an increase in the numbers shorn and an exceptionally high average fleece of 4.93 kg. The rising trend has since continued with current production now approximately 117 million kg.

Before 1946-47 the annual wool value had not exceeded \$14 million and was relatively stable. The marked changes in the value of wool produced since then have been mostly because of frequent and substantial price fluctuations rather than variations in the quantity produced. On the resumption of the auction system in 1946-47 wool prices increased sharply, reaching a peak in the record 1950-51 season. Gross value of production in that year exceeded \$132 million.

Demand eased in the following years causing values to fall, although a recovery in prices combined with a significant increase in production in 1956-57 raised gross value of production to \$114 million. In 1963-64 increased wool production and somewhat higher prices than in the past few years resulted in gross value of production of \$113 million. Since then wool prices have fallen but wool production has exceeded 100 million kg since 1965-66. Gross value of production fell to \$65 million in 1970-71.

Wool Production and Value, South Australia

Season	Production			Value of Wool Production
	Shorn Wool	Other (a)	Total	
	'000 kg	'000 kg	'000 kg	\$'000
1962-63	86,118	7,934	94,051	92,514
1963-64	88,356	7,127	95,483	113,409
1964-65	90,747	7,111	97,858	94,328
1965-66	96,501	7,660	104,161	103,635
1966-67	99,961	7,766	107,727	104,588
1967-68	93,252	7,749	101,002	79,925
1968-69	98,661	7,055	105,716	95,054
1969-70	115,455	9,076	124,531	91,224
1970-71	107,641	9,618	117,260	65,086
1971-72	107,487	10,435	117,922	70,093

(a) Includes fellmongered wool, dead wool and wool exported on skins.

Quality of Wool

In general terms, quality refers to the diameter of wool fibre, which is usually indicated by the evenness and number of crimps or waves. Crimp is the main determinant of quality; the smaller and more even the crimp, the finer the wool.

Fineness is generally specified in terms of spinning ability, and in Australia is expressed generally in terms of Bradford Counts which, in practice, signify the number of hanks of yarn, each measuring 560 yards, obtainable from one pound weight of tops if spun to its fullest capacity. There are no commercial means of testing a batch of wool in its greasy state and therefore quality counts must of necessity be estimates based on the experience of the wool expert. Quality counts range from as high as 90s to 100s for superfine Merino down to 32s for some English longwool breeds.

Other factors influencing grading are soundness (tensile strength), length of staple, condition, colour and style.

The South Australian Merino generally produces wool of a much broader quality than the Merino of the eastern States. The following table shows that only 0.2 per cent of wool sold in the 1970-71 season was 64/70s and finer; the corresponding New South Wales figure was 11.6 per cent.

Quality Analysis of Greasy Wool Sold at Auction in South Australia

Predominating Quality of Bale	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
	Per cent						
64/70s and finer	0.3	0.1	0.1	0.1	0.1	0.1	0.2
64s	1.1	0.7	0.5	0.6	0.3	0.4	0.6
64/60s	5.3	4.9	3.5	4.1	2.1	2.0	4.0
60/64s	15.1	16.2	13.5	16.7	10.7	10.5	13.9
60s	41.4	43.3	41.0	41.7	37.4	37.3	39.0
58s	25.2	23.9	28.8	24.9	33.0	33.5	27.8
56s	7.6	7.4	8.8	8.1	11.5	11.6	9.4
50s	2.0	1.9	2.1	2.1	2.7	2.7	2.9
Below 50s	0.4	0.3	0.4	0.4	0.5	0.5	1.0
Oddments	1.6	1.3	1.3	1.3	1.7	1.4	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The quality distribution of wool has remained relatively constant with over 80 per cent classified between 58s and 60/64s quality.

The incidence of vegetable matter reduces the yield of all wool types. If the extent of vegetable fault is greater than 14 per cent of the wool's greasy weight the wool has to be treated by the carbonising process. In most seasons approximately 70 per cent of South Australian wool is free of, or contains only light burr and seed; almost 15 per cent contains medium or heavy burr and seed and some 10 per cent is carbonising wool.

Incidence of Vegetable Fault in Wool Sold at Auction in South Australia

Season	Free or Near Free	Light Burr and/or Seed	Medium Burr and/or Seed	Heavy Burr and/or Seed	Carbonising Wool	Combing Oddments	Total
	Percentage of Total Number of Bales						
1961-62 ..	38.6	37.4	10.2	2.2	10.1	1.5	100.0
1962-63 ..	34.9	40.5	11.2	2.6	9.0	1.8	100.0
1963-64 ..	32.9	44.7	10.5	2.3	7.7	1.9	100.0
1964-65 ..	27.8	45.1	12.5	3.2	9.8	1.6	100.0
1965-66 ..	26.8	43.3	14.2	3.8	10.6	1.3	100.0
1966-67 ..	31.5	44.8	11.0	2.4	9.0	1.3	100.0
1967-68 ..	28.9	45.9	12.0	2.8	9.1	1.3	100.0
1968-69 ..	35.8	46.2	8.3	1.3	6.8	1.6	100.0
1969-70 ..	28.6	45.3	11.8	2.6	10.3	1.4	100.0
1970-71 ..	24.5	44.3	12.6	3.9	13.5	1.2	100.0

Wool Marketing

Approximately 9 per cent of wool grown in South Australia is sold outside the auction system. Of the South Australian wool passing through the auction system approximately 85 per cent is sold at the Adelaide Sales with the remainder, predominantly of South Eastern origin, going to Victorian selling centres. A similar inflow of wool occurs from western New South Wales and to a lesser extent from western Victoria.

On receipt into a wool store each bale is weighed and then stacked. When a catalogue is to be prepared for the buyers, clips are listed and particulars of the various lots to be shown are supplied by the broker. A proportion of the required bales is then taken from the stacks and sent to the show floors for inspection. A valuation of every lot, based on current market rates is made by the broker for the protection of the grower at the auction.

At the Wool Exchange, the sales are conducted with great rapidity taking on average for a normal market only eight seconds to dispose of an individual lot or line of wool. On completion of the sale the bales are returned to the stacks to await instructions from the buyers. When required for shipment the bales are usually dumped, *i.e.* pressed to less than half their original size and banded, to economise on shipping space.

Adelaide is the sole wool selling centre in South Australia, handling over half a million of Australia's 5 million bales annually. Twelve or thirteen sales are held each season depending on the quantity of wool expected to be offered.

During the main spring shearing season sales are held every two or three weeks, lengthening to monthly or longer intervals over the remainder of the year. Pastoral wools provide the bulk of the offerings in the early spring months with agricultural wools becoming more prominent as the season progresses. Wools from the South East and other high rainfall areas make up a considerable proportion of the offerings in the summer months. Towards the end of the season wools are drawn from various parts of the State.

Details relating to Adelaide wool sales during the past eight seasons compared with 1950-51, the year of boom prices are shown in the following table.

Adelaide Wool Sales

Season	Wool Sold (Scoured and Greasy)		Amount Realised	Average Price Per Kg (Greasy)	In Store at End of Season
	Bales	Weight			
	Number	'000 kg	\$'000	Cents	Bales
1950-51 ..	383,630	53,086	125,956	237.28	6,304
1964-65 ..	570,976	81,224	79,045	97.31	52,853
1965-66 ..	591,641	84,881	87,402	102.98	40,197
1966-67 ..	571,337	82,472	82,220	99.69	56,076
1967-68 ..	573,490	82,642	68,486	82.87	39,517
1968-69 ..	575,532	84,432	77,478	91.76	73,998
1969-70 ..	742,575	107,731	80,823	75.02	27,042
1970-71 ..	613,305	88,882	53,106	59.74	24,670
1971-72 ..	672,056	99,133	71,585	72.21	24,675

Wool Prices

Prices paid for wool sold in South Australia tend to be on average less than prices realised in other States, this being partly attributable to the large proportion of medium to broad quality wools grown in South Australia and in western New South Wales. In 1971-72 the average price for wool sold at auctions in Australia was 75.25 cents per kg greasy, compared with 72.21 cents per kg in South Australia.

Details of average prices of greasy Merino and Crossbred wool of various grades over the last few seasons are given below.

Average Wool Prices, Adelaide Sales

Description	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Greasy Merino:	Cents per kg						
Superior	168	157	159	159	130	101	<i>n.a.</i>
Good	148	143	130	130	117	93	102
Average	128	123	110	110	97	75	90
Wasty and inferior ...	104	101	86	90	75	64	79
Super lambs	137	126	123	128	112	82	<i>n.a.</i>
Good lambs	104	93	93	99	82	62	86
Average lambs	75	64	55	66	53	31	42
Inferior lambs	57	51	42	51	40	18	31
Greasy Crossbred:							
Super Comebacks ...	150	141	132	126	117	93	<i>n.a.</i>
Fine Crossbred	148	132	121	117	106	88	86
Medium Crossbred ..	139	117	95	95	82	79	76

n.a. not available.

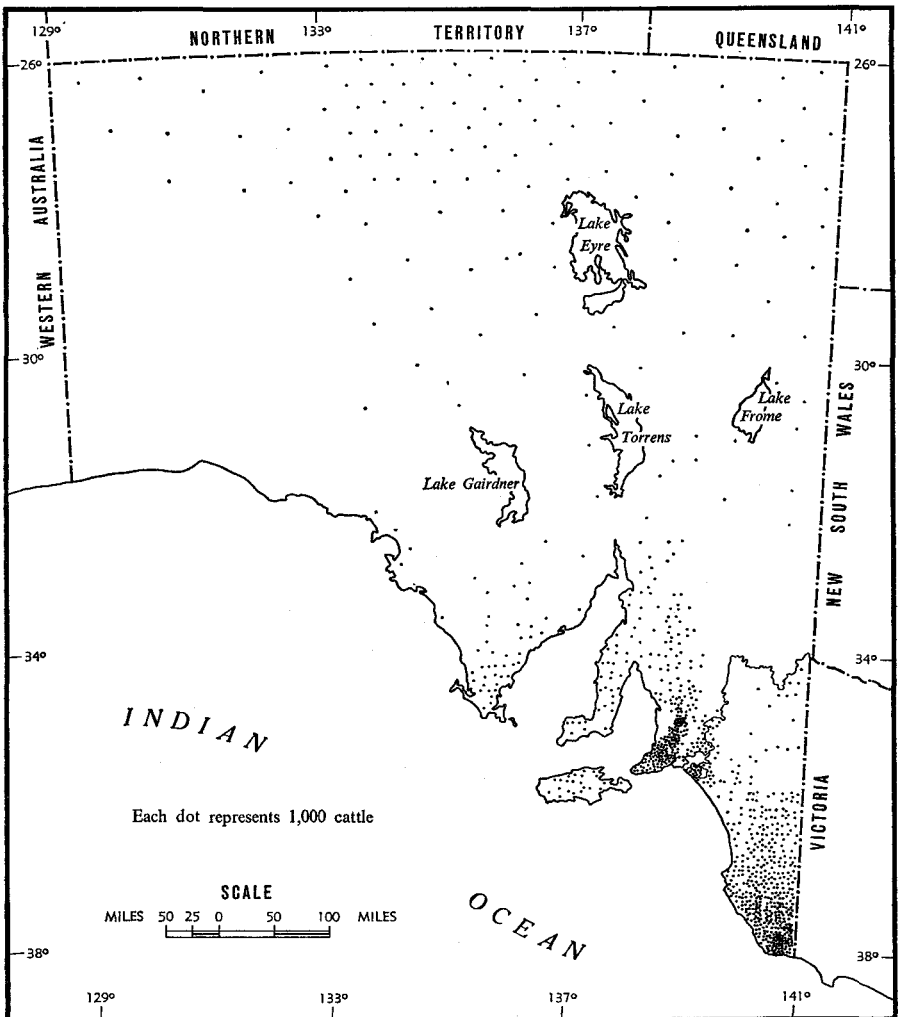
Average prices realised for greasy wool at Adelaide sales between 1945-46 and 1949-50 rose to 106 cents and more than doubled to nearly 239 cents in 1950-51. There was an immediate drop to half this level in the following year and then prices remained more stable until 1967-68. In 1970-71 the average price fell to 60 cents per kg. In 1971-72 prices began to rise.

PRODUCTION

CATTLE

In comparison with other States, cattle grazing is not a major industry in South Australia. Of the cattle in Australia at 31 March 1972 only about 5 per cent of those used mainly for meat production and just over 5 per cent of those for milk production were in South Australia. At 31 March 1972 the total number of cattle in South Australia was 1,495,000.

SOUTH AUSTRALIA
CATTLE DISTRIBUTION
At 31 March 1970.



Cattle Numbers: Statistical Divisions, South Australia
31 March 1972

Classification	Statistical Division							Total (a)
	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern	Far North	
Associated with milk production:	'000							
Bulls (b)	0.5	1.8	0.8	1.3	0.1	0.3	—	5.0
Cows	6.0	66.0	26.7	32.3	1.6	3.7	—	144.6
Heifers	1.7	18.7	6.2	8.9	0.4	1.0	—	39.1
Calves under one year	1.9	16.9	7.0	8.4	0.8	1.2	—	37.9
House cows ...	0.7	0.9	1.0	1.5	1.3	0.7	0.1	6.8
Total ..	10.8	104.2	41.6	52.3	4.2	6.9	0.2	233.4
Associated with meat production:								
Bulls (b)	1.7	3.0	1.9	12.5	1.7	1.4	2.7	25.9
Cows and heifers	38.6	65.9	42.7	328.8	51.2	30.7	79.2	667.0
Calves under one year	23.5	39.9	31.9	190.8	32.2	17.7	37.7	390.7
Other cattle	10.8	18.4	9.3	95.3	6.3	7.9	24.7	177.9
Total ...	74.7	127.2	85.8	627.3	91.4	57.8	144.3	1,261.6
Total cattle.....	85.4	231.4	127.3	679.6	95.6	64.6	144.4	1,495.0

(a) Includes Adelaide and Kangaroo Island Divisions.

(b) Used or intended for service.

Cattle for Meat Production

Numbers of cattle associated with meat production have increased in the last twenty years in South Australia. At 31 March 1964, 424,000 cattle associated with meat production were recorded (this figure is not strictly comparable with earlier figures because of a change of classification adopted in 1964), by 31 March 1968 this number had risen to 464,000 and at 31 March 1972 there were 1,262,000 cattle for meat production. In 1972 about 50 per cent of these cattle were in South East Division, 11 per cent in Far North Division, 10 per cent in Mount Lofty Ranges Division, and smaller numbers in other parts of the State. In the northern pastoral areas, Shorthorns are the predominant breed and there are lesser numbers of Herefords; in the South East, Herefords and Shorthorns are the main breeds and there are substantial numbers of Aberdeen Angus, while near Adelaide, where a number of studs are located, several breeds are well represented.

The northern pastoral region is traditionally the breeding area for cattle for meat production (carrying 50 per cent or more of these cattle before 1957) but there has been a trend towards moving cattle which were bred in this drier country to the better rainfall areas for fattening. The continued increase in the area of sown pastures has contributed to the increase of cattle in southern parts of the State.

Cattle for Milk Production

From March 1964 to March 1968 the total number of cattle associated with milk production declined by 39,000 to 231,115 and the total number in subsequent years has been of the same order. Distribution within the State is little changed although there has been some tendency for concentration in the principal dairying areas.

Properties in South Australia on which dairying is the main activity are situated mainly in the areas where high rainfall or irrigation permits the growing of sown pastures, but many of the mixed farms in the better cereal growing areas carry herds used mainly for milk production. Dairy production on these farms is almost entirely in the form of cream for butter making, whereas the properties in the sown pasture areas mainly market whole milk, either for consumption in the Adelaide area or for cheese making.

Commercial dairying activities are to be found mainly within an eighty mile radius of Adelaide. Of greatest importance is the Adelaide Hills district, comprising the Mount Lofty Ranges and areas as far south as Cape Jervis and Encounter Bay. This district embraces some of the best dairy land in the State and includes most of the properties devoted specifically to dairy farming. Although some herds are grazed on natural pastures improved only by top dressing with superphosphate, the most common type is sown pasture consisting of subterranean clover in combination with perennial grasses such as perennial rye grass or phalaris.

Dairy production is mainly in the form of whole milk for consumption in Adelaide but the surplus from the flush period of the year is converted into cheese at factories situated at several centres throughout the Adelaide hills.

Most of the breeds used mainly for milk production are represented; Friesians and Jerseys predominate, with Guernseys, Australian Illawarra Shorthorn, Ayrshires and their crosses in use to a lesser extent.

Other areas inside the eighty mile radius are the Lower Murray swamps and the Lakes District. The Lower Murray swamps extending from Mannum to Wellington are reclaimed areas ideally suited to dairying pursuits, combining the attributes of suitable climate, good soil, and an abundant water supply. The farms are flood irrigated through sluice gates in the levees and distributing channels and surplus water is led into a drainage system and pumped back into the river. The area has a very high carrying capacity of predominantly Friesian cattle. A significant proportion of the produce is sold as whole milk in the Adelaide market while the remainder is used for cheese, butter and casein production.

The Lakes District owes much to the barrages across the mouth of the Murray which have helped to maintain the waters of Lake Alexandrina and Lake Albert in a reasonably fresh state. These have greatly contributed to the improvement of the productivity of this area and have also had the effect of maintaining a greater control over the level of the water in the river, thereby greatly facilitating irrigation of the reclaimed swamps upstream. The outlet for dairy products is generally towards the processing plants situated on the Murray. On the eastern side both cream and milk are produced while on the western side most of the produce is sold as whole milk. Where cream is produced, pig-raising is complementary to dairying. The cattle for milk production are principally Jersey breed and enjoy a high reputation for productive ability.

Outside the eighty mile radius, the most important dairying area is the Lower South East, where the high rainfall and low evaporation rate combine to allow a fairly long growth period after the autumn and winter rains and spring flush of feed. The intensity of dairying varies with the different areas, being greatest on the richer peat and peat-type soils close to the coast and the rich volcanic soils around Mount Gambier. Most breeds are well represented in the district, the Jersey and Friesian being slightly more popular than other breeds.

The annual average yields per cow shown in the table below are obtained by dividing the total production of whole milk for the year ended June by the mean of the number of cows in milk and dry and the house cows at 31 March of that year and of the preceding year. They are, in effect, based on the approximate number of cows which were in milk during any part of the year. The average shown is therefore less than that for cows which were yielding during the greater part of the year but it may be accepted as sufficiently reliable to show the general trend. The average milk production per cow in South Australia for 10 years ending 1971-72 was 643 gallons whereas the Australian average for the same period was 513 gallons.

**Average Milk Production Per Cow, South Australia and Australia
Year Ended 30 June**

Area	5 Year Average		1969	1970	1971	1972	10 Year Average 1963-72
	1958-62	1968-72					
	Gallons						
South Australia ..	538	683	708	724	705 <i>p</i>	687 <i>p</i>	643 <i>p</i>
Australia	417	551	525	584	574 <i>p</i>	577 <i>p</i>	513 <i>p</i>

p preliminary

In the past there has been a steady increase in average milk production per cow but from the early 1960s the average has increased rapidly. This increased production has been achieved through a more scientific approach to management of herds for milk production including the keeping of detailed herd records, selective breeding and culling, supplementary pasture, hay and silage diet with highly nutritious prepared feedstuff and the use of modern veterinary supplies and services. The continuing trend towards fewer but larger dairy farms reflects the pressures on the industry to achieve greater efficiency.

At March 1966 there were 10,046 holdings with cattle used or intended to be used for milk production, but by March 1971 the number had fallen to 6,076.

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 and other milk products and home consumption in the Metropolitan Milk Board area, a carefully considered estimate can be made.

The following table shows the estimated production of whole milk and the quantity of this milk used for various purposes in 1962-63 and later seasons.

Production and Utilisation of Milk, South Australia

Year	Total Milk Produced	Milk Used for					
		Butter		Factory Cheese (a)	Home Consumption		Other Purposes
		On Farm	In Factory		Milk Board Area	Outside Milk Board Area	
'000 gallons							
1962-63	95,378	553	31,229	33,492	18,282	10,206	1,616
1963-64	97,523	531	32,622	33,989	18,631	9,791	1,959
1964-65	102,330	458	33,435	37,857	18,991	9,805	1,784
1965-66	98,398	432	30,921	35,659	19,558	9,927	1,899
1966-67	98,727	396	29,458	37,710	19,462	9,780	1,921
1967-68	88,822	360	23,694	32,948	19,826	10,140	1,854
1968-69	102,808	324	28,331	42,445	19,831	10,036	1,842
1969-70	106,236	288	33,722	39,646	20,703	9,934	1,944
1970-71	103,336	252	28,488	41,902	21,004	9,635	2,055
1971-72	100,687	216	27,521	40,878	20,836	9,167	2,069

(a) Factory production accounts for virtually all cheese produced.

The Metropolitan Milk Board is constituted to regulate the treatment and marketing of milk within the Metropolitan Milk Board area. The duties of the Board include the fixing of the metropolitan producing district and the granting of milk producers and treatment licences. The Board may fix the prices of milk and sweet cream and may make recommendations on the quotas of milk and cream for sale.

Butter and Cheese

The quantities of butter and cheese produced during the last ten years are shown in the following table.

Butter and Cheese Production, South Australia

Year	Butter (a)	Cheese (b)	Year	Butter (a)	Cheese (b)
'000 lb			'000 lb		
1962-63	16,608	33,967	1967-68	12,271	32,773
1963-64	16,791	34,236	1968-69	14,633	42,221
1964-65	17,392	38,836	1969-70	17,379	39,437
1965-66	16,326	36,281	1970-71	14,685	41,681
1966-67	15,245	38,598	1971-72	14,176	40,662

(a) Includes factory and farm production.

(b) Factory production only.

PIGS

In South Australia pigs are normally kept as a sideline on mixed farms or in conjunction with dairy cattle and there are relatively few holdings specialising in pigs.

Although there have been substantial fluctuations in the pig population from year to year induced by the exceptional variability of prices, in the long-term the numbers have remained stable. The total number exceeded 200,000 for the first time in 1966 and has continued to exceed that number in subsequent years. Of the record number of 479,000 pigs at 31 March 1972, approximately 50 per cent were in Central and Murray Divisions.

The principal breeds in South Australia are Large White, Berkshire, Landrace and Tamworth.

The following table shows the number of pigs on rural holdings at 31 March for the last five years.

Pig Numbers, South Australia

At 31 March	Boars	Breeding Sows	All other	Total
1968.....	4,118	32,336	205,865	242,319
1969.....	4,632	38,615	244,772	288,019
1970.....	5,137	45,174	300,437	350,748
1971.....	5,521	49,560	334,336	389,417
1972.....	6,526	62,881	409,467	478,874

In the next two tables, pig herds at 31 March 1969, in size groups, are classified according to the size of the holding and the size of the herd of cattle for milk production on the holding. Of the 29,137 holdings of all types 5,596 carried pigs, while of the 7,159 holdings with milk cattle, 2,562 carried pigs.

Rural Holdings Classified According to Area of Holding and Size of Pig Herd South Australia, 1968-69

Area of Holding (acres)	Size of Pig Herd (numbers)					Holdings with Pigs	Total Number of Holdings
	1-9	10-19	20-49	50-99	100 and Over		
1- 19.....	124	46	87	59	44	360	5,385
20- 49.....	104	60	79	55	55	353	3,652
50- 99.....	81	39	84	40	56	300	2,298
100- 199.....	58	39	69	56	45	267	2,030
200- 399.....	79	49	97	55	61	341	2,049
400- 699.....	132	95	197	128	72	624	2,502
700-1,399.....	305	195	419	278	179	1,376	4,300
1,400-4,999.....	375	258	483	314	179	1,609	5,328
5,000 and over ...	99	58	105	69	35	366	1,593
All holdings .	1,357	839	1,620	1,054	726	5,596	29,137

Rural Holdings Classified According to Size of Milk Cattle Herd and Size of Pig Herd: South Australia, 1968-69^(a)

Size of Milk Cattle (a) Herd (numbers)	Size of Pig Herd (numbers)					Holdings with Pigs	Holdings with Dairy Cattle
	1-9	10-19	20-49	50-99	100 and Over		
1- 4	215	109	171	103	66	664	1,767
5- 9	156	104	172	77	38	547	1,094
10-19	122	115	198	126	75	636	1,166
20-49	53	66	135	119	68	441	1,486
50-99	43	18	43	47	53	204	1,164
100 and over	18	3	11	14	24	70	482
Total ..	607	415	730	486	324	2,562	7,159

(a) Herds comprising dairy-breed bulls used (or intended) for service, dairy-breed bull calves intended for service and/or cows, heifers, and heifer calves used (or intended) for the production of milk or cream for sale.

MEAT PRODUCTION AND MARKETING

South Australia is a relatively small meat producer, providing only about 8 per cent of total Australian production. The South Australian Meat Corporation (which replaced the Metropolitan and Export Abattoirs Board in November 1972) has the sole right within the Metropolitan Abattoirs area to slaughter stock for export as fresh meat in a frozen condition. It controls the handling and distribution of meat within this area and may fix the maximum number of stock sold in any one day in a Corporation controlled market. The following table shows the number of livestock slaughtered for human consumption (including exports) and the production of meat during the last ten years. Slaughtering and meat production on rural holdings are included in these figures.

Livestock Slaughtered and Meat Produced, South Australia

Season	Livestock Slaughtered for Human Consumption			Meat Production (Bone-in-Weight)			
	Cattle and Calves	Sheep and Lambs	Pigs	Beef and Veal	Mutton and Lamb	Pigmeat	Total
	'000			Tons			
1962-63 ..	254	3,467	235	36,420	58,919	11,810	107,149
1963-64 ..	279	2,996	214	39,759	52,864	11,163	103,786
1964-65 ..	275	3,100	241	37,268	55,392	12,656	105,316
1965-66 ..	277	3,474	298	36,513	60,738	15,223	112,474
1966-67 ..	265	3,358	316	38,754	62,476	15,947	117,177
1967-68 ..	245	4,019	310	33,074	68,730	15,787	117,591
1968-69 ..	220	2,977	317	35,617	56,824	15,939	108,380
1969-70 ..	249	4,232	386	40,059	78,172	19,765	137,996
1970-71 ..	264	5,101	435	42,807	90,471	22,181	155,459
1971-72 ..	291	5,144	436	49,277	90,058	22,729	162,064

Average market prices of some of the principal classes of livestock are set out in the next table. Generally prices fluctuate considerably from year to year, but for the beef lines a definite upward trend is evident over the past five years.

Livestock, Average Prices at Adelaide Market

Class of Stock	1968	1969	1970	1971	1972
Dollars					
Fat cattle:					
Bullocks and steers;					
Prime, medium ..	154.06	150.77	156.26	155.00	153.63
Good.....	132.89	135.67	140.44	135.80	131.80
Cows;					
Prime, medium ..	121.10	125.29	123.24	131.10	128.14
Good.....	103.04	109.51	108.75	113.21	108.73
Calves;					
Prime vealers ...	57.19	56.83	57.57	56.75	49.29
Good.....	38.04	44.64	40.95	40.55	34.92
Fat sheep:					
Merino wether;					
Prime	8.07	8.00	6.20	4.28	6.35
Medium	7.00	6.93	5.18	3.15	4.42
Lambs;					
Prime, medium ..	7.30	7.12	6.71	5.66	6.56
Good.....	6.59	6.24	5.84	4.31	5.07
Figs:					
Choppers	79.14	63.38	58.16	69.68	61.26
Baconers	39.39	38.07	34.24	39.76	34.63
Porkers	23.74	21.00	20.42	23.67	20.68

The Australian Meat Board, which was reconstituted under the *Meat Industry Act* 1964 controls the export of meat, its sale and distribution overseas, and advises on matters relating to quality and grading of meat for export. The trading powers of the Board enable it to purchase and sell meat in its own right for the purpose of developing existing markets or creating new markets where there are special problems or circumstances which preclude the effective participation of private traders.

Finance for the Board's operations is derived from a levy imposed under the *Livestock Slaughter Levy Act* 1964-1971. The levy is payable on the slaughter of all cattle (over 200 lb dressed weight), sheep and lambs for human consumption. The Act provides three elements in the levy for each class of livestock—an amount to finance meat research, an amount to finance the operations of the Australian Meat Board and, from 1 January 1972 until 31 December 1974, an amount to finance service and investigation activities relating to meat processing. The first two elements are paid by producers while the third element is paid by meat processors.

In February 1964 the Governments of Australia and the United States concluded an agreement for the regulation of beef, veal and mutton exports from Australia to the United States with the object of promoting the orderly development of the trade in these classes of meat between the two countries. From year to year quotas on imports of meat may be imposed depending on the estimated level of imports into the United States.

OTHER RURAL INDUSTRIES

Poultry Farming

Poultry farming is a specialised and distinct industry and it is from this source 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 raised for meat, known as 'broilers', account for over 90 per cent of total poultry slaughtered.

Feed is the single most important cost to this industry, and its correct use is vital for efficient production. Feeding is based on cereal grains and the by-products bran and pollard. Meat and bone meats are a major source of protein supplement coupled with other essential vitamins, proteins and minerals.

The main areas of commercial production are centred on the outskirts of the Adelaide metropolitan area, around Gawler and Murray Bridge, with other large pockets of production within a 50 mile radius of Adelaide.

The annual average egg production controlled by the South Australian Egg Board was 10.6 million dozen in the five years ended 1960-61, 10.1 million dozen over the next five years and 15.4 million dozen in the five years ended 1970-71. However, these figures do not take into account movement of eggs interstate independently of the Egg Board, which may represent a significant proportion of total egg production.

Broiler Industry

The broiler industry in South Australia has grown rapidly during the past thirteen years, annual production increasing from about half a million birds in 1959 to nearly 10 million birds at the present time.

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 3 lb. This rapid growth and efficient conversion of feed to meat has been achieved by extensive breeding programmes; the use of specially prepared high protein and energy value poultry feeds; growth promotion and disease control drugs; and by the development of enclosed, factory-like broiler houses, with controlled temperature, ventilation and light, conducive to fast growth.

A shed that is popular with broiler growers in this State, is a litter unit 40ft wide and 100 to 200ft long. Birds are stocked day old at the rate of 0.8 sq ft a bird and mostly in groups of 5,000 (for sheds 40ft by 100ft).

The broiler industry is a complex organisation requiring close co-operation between all links in the chain of production. Breeders, multipliers, hatcheries, growers, and poultry processors must combine to ensure efficient and streamlined production. This co-operation has produced a stable and efficient industry, bringing chicken meat to the consumer at a price comparing favourably with other meats.

Growers are usually under contract to large broiler processing organisations receiving a price per bird at marketing or a price per lb live weight. Price per lb live weight is the most popular method; under this method the grower provides the shed, equipment and labour and the processor provides the chicken, cost of brooding and feed. Usually the processor has a field serviceman who looks after his interests and ensures that growers are correctly rearing and caring for the stock.

The main production centres are located within a 50 mile radius of Adelaide near the processing works and main consumption outlets. Special concentrations of growers are at Murray Bridge, in the Adelaide Hills, and Gawler.

Nearly all South Australia's production is consumed locally, with some broilers being imported from Victoria and New South Wales.

A monthly collection of statistics on chicken hatchings and poultry slaughterings was commenced in South Australia in July 1966, the following tables show

the number of eggs set, chicks hatched and poultry slaughtered for the last five years.

**Eggs Set and Chicks Hatched in Commercial Hatcheries
South Australia**

Year	Eggs Set (a)		Chicks Hatched (b) and Intended to be Raised for:				
	Meat Strains	Egg Strains	Chicken Meat		Egg Production	Breeding (d)	
			Meat Strains: Unsexed	Egg Strains: Cockerels (c)	Egg Strains: Pullets (c)	Egg Strains	
						Pullets	Cockerels
			'000				
1967-68 ..	7,407	5,060	5,218	134	1,904	51	4
1968-69 ..	6,546	5,049	5,053	180	1,854	32	7
1969-70 ..	8,090	5,971	6,173	373	2,136	41	6
1970-71 ..	11,891	5,885	9,100	300	2,125	52	5
1971-72 ..	13,253	4,933	10,431	117	1,876	24	6

(a) Including eggs which failed to hatch.

(b) Excluding chicks destroyed.

(c) Egg strain chicks sold as 'unsexed' have been allocated equally between chicks for chicken meat and chicks for egg production. The number so reported was 103,000 in 1967-68; 98,000 in 1968-69; 108,000 in 1969-70; 69,000 in 1970-71; and 70,000 in 1971-72.

(d) Details of meat strain chicks for breeding purposes are not available for publication.

**Poultry Slaughtered for Human Consumption
South Australia^(a)**

Period	Chickens (Broilers, Fryers, or Roasters)	Hens and Stags	Ducks and Drakes	Turkeys	Total
	NUMBER SLAUGHTERED ('000)				
1967-68	4,278	285	35	15	4,613
1968-69	4,415	282	35	21	4,753
1969-70	5,597	287	46	34	5,964
1970-71	7,894	341	50	23	8,308
1971-72	9,887	502	45	10	10,443
	LIVE WEIGHT OF POULTRY SLAUGHTERED ('000 lb)				
1967-68	14,341	1,440	196	205	16,182
1968-69	14,551	1,474	190	281	16,496
1969-70	18,748	1,457	281	434	20,919
1970-71	27,214	1,680	326	304	29,524
1971-72	34,053	2,606	260	140	37,059
	DRESSED WEIGHT OF POULTRY SLAUGHTERED ('000 lb) (b)				
1967-68	10,962	964	138	155	12,219
1968-69	10,937	987	130	215	12,269
1969-70	13,879	996	187	340	15,403
1970-71	19,838	1,163	222	229	21,452
1971-72	24,420	1,763	184	101	26,469

(a) Excludes geese slaughtered.

(b) Dressed weight of whole birds, pieces and giblets as reported by producers.

Beekeeping

Beekeeping in South Australia is a small industry—in 1971-72 there were 821 keepers with five 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.

Beekeeping, South Australia^(a)

Season	Beekeepers	Hives		Honey Produced	Yield of Honey per Productive Hive	Beeswax Produced
		Productive	Un-productive			
	No.	No.	No.	'000 lb	Lb	'000 lb
1967-68	812	60,763	12,006	6,844	113	105
1968-69	768	54,838	15,046	5,770	105	92
1969-70	798	67,677	11,284	10,638	157	157
1970-71	805	67,267	13,583	7,032	105	102
1971-72	821	73,412	14,055	9,428	128	133

(a) Excludes particulars for producers having less than five hives.

VALUE OF RURAL PRODUCTION

The value of rural production may be expressed in terms of gross value, local value and net value. Gross value is the value placed on recorded production at the wholesale prices realised in principal markets. Local value equals the gross value of production less marketing costs, and net value of production equals local value less the value of materials used in the process of production.

Details for the last five years of gross value of rural production are given in the following table.

Gross Value of Rural Production, South Australia

Class of Production	1967-68	1968-69	1969-70	1970-71	1971-72 ^p
	\$'000				
Agricultural	127,288	221,097	186,766	166,322	215,010
Pastoral	129,504	136,070	148,939	123,858	153,069
Dairying	37,163	39,016	40,834	43,918	47,344
Other rural	12,267	12,659	11,984	14,368	17,167
Total	306,222	408,842	388,523	348,465	432,591

^p preliminary

Earlier information on the gross value of rural production is given in the Statistical Summary page 634.

9.2 MINING, FORESTRY AND FISHERIES

MINING

South Australia has a well developed and growing mineral industry and, although iron ore is the major product, the State also has very large resources of industrial minerals which make up a significant proportion of the total annual value of mineral production—exceeding \$110 million in 1971.

MINING ADMINISTRATION

The Mining Act, 1971 which repealed the Mining Act, 1930-1962 and amended the Petroleum Act, 1940-1969 and the Crown Lands Act, 1929-1969 regulates and controls mining operations. Under this Act all minerals are reserved to the Crown.

The Mines and Works Inspection Act, 1920-1970 regulates in respect to the state and conditions of the mine, machinery, ventilation, and all other things relating to the safety, health and well-being of the employees and general public.

The Petroleum Act, 1940-1971 and the Petroleum (Submerged Lands) Act, 1967-1969 provide for the control of petroleum exploration and the production, conservation and distribution of petroleum by pipeline.

The Underground Waters Preservation Act, 1959-1970 provides for the control of water boring and of groundwater usage in 'defined areas', and for the licensing of drillers.

The administration of these Acts is the responsibility of the Minister of Mines and the Director of Mines. The principal functions of the Department of Mines are:

- (i) The administration of mining and petroleum legislation including the granting of mineral leases and collection of royalties and fees;
- (ii) Geological and geophysical investigations to ascertain the extent and nature of the State's mineral resources;
- (iii) Drilling to test mineral deposits, petroleum reserves and underground water supplies;
- (iv) Development of sub-surface water supplies for farming, pastoral, irrigation and mining purposes;
- (v) Control of development of underground water in certain defined areas;
- (vi) The testing and treatment of minerals, generally in arrangement with the Australian Mineral Development Laboratories;
- (vii) Control of mining and rehabilitation.

MINERAL INDUSTRY STATISTICS

Mining industry data (such as employment, costs, value of output, etc.) has been obtained annually since 1952 from the Mining and Quarrying Census carried out in collaboration with the Department of Mines. The details have been collected from establishments employing on the average four or more persons during the period worked by the mine. For smaller mines employing less than four persons particulars were compiled from data made available by the Department of Mines. Statistics compiled from these Censuses have been published by the Commonwealth Statistician in *Non-rural Primary Industries* bulletins and other Bureau publications.

In 1968 and earlier years, the annual Mining and Quarrying Census related to years ended 31 December. However, commencing with 1968-69, the Mining Census was changed to a year ended 30 June to conform with the period covered by other economic censuses in Australia.

The 1968-69 Census differed from previous censuses and therefore the statistics obtained from it and subsequent censuses are not strictly comparable with statistics of the mining industry which have been published for previous years. Statistics for 1968-69, 1969-70 and 1970-71 have been published by the Commonwealth Statistician in the bulletin *Mining Establishments, Summary of Operations* (Reference No. 10.55).

Number of Establishments

The next table shows the number of establishments which operated during the year 1970-71. These relate to mining establishments as such and do not include the numbers of separately located administrative offices and ancillary units.

Mining Establishments: Number Operating, Persons Employed, Wages and Salaries, by Industry Sub-division, South Australia, 1970-71

Industry Sub-division	ASIC Code (a)	Number of Establishments Operating during 1970-71	Persons Employed (b)			Wages and Salaries
			Males	Females	Total	
						\$ million
Metallic minerals	11	12	} 953	92	1,045	4.7
Coal	12	1				
Crude petroleum including natural gas	13	1				
Construction materials	14	94	523	21	544	2.2
Other non-metallic minerals	15	54	390	15	405	1.6
Total mining, excluding services to mining		162	1,866	128	1,994	8.5

(a) Australian Standard Industrial Classification.

(b) At 30 June 1971; includes working proprietors.

Employment

The statistics of the number of persons employed relate to working proprietors at the end of June 1971 and employees on the payroll of the last pay period in June 1971, including those working at separately located administrative offices and ancillary units in the State. Note that persons employed in South Australia (and their wages and salaries) relate to those employed at establishments, administrative offices or ancillary units located in this State, even though the administrative offices or ancillary units may have served establishments located in another State.

Wages and Salaries

The wages and salaries of all employees of the establishment include those working at separately located administrative offices and ancillary units in the State. Drawings of working proprietors are not included.

Turnover

The following table shows sales of minerals and other goods, whether produced by the establishment or not, plus transfers out of minerals and other goods to other establishments of the same enterprise, plus bounties and subsidies on production, plus all other operating revenue from outside the enterprise (such as commission, repair and service revenue) plus capital work for own use, or for rental or lease. Receipts from rents, leasing, interest (other than hire-purchase), royalties and the sale of fixed tangible assets are excluded.

**Mining Establishments: Turnover and Value Added by Industry
Sub-division, South Australia, 1970-71**

Industry Sub-division	ASIC Code (a)	Turnover	Stocks at 30 June		Purchases, Transfers in and Selected Expenses	Value Added
			1970	1971		
			\$ million			
Metallic minerals	11	} 74.4	2.5	3.2	22.7	52.4
Coal	12					
Crude petroleum including natural gas ..	13					
Construction materials	14		9.7	0.7	0.8	3.0	6.8
Other non-metallic minerals	15	12.8	1.7	1.6	6.2	6.5
Total mining, excluding services to mining		96.9	4.9	5.6	31.9	65.7

(a) Australian Standard Industrial Classification.

Purchases, Transfers In and Selected Expenses

These figures include purchases of electricity, fuels, stores and other materials, plus transfers in of goods from other establishments of the same enterprise, plus charges for processing and other commission work and payments to mining contractors, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.

Stocks

Figures include all the stocks of materials, fuels, etc., and mine products and work-in-progress of the establishment whether located at the establishment or elsewhere.

Value Added

Value added as shown in the preceding table is calculated as turnover plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

MINERAL COMMODITY STATISTICS

Mineral commodity statistics published in the *South Australian Year Book* are those recorded by the Director of Mines. The quantity and value of production of the major minerals for the years 1969 to 1971 are listed in the following table.

Mining and Quarrying Production, South Australia^(a)

Mineral	Unit of Quantity	Quantity			Value		
		1969	1970	1971	1969	1970	1971
					\$'000		
Metallic:							
Copper					151	1,464	1,875
Iron ore	'000 tons	6,931	7,584	6,758	61,159	66,701	59,672
Pyrite concentrate ..	'000 tons	64	62	63	891	867	696
Other .....	..	..	..	..	263	23	4
Non-metallic:							
Barite	'000 tons	36	41	20	419	490	240
Clays	'000 tons	683	659	668	1,008	974	975
Coal	'000 tons	2,210	1,827	1,468	3,265	3,097	3,082
Dolomite	'000 tons	275	304	346	506	572	683
Gypsum	'000 tons	717	657	642	1,779	1,612	1,588
Limestone	'000 tons	1,773	1,824	1,754	2,675	2,794	2,666
Opal (b)					7,327	7,700	11,000
Salt	'000 tons	563	544	686	2,254	2,174	2,746
Talc, soapstone	'000 tons	12	14	11	187	263	211
Other .....	..	..	..	..	188	126	391
Construction material							
quarrying	'000 tons	16,057	15,006	15,772	16,605	15,524	16,169
Natural gas	millions of cu ft	..	22,186	32,103	..	(c)6,250	(c)8,500
Total .....	..	..	..	..	98,677	110,631	110,498

(a) Quantities disposed of as recorded by the Director of Mines.

(b) Estimated in 1970 and 1971.

(c) Value at city gate.

Details of mining of individual minerals are given below. Reference should also be made to Part 1.3 which contains particulars of the location of mineral resources. The map on page 27 shows a number of localities referred to in this section.

Iron Ore

The only proved high grade iron ores of South Australia lie in the Middleback Ranges to the west of Whyalla. The ranges are composed primarily of iron-rich rocks in which occur local concentrations of high grade ore.

The Iron Monarch deposit near Iron Knob has provided the bulk of the iron ore for Australia's steel industry for many years. Production from this and the smaller deposits of Iron Prince and Iron Baron is maintained by the Broken Hill Pty Co. Ltd.—in 1971 production was more than 6.7 million tons. The bulk of the ore is shipped to Newcastle and Port Kembla, but a proportion is exported in pellet form and some is used for the production of iron in the Whyalla blast furnaces. The molten iron is transferred from the blast furnaces to the basic oxygen steel plant, where ingot steel is produced for use in the Whyalla rolling mills.

Reserves of high grade iron ore are estimated at about 170 million tons. The grade of ore at more than 60 per cent iron is high by world standards. In view of the known limitation of high grade ore, the Broken Hill Proprietary Company

has carried out an active exploration programme, and is also planning future use of the very large reserve of low grade siliceous ores known to exist in the Middleback Ranges.

Barite

There are widespread occurrences of barite (barytes) throughout the Adelaide System rocks of South Australia. Deposits are located in a number of areas including the Mount Lofty and Flinders Ranges and the Olary district.

Barite is still used in the paint and other industries, but the main use is in drilling mud for oil exploration where the grade does not have to be so high. Production of barite totalled 20,000 tons in 1971.

The company operating the Oraparinna Mine in the Flinders Ranges has been the major Australian producer of barite for some years.

Gypsum

South Australian deposits contain by far the largest part of Australian reserves of gypsum. The deposits have in general been formed in coastal basins cut off from the ocean, giving rise to extensive deposits of rock gypsum. The most important coastal deposits are found at Lake MacDonnell, Stenhouse Bay and on Kangaroo Island. Inland deposits mainly of seed gypsum occur at Moonabie, Lake Fowler, Cooke Plains and along the Murray River. The gypsum deposits have been worked extensively over the past fifty years to provide the bulk of Australasian requirements for the plaster industry and for portland cement manufacture. Production exceeded 642,000 tons in 1971.

Reserves of high grade gypsum at Lake MacDonnell have been proved by the Department of Mines to exceed 500 million tons, sufficient to meet Australia's requirements for many generations. Because of its remote location on the west coast of South Australia, development of the deposit has been slow. The new rail link, constructed between the deposit and the bulk loading installations at the port of Thevenard, has reduced rail distance from 63 to 34 miles, and the port has been deepened to accommodate larger ships of up to 20,000 tons capacity. The value of overseas exports of gypsum from South Australia during 1971-72 amounted to \$921,000.

Salt

The semi-arid climate and high evaporation rate along much of South Australia's coastline, together with the high salinity of the gulf waters, create very favourable conditions for the production of salt by solar evaporation. In the early days the availability of sites close to cheap transport led to the establishment of solar salt works at the head of Spencer Gulf near Port Augusta and at Whyalla, at Price on the eastern shore of Yorke Peninsula, and in 1940 at Dry Creek near Adelaide. In addition several operators recover salt from shallow salt-lakes on Yorke Peninsula and elsewhere. The Broken Hill Proprietary Company which has been producing 60,000 tons of salt a year near Whyalla is now expanding its capacity.

At present South Australia produces over 600,000 tons annually, and provides approximately two-thirds of Australia's salt requirements. The industry in South Australia is capable of expansion, but the future export market appears to have been largely captured by salt development in Western Australia, where ports for very large ships are available.

The value of overseas exports of salt from South Australia amounted to \$401,000 in 1971-72.

Opal

The estimated value of raw opal production exceeded \$11 million in 1971. In terms of value it ranked second only to iron ore as the most important mineral produced in South Australia during 1971. Overseas exports of opal from South Australia during 1971-72 were reported at \$3,263,000.

In spite of the value of opal being won at present, opal mining remains a small scale operation. Both Andamooka and Coober Pedy are small outback settlements with few amenities and with floating populations. The distances from Port Augusta to Andamooka and from Port Augusta to Coober Pedy are 200 and 400 miles respectively.

Mining at both centres is relatively shallow, rarely exceeding 90 feet. The extent of the opal fields is not known as there has been little systematic exploration, but it is probable that the fields will continue to yield the gem for many years.

Pyrite

In the vicinity of Nairne, 30 miles south-east of Adelaide, there has long been known to exist a large body of iron pyrite but until 1950 this deposit was of little economic significance. However, a world shortage of sulphur, upon which the fertiliser industry is dependent for sulphuric acid, made it necessary to utilise local sources at that time.

Limited exploration of the deposit was made by private enterprise, and extended by the Department of Mines. This resulted in the proving, over some two miles in length, of 14 million tons of mineable ore containing 10 per cent of recoverable sulphur. Development, sponsored and aided by the Government, was then undertaken as a joint enterprise by local companies. Regular production commenced in 1955 at the annual rate of 330,000 tons of ore yielding 82,000 tons of concentrate, containing 33,000 tons of sulphur. The concentrate is processed and the product subsequently used in fertiliser manufacture at Port Adelaide.

Company operations at Brukunga have extended the known ore reserves to 24 million tons over a length of about two miles, extending both north and south of the present quarry workings. Reserves of pyritic ore now remaining in the deposit total 19 million tons. However, excess production of sulphur from Canadian and other natural gas fields has led to a slump in sulphur prices and forced the company to cease operations in May 1972.

Talc

The principal occurrences of talc are to be found at Mount Fitton in the Northern Flinders Ranges and in the Gumeracha district. From these sources 11,324 tons were mined in 1971. The Mount Fitton talc is particularly high grade, and is in demand for use by the cosmetic industry. Lower grade material is used in the rubber, paint, and ceramics industries.

Coal

South Australia is deficient in bituminous coal resources and the only mining is of sub-bituminous coal at Leigh Creek. The present development of the field commenced with Department of Mines drilling operations in 1941. The Electricity Trust of South Australia assumed control of the field in 1948 and developed it as a source of fuel for the Port Augusta power station. Meanwhile testing by the Department of Mines continued for some years, proving a total of

52 million tons of coal available by open cut methods and a further 370 million tons of underground reserves.

Coal production in 1971 was approximately 1.5 million tons. Almost the entire production is railed to Port Augusta for use in power generation.

Natural Gas

The natural gas production in 1971 was 32,102 million cubic feet valued at city gate Adelaide at \$8.5 million.

Limestone and Dolomite

The combined quantity of limestone and dolomite extracted each year is in excess of 2 million tons. The principal deposits mined are limestone at Rapid Bay and dolomite at Ardrossan for the steel industry, limestone at Penrice, near Angaston, for the chemical and cement industries, lime sand from Coffin Bay for the metallurgical industry, and limestone at Klein Point for the cement industry. Approximately half a million tons of lime sand is produced each year from the very large deposits at Coffin Bay, and railed to Port Lincoln for trans-shipment to the Whyalla blast furnaces, the smelters at Port Pirie, and interstate.

Limestone Production, South Australia (Excluding Limestone Used as Building Stone, Road Materials, etc.)

Classification	1967	1968	1969	1970	1971
	'000 tons				
Flux.....	788.1	697.3	737.5	847.1	712.0
Cement	527.9	559.1	720.9	626.8	701.1
Chemical	255.2	287.1	297.9	331.3	325.0
Other.....	19.6	14.1	16.9	18.6	15.6
Total	1,590.8	1,557.5	1,773.2	1,823.8	1,753.8

Clay

South Australia possesses a wide variety of clays which are used for industrial purposes such as cement manufacture, building bricks and roofing tiles, refractory ware, pottery and ceramic purposes.

Because of the scarcity of local timber supplies, softwoods excepted, much greater use is made of clay bricks for construction in South Australia than in other parts of Australia. The clay brick industry is concentrated near Adelaide.

There are also widely distributed occurrences of special clays for ceramic and refractory ware, the most noteworthy being the ball clay at Wocalla, china clay at Mount Crawford, and fire clay at Birdwood, Littlehampton, Tea Tree Gully, Booleroo Centre, and Lincoln Gap.

The Department of Mines, together with the Australian Mineral Development Laboratories, is continually engaged in investigations relating to the usage of clay deposits encountered during geological surveys throughout the State.

Details of clay production for the years 1967 to 1971 are given in the following table.

Clay Production, South Australia

Classification	1967	1968	1969	1970	1971
	'000 tons				
Brick clay and shale	419.3	477.3	557.1	566.3	565.1
Cement clay (shale)	34.2	35.7	38.6	34.2	32.1
Fire clay	21.5	37.8	44.8	24.9	46.7
Kaolin and ball clay	8.5	8.0	9.8	17.8	10.1
Pottery clay	29.0	33.7	32.5	15.6	13.9
Total	512.5	592.5	682.8	658.8	667.9

Construction Material Quarrying

Post-war industrial expansion, accompanied by extensive housing programmes and highway construction has resulted in a rapidly increasing demand for construction materials. Production was 15.7 million tons in 1971 compared with 2.2 million tons in 1947.

A variety of building stones is quarried including Mount Lofty sandstone, a white stone which hardens in the atmosphere; Basket Range sandstone, a light coloured stone of pleasing appearance, and Mount Gambier limestone, a bryozoal limestone of the South East. Limestone deposits have also been worked at Overland Corner, Cadell and Waikerie. A quantity of granite is extracted each year and marble occurrences are worked at Angaston, Kapunda, Macclesfield and Paris Creek. The main sources of slate in South Australia are at Mintaro and Willunga. Both areas supply paving slate and a large quantity of Mintaro slate is dressed and polished as there has been a strong demand for this type of slate for use in billiard tables.

Building Stone, South Australia

Type of Stone	1967	1968	1969	1970	1971
	'000 tons				
Granite	4.8	4.6	5.4	4.5	5.1
Gravel.....	—	—	—	0.1	0.2
Limestone.....	16.4	16.4	25.7	27.0	24.7
Marble	2.9	1.5	2.8	3.1	5.3
Quartz.....	—	—	0.2	0.9	1.0
Sandstone	12.1	11.8	11.1	11.6	10.3
Slate	10.5	7.2	2.9	3.5	2.0
Total	46.7	41.5	48.1	50.7	48.6

Production of other construction materials is shown in the following table. The importance of limestone (predominately for construction of roads) and quartzite (mainly in the form of screenings) can be seen.

Road and Other Construction Materials, South Australia

Type of Material	1967	1968	1969	1970	1971
	'000 tons				
Limestone.....	5,640	4,344	5,874	4,726	4,547
Quartzite.....	3,208	3,217	3,792	3,171	3,644
Sand	1,756	2,077	2,884	2,585	2,664
Other materials	2,658	1,673	3,459	4,473	4,869
Total	13,262	11,311	16,009	14,955	15,724

MINERAL DEVELOPMENTS

In 1972 further development work was undertaken in the Brolga, Brumby, Burke, Dullingari and Kanowana natural gas fields. No new oil accumulations were found.

Negotiations for the supply of natural gas from the Cooper Basin area to the Sydney, Newcastle and Wollongong areas have now been concluded and planning of the project is well advanced.

It is anticipated that a liquids pipe line from the Cooper Basin to the coast near Port Augusta will come into operation about 1976. A petrochemical plant to produce caustic soda and ethylene dichloride at the pipeline terminal is also being considered. If this is established the pipeline will transport crude oil, natural gas condensate, and ethane feed stock for the plant.

All household gas appliances in Adelaide are now using natural gas from the Gidgealpa area. In 1972 an average of about 99 million cubic feet of gas a day was being supplied to the Adelaide area compared with an average of 88 million in 1971. About 70 per cent of this was used at the Torrens Island power station in generating electricity. Natural gas is also supplied to Peterborough mainly for power generation and to Angaston mainly for cement manufacture and will be supplied to Burra in 1973.

Major exploration is still continuing for copper, uranium and other minerals but at a reduced rate. The amount expended on exploration areas in 1971 by companies holding Special Mining Leases or Exploration Licences (as they are now called under the Mining Act, 1971) was \$4.2 million compared with the record of \$5.8 million in 1970, and the activity was further reduced in 1972 but interest appeared to be increasing again by the end of the year. The South Australian Department of Mines is spending a further \$2 million a year in geological and other investigations, drilling and mineral research work to help the growth of the mineral industry. Also the oil exploration companies expended over \$9 million in their search in South Australia. South Australia's output of copper is increasing with the reopening of several old copper mining areas which have been unproductive for nearly a century.

Production from the old open cut mine at Burra commenced in February 1971, and the second stage of the ammonia leaching plant will open in mid-1973. This additional plant, which involves the heating of the fine ore before leaching, will cost \$3.7 million and will use natural gas from the Gidgealpa to Adelaide pipeline. The company has over 3 million tons of 1.5 per cent copper grade remnant ore to mine and produces high grade black copper oxide ore.

At the old Kanmantoo copper mining area, 35 miles east of Adelaide, \$9.3 million has been expended to establish a new open cut mine with a flotation

treatment plant for its one per cent grade sulphide copper ore. Production commenced in October 1971 and by the end of June 1972, 478,000 tons of sulphide ore had been treated and 13,345 tons of 26 per cent grade concentrate which is being shipped to Japan had been produced. About 500,000 tons of oxidised ore has been stockpiled and nearly 5 million tons of overburden have been removed.

The open cut Mount Gunson mine and flotation plant which had produced 3,800 tons of about 57 per cent grade copper concentrate in 1971 was closed temporarily in December 1971 awaiting an increase in the price of copper. The retreatment of the old Wallaroo mine dumps at Kadina also ceased in 1972 because of the lower copper prices.

At the old Kapunda copper mine, 50 miles north of Adelaide, exploration has revealed ore in excess of four million tons of one per cent copper grade.

The value of mineral production for South Australia in 1971 amounted to \$110.5 million, almost the same as in 1970. The value of iron ore production decreased by \$7 million to \$59.7 million but the estimated value of opal production increased by \$3.5 million and the value of the natural gas used increased by \$3.3 million to \$8.5 million. In 1970-71 the mining industry contributed one-quarter of the whole primary production of South Australia. The net value of the mineral production equalled that of the whole pastoral industry and including wool and meat and contributed as much as 78 per cent of the whole agricultural industry including all cereals, fruit, wine, vegetables and other crops.

Another important recent development for the mineral industry has been the establishment of the Australian Mineral Foundation Inc. which is a national institution formed to serve the mining and petroleum industries throughout Australia and probably South East Asia. Its primary purpose is to provide short-term specialist training at professional and sub-professional level for these industries. The Foundation has been established on land donated by the South Australian Government alongside the Australian Mineral Development Laboratories (AMDEL) and the Natural Pipeline Authorities headquarters. The South Australian Department of Mines is also to be moved to this location which is being developed as a mineral science centre. A gift of \$1 million has enabled a very attractive headquarters building to be erected for the Foundation.

The following table shows details of private mineral exploration, other than petroleum, in South Australia for 1969-70 and 1970-71.

Private Mineral Exploration (Other than Petroleum), South Australia^(a)

Particulars	Unit	On Current Producing Leases		On Other Areas		Total Private Exploration	
		1969-70	1970-71	1969-70	1970-71	1969-70	1970-71
Footage:							
Drilled.....	'000ft	45	25	545	616	591	641
Sunk or driven	'000ft	5	—	18	13	23	13
Man weeks worked (b)....	'000	0.9	0.5	10.0	10.8	10.9	11.2
Expenditure:							
Drilling	\$'000	276	33	1,427	1,735	1,703	1,768
Other.....	\$'000	305	229	3,752	4,223	4,057	4,452
Total expenditure	\$'000	581	263	5,179	5,957	5,760	6,220

(a) Excludes exploration for water and all developmental work.

(b) Excludes work carried out by contractors.

Details of private petroleum exploration and development for South Australia are shown in the following table for the years 1966 to 1970.

Private Petroleum Exploration and Development, South Australia

Particulars	Unit	1966	1967	1968	1969	1970
Wells drilled (a).....	number	13	15	15	14	23
Footage drilled	'000ft	57.2	105.0	99.5	64.4	134.5
Expenditure:						
Private sources	\$'000	4,059	6,257	3,261	4,311	6,431
Government subsidy (b)	\$'000	769	1,058	1,407	609	923
Total expenditure	\$'000	4,828	7,315	4,668	4,920	7,354

(a) Number of wells reaching total depth during year.

(b) Payments under the *Petroleum Search Subsidy Act 1959-1964*.

FORESTRY

There are an estimated 15.2 million acres of land classified as forested in South Australia, and much of this is of low grade or little current economic value. Some 2.2 million acres carries forest or woodland, a decreasing part of which is still exploited for minor quantities of timber and fencing or firewood materials. Many of the forested or wooded areas are of considerable value for soil conservation, watershed protection, shelter, shade, conservation of indigenous plants and animals, and natural scenery.

Certain areas have been set aside as State forest reserves, the area thus reserved at 30 June 1972 being 307,290 acres. In addition the Woods and Forests Department is responsible for 5,181 acres of reservoir lands, of which 2,583 are planted with pines. Although the total area reserved has shown little fluctuation since 1929 the area under plantation has been consistently increasing.

A more detailed history of forestry development in South Australia was included on pages 432-4 of the *South Australian Year Book 1970*.

Indigenous Forests

The natural forests of South Australia consist of eucalypt hardwoods restricted principally to the Mount Lofty Ranges, the lower Flinders Ranges, the southern portion of Eyre Peninsula, and the South East. A few species are of commercial value and these are devoted largely to the production of poles, posts, rails and sleepers. The mallee lands are a source of some firewood. Some areas of forest reserves not planted with conifers are maintained in natural hardwoods but it is unlikely that further hardwood plantations will be established except in small trial areas.

Plantations

Exotic softwoods accounted for approximately 98 per cent of the planted forest area at 30 June 1972.

As can be seen from the accompanying tables 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 has proved ideal for forestry activity, but the upper South East is not suitable for commercial forestry.

The following table clearly illustrates the overwhelming importance of one species, *Pinus radiata*, in the composition of South Australian forests.

Forests, South Australia
Area Planted during 1971 and Net Area of Plantations at 31 March 1972

Location	Planted during 1971			Plantations at 31 March 1972		
	Softwoods		Hard-woods	Softwoods		Hard-woods
	<i>Pinus Radiata</i>	Other Pinus		<i>Pinus Radiata</i>	Other Pinus	
State forests:	Acres					
South East;						
Penola	419	78	—	29,750	4,772	165
Mount Burr	—	—	—	23,243	1,421	169
Mount Gambier	851	—	—	18,747	1,900	18
Myora	470	—	—	13,616	530	—
Caroline	554	—	—	13,598	1,416	—
Tantanoola	707	258	—	17,782	2,415	15
Comaum	53	—	—	6,655	757	16
Other	879	—	—	4,409	270	4
Total South East ..	3,933	336	—	127,800	13,481	387
Central;						
Mount Crawford	728	—	1	9,333	764	484
Kuitpo	33	—	—	5,080	1,038	353
Second Valley	226	—	—	2,983	479	150
Kersbrook	—	—	—	1,496	122	—
Total Central	987	—	1	18,892	2,403	987
Northern	305	—	—	6,775	257	642
Reservoir	52	—	—	2,301	278	4
Western	9	6	—	115	59	1,333
Total State forests	5,286	342	—	155,883	16,478	3,353
Private forests:						
South East (a)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	36,990	—	—
Other	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,361	—	285
Total private forests	1,042	<i>n.a.</i>	<i>n.a.</i>	40,351	—	285
Total forests	6,670	<i>n.a.</i>	<i>n.a.</i>	212,712	—	3,638

(a) Small plantations on farming properties have been included in 'Other'.
n.a. not available

The 342 acres of 'Other' softwoods planted in State forests during 1971 were mostly *Pinus pinaster* which is used on sites unsuitable for commercial growth of *Pinus radiata*. In all, some twenty-five species of pines are growing in State forests, although the majority were planted in earlier periods of experimentation.

Forests, South Australia
Net Area of Plantations at 31 March

Location	1968	1969	1970	1971	1972
State forests:					
South East;	Acres				
Penola	31,550	32,630	33,428	34,326	34,687
Mount Burr	32,490	33,742	24,122	24,850	24,833
Mount Gambier	19,260	19,383	19,474	20,057	20,666
Myora	12,282	12,746	13,279	13,683	14,146
Caroline	11,632	12,005	13,339	14,460	15,014
Tantanoola	7,120	7,541	18,937	19,337	20,212
Comaum	6,421	6,846	7,232	7,379	7,428
Other	2,760	3,055	3,424	3,977	4,682
Total South East ..	123,515	127,950	133,235	138,069	141,668
Central;					
Mount Crawford	8,544	9,008	9,407	9,852	10,582
Kuitpo	6,397	6,403	6,438	6,438	6,470
Other	4,530	4,671	4,928	5,183	5,230
Total Central	19,471	20,082	20,773	21,473	22,282
Northern	6,981	7,201	7,220	7,373	7,674
Reservoir areas	2,140	2,222	2,403	2,531	2,583
Western	968	968	1,343	1,357	1,506
Total State forests ..	153,075	158,424	164,974	170,803	175,713
Private forests:					
South East (a)	37,194	37,629	} 39,969	39,447	40,636
Other	3,941	3,941			
Total private forests	41,135	41,570	39,969	39,447	40,636
Total forests ...	194,210	199,994	204,943	210,250	216,350

(a) Small plantations on farming properties have been included in 'Other'.

Seedlings raised in nurseries are planted out at densities of 700-900 trees to the acre. A series of thinnings, starting when the trees are about 60 feet high, reduces density to 100-150 trees to the acre by about age thirty. These thinnings are carried out on a commercial basis and make the major contribution to present timber and pulpwood output. The final felling age is aimed at forty to fifty years although for management purposes some earlier felling has been made in the past. Trees of the same age may vary in height; on some sites trees reach 60 feet after ten years of growth, but on other sites this height may not be reached until after twenty years of growth.

FOREST ADMINISTRATION

State Forests

State forests are administered by the Woods and Forests Department, the head of which is the Conservator of Forests. The forest reserves are organised into Districts and are under the charge of professionally trained foresters. The Department is also the major timber producer in South Australia, and operates three sawmills and two wood preservation plants through its commercial division.

In earlier years when large areas of plantations were being established expenditure by the Department exceeded revenue, but since 1942-43 the revenue has exceeded expenditure including depreciation and interest on loans. By 1954-55 accumulated surpluses had almost matched expenditure on establishment and maintenance of plantations, and it was decided to pay future annual surpluses of the Department to Consolidated Revenue.

Funds employed by the Woods and Forests Department, including its milling operations, amounted to \$31,474,000 at 30 June 1972 of which \$18,586,000 was timber and land at net cost. During 1971-72, working account receipts from the forestry operations of the Department were \$11,789,000 as against payments of \$10,942,000. The present value of the State pine forests is approximately \$60 million.

Private Forests

Private forests accounted for approximately 20 per cent of the planted area at 31 March 1972. Three private companies operating pine plantations in the South East control the bulk of private forest land, the balance representing a large number of holdings of a few acres on farming properties throughout the State.

PRODUCTION

The following table gives the quantity and value of forest logs used during the years from 1966-67 to 1970-71.

Forest Log Usage, South Australia

Year	Softwoods		Hardwoods	
	Quantity	Value (a)	Quantity	Value (a)
	'000 sup ft (b)	\$	'000 sup ft (b)	\$
1966-67	334,111	5,852,789	5,039	114,222
1967-68	312,593	5,303,640	5,147	117,696
1968-69	328,241	n.a.	5,418	n.a.
1969-70	346,022	n.a.	5,564	n.a.
1970-71	370,580	n.a.	4,417	n.a.

(a) Value on mill skids. (b) Full round measure. n.a. not available

Log production is met from final fellings and thinning operations, and planned forest management ensures that the amount of timber cut each year does not exceed new growth. As planting during the ten years before 1925 was relatively small, final fellings in recent years have been limited, and thinning operations currently provide over 80 per cent of log production. With the increasing area of forest reaching the stage of regular and repeated thinning at intervals of about seven years, log production is rising steadily towards the full annual yield which can be cut indefinitely.

Other forest products include firewood, yacca gum and wattle bark.

EMPLOYMENT

The number of persons directly employed by the Woods and Forests Department in forestry activity in recent years is given below. The Department also employs some 600 persons in milling activities. The townships of Mount Burr (population 589 at 30 June 1971) and Nangwarry (802) are maintained by the Department.

**State Forestry Employees, South Australia
At 30 June**

Classification	1968	1969	1970	1971	1972
Professional staff:					
Foresters.....	38	37	37	44	49
Other.....	37	39	40	41	36
Non-professional field staff	12	30	28	30	27
Clerical staff.....	112	110	112	115	119
Labour (silvicultural forest works, etc.)	313	263	258	285	246
Total	512	479	475	515	477

The extraction of timber from State forests is carried out by contractors.

RESEARCH AND ADVISORY SERVICES

The virtual dependence of the South Australian forestry industry on a single species necessitates continued research into the maintenance and expansion of *Pinus radiata* resources, as well as into forestry in general.

The Woods and Forests Department maintains its own research facilities and in addition combines with the Commonwealth Forest Research Institute in operating a regional branch of the Institute at Mount Gambier. Certain aspects of forestry research are also undertaken by the Soils Division of the Commonwealth Scientific and Industrial Research Organization, the Waite Agricultural Research Institute, the University of Adelaide and the Department of Forestry of the Australian National University.

Research activities aimed at an expansion of forestry production include the development of fertilisers, both to stimulate growth and to bring into production land previously considered unsuitable, and the improvement of planting stock through selective breeding. Preventative research is concerned with the extremely important question of soil deterioration and with combating various diseases and pests. Permanent sample plots are maintained in departmental forests for research into various aspects of forest management.

The Woods and Forests Department provides an advisory service in arboriculture and distributes, through its nurseries at Belair and Berri, a wide variety of trees which are suitable for planting in various climatic and soil conditions.

FOREST PROTECTION

The hot dry summer conditions normal to the State require forest management to take considerable precautions and to maintain constant vigilance against forest fire. The clearing of undergrowth, the maintenance of fire-breaks, the manning of observation towers and the constant readiness of fire fighting units are all an integral part of forestry practice.

Other protective measures include spraying to prevent the disorder known as 'die-back', exposing land before replanting to counteract the bark beetle which is only a problem on felled areas, and the eradication of the various weeds and pests which threaten young plants.

Since the discovery of the *Sirex* wood wasp in Victorian forests in 1961 constant watch has been maintained for any sign of this pest in South Australian pine forests.

FISHERIES

The entire coastline of South Australia except for the unpopulated area west of Fowlers Bay, is fished commercially. In the sheltered waters of the gulfs, Kangaroo Island, the Coorong and the West Coast bays, there are prawn, net and handline fisheries; in the open off-shore waters tuna, lobster, abalone and shark are sought; and inland in the River Murray a small quantity of fresh water fish is caught each year.

ADMINISTRATION

Exploitation of the State's fish resources is controlled by two Acts, the South Australian Fisheries Act, 1971 and the Commonwealth *Fisheries Act* 1952-1970. Under the State Act, which is administered by the Fisheries Department, provision is made for the licensing of fishermen, the registration of boats and gear, and the maintenance and improvement of port and harbour facilities. Control of fishing activity is maintained by licence limitations, the establishment of size limits, closed areas and closed seasons, the regulation of amount and type of gear, and the prohibition of the use of explosives or noxious substances.

The South Australian Fisheries Act, 1971 provides for two classes of fishing licences. A person is granted a class A fishing licence if he satisfies the Director that he intends to carry on the business of fishing for profit as his principal business while a class B fishing licence is granted if the Director is satisfied that he intends to carry on the business of fishing for profit regularly as a seasonal or part-time business. In addition in both cases the licensee has to satisfy the Director that he has the equipment, experience and resources sufficient to enable him to carry on the business of fishing efficiently and profitably.

FISHERMEN AND BOATS

Vessels exceeding 60 feet are engaged primarily in tuna fishing and prawn trawling while the majority of vessels in the 25 feet to 60 feet range are used for rock lobster fishing. Abalone divers generally operate from small aluminium boats between 15 feet and 20 feet in length. The remainder are engaged mainly in handline and net fisheries. Boats and equipment were valued at \$11,255,000 in 1971-72. The numbers of persons and boats engaged in commercial fishing activities are shown in the following table.

Fishing: Persons and Equipment Engaged, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Persons engaged (a)	13,250	11,468	11,476	<i>n.a.</i>	<i>n.a.</i>
Boats engaged:					
Under 20 feet	1,953	1,851	1,171	1,488	} <i>n.a.</i>
20 feet and under 30	481	472	345	388	
30 feet and under 40	126	139	138	153	
40 feet and under 50	84	78	82	81	
50 feet and under 60	27	30	29	31	
60 feet and under 70	7	11	12	10	
70 feet and over	13	10	7	11	
Total	2,691	2,591	1,784	2,162	1,652

(a) Includes full-time and part-time licensed fishermen.

n.a. not available

The decrease in the number of boats registered in 1969-70 followed the introduction of the 'Survey and Equipment of Fishing Vessels Regulations, 1969' requiring the owner of a fishing vessel to have it surveyed at least once every two years. However, in 1970-71 many fishermen who hoped to obtain 'A' or 'B' class fishing licences under the Fisheries Act, 1971 re-registered their boats to show that they owned the necessary equipment as required under the new Act. However, after the new Act came into force fewer boats were registered.

PRODUCTION

Fish

The main commercial fish species, together with their production in recent years, are listed in the following table.

Fish: Production by Species, South Australia
Estimated Live Weight

Species	1967-68	1968-69	1969-70	1970-71	1971-72
Marine:			'000 lb		
Australian salmon.....	2,382	1,755	3,096	2,290	4,146
Bream (black).....	94	131	38	8	32
Garfish.....	809	950	958	572	1,011
Mullet.....	526	506	364	135	504
Mulloway.....	325	167	92	89	89
Ruff.....	524	416	494	177	611
Shark.....	3,266	4,245	4,700	4,649	3,263
Short finned pike (a).....	322	354	348	200	253
Snapper.....	855	793	1,065	784	1,165
Tuna.....	6,560	7,204	3,909	5,422	9,585
Whiting.....	1,809	1,904	2,126	1,838	1,575
Other marine species.....	618	523	760	1,675	402
Total.....	18,092	18,948	17,950	17,839	22,636
Freshwater:					
Golden perch (callop).....	120	172	180	198	49
Murray cod.....	50	33	105	43	42
Bony bream.....	n.a.	564	344	663	799
Tench.....	n.a.	115	109	284	345
Catfish.....	n.a.	47	40	52	50
Other freshwater species.....	n.a.	86	85	129	104
Total.....	(b) 170	1,017	863	1,369	1,390
Total fish production ...	(b) 18,262	19,965	18,813	19,208	24,026

(a) Previously known as snook.

(b) Freshwater species include golden perch and murray cod only.

n.a. not available

Tuna, salmon, shark, whiting, snapper and garfish are the most important marine species.

Tuna are taken in the waters south of Eyre Peninsula and Kangaroo Island. Occasional catches are taken beyond the continental shelf. Although pursuing has been attempted, the only successful technique to date is pole fishing with live bait. The use of spotting aircraft has increased the efficiency of fishing operations. Most tuna are landed at Port Lincoln although occasional landings have been made at Port Adelaide.

Whiting are taken commercially in Spencer and St Vincent Gulfs, Investigator Strait and the West Coast bays. In many areas hand lining continues to provide profitable catches as this fish attracts a high price. In other areas of the gulfs and the West Coast large quantities of whiting and garfish are netted.

Shark fishing extends from the Victorian border in the east to Fowlers Bay in the far west. The main landing ports are the South East crayfish ports, Port Adelaide, Port Lincoln and Victor Harbor. Shark are taken by long line and, more recently, by mesh netting. Following the decline in shark catches in 1972 because of high concentrations of mercury in their tissues, fishermen have been encouraged to fish for scale fish and leatherjackets.

Snapper are taken by handline in the deeper waters of Spencer and St Vincent Gulfs and in the offshore waters of the Great Australian Bight.

Australian salmon provides useful off-season fishing for a number of tuna fishermen with the best catches being taken in Spencer Gulf and around Kangaroo Island. Most of these fish are landed at Port Lincoln for canning. In the South East large quantities of salmon trout are netted for crayfish bait. Of other species mullet and snapper are highly regarded as table fish. Mullet are netted in the River Murray Mouth area and snapper are taken by hand and long line in most areas of the State, and by netting in shallower parts of the gulfs and West Coast bays.

Approximately 210 part-time commercial fishermen using drum nets, gill nets and set lines are engaged in fishing on the River Murray and Lakes area. This is the only commercial source of fresh water fish in the State because of the general lack of permanent streams and lakes. The river has been sectioned into 'reaches' and 'reserves' and each commercial fisherman is issued with a permit to fish a separate reach.

Production in 1960-61 was valued at \$1,610,000 and by 1971-72 had nearly doubled to reach \$3,184,603, the gross values of the major species being:

	\$
Whiting	973,684
Tuna	766,830
Shark	351,453
Garfish	242,727
Snapper	233,072
Australian Salmon	290,245
All other	326,592
	3,184,603

Crustaceans

Southern rock lobster are taken by pots from the shore to the edge of the continental shelf. The south-east coast between Kingston and the Victorian border is the main fishing area. Good catches are also taken from grounds around Kangaroo Island, near the Althorpe Islands and Port Lincoln, and along the west coast. Since 1964-65 the value of southern rock lobster production has exceeded the value of scale fish species.

Rock Lobster Production, South Australia^(a)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Estimated gross weight ('000 lb)	5,264	4,926	4,578	4,920	4,965
Value (\$'000)	3,369	3,448	3,204	4,478	5,362

(a) Previously known as crayfish.

After experimental trawling in 1967 a prawn fishing industry was established in Spencer and St Vincent Gulfs. Further stocks of prawns were later discovered in the waters of the Great Australian Bight near Streaky and Venus Bays. In the 1971-72 season approximately 3,360,000 lb of prawns valued at \$2,285,000 were landed.

Molluscs

Abalone are found in greatest numbers at depths of 40 to 90 feet on the extensive limestone bottom off the shores of western Eyre Peninsula. Smaller numbers are taken in Spencer Gulf, around Kangaroo Island and on the south-east coast. As yet there is no domestic market for this mollusc. Overseas exports of abalone from South Australia during 1971-72 were valued at \$796,250.

All divers must hold a professional fisherman's licence as well as a special abalone permit issued by the Department of Fisheries.

Abalone Production, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Gross (in shell) weight ('000 lb)	4,051	3,519	2,383	2,426	2,515
Value (\$'000)	581	422	405	653	796

Squid and cuttlefish are taken in the general net fisheries and mainly sold for bait, although some are sold for human consumption.

In September 1969 with the encouragement of the Department of Fisheries several private consortiums introduced the Japanese oyster from Tasmania into three South Australian estuaries, Coffin Bay, American River inlet and at Coobowie. The introduction was experimental and designed to discover whether the species may become acclimatised to the South Australian marine environment. Coffin Bay has proved to be an exceptionally good growing area and oyster spat are now imported annually for fattening and sale at the Adelaide market.

MARKETING AND PROCESSING

Marketing and processing arrangements vary according to the species. Tuna are landed at Port Lincoln and then canned for local consumption or frozen for export. Large catches of salmon are generally landed and canned at Port Lincoln, a deep sea port. Southern rock lobster are tailed and frozen for export at most of the main ports, but some are cooked for local consumption. Some prawns are cooked and sold locally but most are frozen and exported. Abalone is

either canned or frozen for export. Shark are gutted and headed at sea and are frozen at the port of landing for interstate markets. Other fish are generally iced for dispatch to the Adelaide market or are scaled, filleted and frozen for general distribution.

All of the main landing ports have chilling or freezing facilities and many have processing plants. Several of these are operated by individual buyers but most are depots of the South Australian Fishermen's Co-operative Limited (SAFCOL). This is the larger of the State's two fishermen's co-operatives, the other being the Yorke Peninsula Fishermen's Co-operative based at Moonta. In addition to collecting, processing and distributing fish from the outports, SAFCOL also operates the Adelaide fish market. This is an auction market which handles fish for both members and non-members.

RESEARCH

The realisation that research is essential for effective fisheries management has promoted several research programmes. Tuna, rock lobster and salmon resources are being investigated by a joint Commonwealth and States group consisting of the Division of Fisheries and Oceanography of the Commonwealth Scientific and Industrial Research Organization, the Fisheries Division of the Commonwealth Department of Primary Industry, and the Fisheries departments of New South Wales, Victoria, Tasmania and South Australia. In addition, the State Fisheries Department is conducting rock lobster, prawn and abalone research programmes. All programmes are directed towards providing a scientific basis for the management of the fisheries concerned.

The decision in 1966 of the Commonwealth and the States to establish a joint Fisheries Research and Development Fund gave impetus to already expanding research programmes. The Fishing Industry Research Account was established under the Commonwealth *Fishing Industry Research Act* 1969 which authorises an appropriation from Commonwealth revenue equal to amounts collected from the fishing industry by the State Fisheries Authorities and expended by the States for the development and management of fisheries.

Conservation

The importance of protecting the marine environment against pollution and other man-caused degradation was recognised by Section 56 of the Fisheries Act, 1971 which enables the Governor to make regulations 'for regulating or prohibiting the discharge, placing or flow into waters of any matter (whether solid, liquid or gaseous) declared by the regulations to be poisonous or injurious to fish or the spawn thereof, and generally for protecting fish and the spawn thereof against destruction or injury by the discharge, placing or flow of any such matter into waters.' The appropriate regulation is contained in Part VI of the Regulations which also lists the noxious substances.

The State Department of Fisheries has pioneered in Australia the concept of marine national parks and has created a number of these parks to protect seal colonies, mangrove communities and areas of scientific and educational interest. Mangrove communities have received particular attention because of their recently recognised contribution to the productivity of the near-shore marine environment. All mangroves in South Australia are fully protected.

9.3 MANUFACTURING

DEVELOPMENT

Early factory production was orientated to local needs: thus brick kilns, flour mills, tanneries, distilleries and a candle and soap works were among factories recorded in the 1840s. Also in operation were the smaller establishments of saddlers and coachbuilders, while various food and clothing industries were being established. Heavy industry can probably be traced to the production of agricultural machinery, beginning with the stripper of 1843 and including the stump-jump plough of 1876.

The discovery of copper in 1843, together with later discoveries, provided an impetus to certain industrial pursuits. However, the finding of gold in Victoria in 1851 led to an exodus of skilled personnel from which the Colony's infant industries were not fully to recover for some two decades.

A highlight in the industrial progress of the State was the establishment at Port Pirie in 1889 of smelters for the processing of silver-lead ore from Broken Hill. This was primarily responsible for building up Port Pirie's population from about 900 at the 1881 Census to some 8,000 twenty years later, making the town at that time the largest country centre in South Australia.

There had been customs tariffs from very early days, but it was not until the 1880s that they reached a level offering protection to secondary industries. Further stimulus was provided in 1901 when the establishment of the Commonwealth provided for free trade between States and the erection of a common tariff barrier. After the 1914-18 War manufacturing industry again expanded with the assistance of still higher tariffs.

In the following table various measures of industrial development have been recorded for the period since 1920.

Factory Development, South Australia

Period	Factories	Persons Employed (a)	Motive Power (b)	Value of Land, Buildings, Plant and Machinery	Value of Production
	No.	No.	'000 hp	\$'000	\$'000
Five-year average:					
1920-21 to 1924-25	1,578	33,382	84	11,415	9,789
1925-26 to 1929-30	1,823	37,617	150	35,816	25,344
1930-31 to 1934-35	1,710	27,409	185	35,206	16,308
1935-36 to 1939-40	2,025	42,337	266	36,680	26,338
1940-41 to 1944-45	2,172	64,778	359	66,218	50,210
1945-46 to 1949-50	2,788	72,302	467	83,876	76,564
1950-51 to 1954-55	3,410	84,490	638	144,164	180,598
1955-56 to 1959-60	4,211	94,045	904	282,584	273,508
1960-61 to 1964-65	5,608	106,262	1,371	512,841	398,608
Year:					
1965-66	6,065	118,343	1,653	699,989	527,477
1966-67	6,222	118,220	1,863	762,310	563,764
1967-68	6,255	121,417	1,886	813,610	631,104
1968-69	(c) 3,085	(c) 113,080	n.a.	n.a.	(c) 643,079
1969-70	3,103	118,416	n.a.	n.a.	714,579

(a) Average employment for whole year; includes working proprietors.

(b) Rated horsepower of engines ordinarily in use. From 1940-41 excludes motors driven by electricity of own generation, to avoid duplication.

(c) Not comparable with previous years, see text.

Despite certain industrial growth, South Australia in the 1930s was still basically a primary producing State; it is over the last thirty-five years that a rapid growth in the relative contribution of secondary industry to total production has taken place. Development in the 1930s coincided with Government action which reduced company taxation and wharfage charges, and provided for a programme of low-cost housing. The needs of war provided a further stimulus to the industrialisation process during the 1940s but it is since the 1939-45 War that the most impressive development has taken place.

Extensive development has occurred particularly in the consumer durable industries (*e.g.* motor vehicles, electrical and household appliances) and these industries now employ a significant proportion of the State's labor force. Major improvements also have been made in the State's fuel supply with the development of the Torrens Island Power Station and the Port Stanvac Oil Refinery, and the introduction of natural gas as a fuel.

MANUFACTURING INDUSTRY STATISTICS

For the year ended June 1969, the Censuses of Manufacturing and Electricity and Gas Establishments were conducted for the first time on an integrated basis with Censuses of Mining, Retail Trade and Selected Services, and Wholesale Trade. The electricity and gas industries, which were previously included in the Annual Factory Census, were the subject of separate censuses in 1968-69. As well as this change in the method of obtaining information on economic activities, different criteria have been used to define factories and this has resulted in a significant fall in the number of establishments. In particular, service establishments such as dry cleaners and motor repair workshops are no longer classified as factories. 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 establishments which are defined as factories.

Thus, manufacturing industry statistics collected at the 1968-69 Census are not comparable with figures obtained from previous factory censuses. The 1969-70 Census was also collected on the new basis. A more detailed explanation of these changes was included on pages 440-4 of the *South Australian Year Book* 1972.

LEGISLATION

Industrial legislation is dealt with in Part 7, Labour. Other legislation is concerned with the location of factory premises and with the processes carried out therein.

Under the Local Government Act, 1934-1972 local government authorities may make by-laws restricting the erection of factory premises to certain sections of the area under their jurisdiction. The Manufacturing Industries Protection Act, 1937 provides for the proclamation of certain areas wherein proprietors and occupiers of factories are protected against civil action for noise and vibration problems. This Act, which takes precedence over zoning by-laws, currently applies to four relatively small zones. Regulations made under the Noxious Trade Act, 1943-1965 have defined certain processes as noxious trades for which a licence must be obtained. In addition an area between Wingfield and Dry Creek in the outer northern suburbs has been declared a noxious trade area with persons operating therein being protected from civil action.

Similarly the licensing of noisy trades may be required under a section of the Local Government Act. Protection against health hazards is provided under the Health Act, 1935-1972.

THE STRUCTURE AND LOCATION OF SECONDARY INDUSTRY

Post-war industrialisation has to a considerable extent evolved around three major industrial groups. The motor vehicle, the electrical goods and the household appliance industries, together with their peripheral suppliers of components and services, have accounted for much of the post-war expansion. These industries are located in, or near Adelaide. In fact the tendency for manufacturing industries, particularly those supplying consumer goods, to congregate near their market has resulted in a heavy concentration of South Australian secondary industries in or near Adelaide.

In the next table some details are given for the Adelaide Statistical Division. The concentration of manufacturing industry in this Division can be seen by comparing the figures with those appearing in the subsequent two tables which summarise manufacturing operations for the whole State.

Manufacturing Establishments: Summary of Operations by Industry Subdivision
Adelaide Statistical Division, 1969-70^(a)

Industry Subdivision	Number of Establishments	Persons Employed	Wages and Salaries	Turnover	Value Added
	Number		\$'000		
Food, beverages and tobacco	229	10,985	33,321	191,870	67,603
Textiles	44	2,560	7,595	38,122	13,449
Clothing and footwear	112	4,158	8,764	25,657	13,284
Wood, wood products and furniture	410	5,439	14,816	65,551	25,576
Paper and paper products, printing	192	5,580	18,148	62,031	34,851
Chemical, petroleum and coal products	76	3,068	11,637	64,942	27,598
Non-metallic mineral products	128	3,520	13,429	59,462	28,532
Basic metal products	60	4,458	16,296	78,744	28,023
Fabricated metal products	390	9,823	31,273	115,515	55,141
Transport equipment	143	23,876	84,828	359,746	142,311
Other machinery and equipment	349	19,848	63,719	220,773	105,347
Miscellaneous manufacturing	216	4,564	14,358	53,632	24,651
Total manufacturing	2,349	97,879	318,184	1,336,044	566,366

(a) A map of the Adelaide Statistical Division is included inside the back cover.

Manufacturing Establishments: Summary of Manufacturing Operations by
Statistical Division, 1969-70

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Turnover	Value Added
	Number		\$'000		
Adelaide	2,349	97,879	318,184	1,336,044	566,366
Central	47	408	1,073	5,795	2,109
Kangaroo Island	4	16	26	168	55
Mount Lofty Ranges	164	3,897	9,175	71,621	23,489
Murray	118	2,414	6,733	52,246	16,038
South East	138	3,541	11,273	67,049	30,419
Eyre	40	597	1,460	7,954	2,478
Northern	111	9,649	37,824	223,301	73,477
Far North	6	15	32	203	148
Total State	2,977	118,416	385,779	1,764,380	714,579

Generally industrial plants outside the Adelaide Statistical Division are orientated to sources of supply, exceptions being the production of agricultural machinery at Mannum and the presence of woollen mills at Lobethal and Mount Gambier. Wallaroo and Port Lincoln, being central to their markets, are the sites of chemical fertiliser production.

The two most important undertakings beyond the vicinity of Adelaide are the iron and steel complex at Whyalla and the lead smelters at Port Pirie. These undertakings together with the power station at Port Augusta are sited for important mineral sources. Other factories are located near sources of primary products and include the sawmills and paper pulp industries of the South East, the fruit processing plants of the Upper Murray, the wineries and distilleries of the Barossa Valley and the Murray, and various dairy produce factories and fish processing plants.

In the following table details of factories for 1969-70 are classified according to industry class. The importance of the metal processing industries, *e.g.* transport equipment, fabricated metal products, machinery and equipment industries, to the State can be readily seen from this table. Thus, transport equipment accounted for 22 per cent of value added whilst fabricated metal products, machinery and equipment etc. accounted for 15 per cent. Employment in these industries was 23 per cent and 17 per cent respectively of the total factory employment. Also of considerable importance to South Australia are the food and drink industries, particularly dairy processing and winemaking.

Manufacturing Establishments: Summary of Operations by Industry Subdivision, South Australia, 1969-70

Industry Subdivision	Number of Establishments	Persons Employed	Wages and Salaries	Turnover	Value Added
	Number		\$'000		
Food, beverages and tobacco	484	16,267	47,894	315,668	104,014
Textiles	49	3,076	8,774	42,220	14,897
Clothing and footwear	115	4,221	8,851	25,937	13,402
Wood, wood products and furniture	515	7,642	21,195	96,805	40,550
Paper and paper products, printing	238	6,837	22,673	90,656	49,426
Chemical, petroleum and coal products	85	3,360	12,599	72,818	29,540
Non-metallic mineral products	184	4,003	14,886	68,262	32,955
Basic metal products	66	9,885	38,577	256,388	79,906
Fabricated metal products	445	10,911	33,176	124,541	58,911
Transport equipment	173	26,840	96,439	388,049	157,176
Other machinery and equipment	392	20,684	65,984	227,546	108,485
Miscellaneous manufacturing	231	4,690	14,733	55,489	25,317
Total manufacturing	2,977	118,416	385,779	1,764,380	714,579

The importance of South Australia relative to manufacturing industry in Australia as a whole can be gauged from the following comparison.

Manufacturing Establishments: Summary of Operations, South Australia and Australia, 1968-69 and 1969-70

Item	Unit	1968-69		1969-70	
		South Australia	Australia	South Australia	Australia
Number of establishments at 30 June	number	2,994	36,890	2,977	37,017
Average employment:					
Male	number	91,011	947,410	94,601	964,218
Female	number	22,069	342,763	23,815	354,319
Wages and salaries	\$'000	347,615	3,908,078	385,779	4,335,009
Turnover	\$'000	1,584,233	18,646,479	1,764,380	20,701,878
Stocks, closing	\$'000	303,159	3,319,648	335,883	3,628,611
Value added	\$'000	643,079	7,473,477	714,579	8,263,674
Fixed capital expenditure	\$'000	75,765	903,006	77,066	1,041,498

Although there were 2,994 establishments operating at 30 June 1969 only 195 or 6.5 per cent had an employment in excess of 100 persons while 1,799 establishments, or 60 per cent of the total, employed less than 10 persons. The thirty largest factories employed 44,610 persons or 39 per cent of the total.

In the following table, factories are grouped according to the number of persons employed.

**Manufacturing Establishments: Selected Variables by Size of Establishment
South Australia, 30 June 1969**

Size of Establishment (average employment)	Number of Establishments	Persons Employed (a)	Turnover	Value Added
				\$'000
Less than 5.....	1,198	2,957	32,028	12,836
5 but less than 10.....	601	4,283	46,520	19,467
10 but less than 20.....	450	6,540	79,983	31,309
20 but less than 50.....	386	12,378	162,949	62,299
50 but less than 100.....	164	11,348	168,341	64,639
100 but less than 200.....	116	16,637	252,278	97,700
200 but less than 500.....	49	15,719	224,688	96,199
500 and over.....	30	44,610	607,935	256,445

(a) Excludes persons employed at administrative offices and other separately located ancillary units, e.g. warehouses and fuel depots.

EMPLOYMENT IN FACTORIES

In 1931-32, at the height of the depression, average factory employment in South Australia was 23,830. By 1938-39 it had passed the previous peak of 41,075 reached in 1926-27 and stood at 43,371. There was a rapid increase in the factory work force in the early war years and a new peak of 72,751 was reached in 1942-43, after which it declined for the remaining war years. Since 1945 the employment level has showed an increase in all but three years to reach the level of 119,844 recorded in 1967-68.

The factory work force in 1967-68 represented 11 per cent of the total population compared with 10 per cent in 1945-46 and 7 per cent in 1938-39. Details of factory employment for each year since 1911 are given in the Statistical Summary on page 626.

Employment trends have shown considerable variation between different industries. Thus, of the increase in employment since 1945, a considerable proportion (approximately 75 per cent) is accounted for by the metal processing industries, e.g. motor vehicle, electrical goods and household appliance industries. Employment in the portland cement industry and the production of other materials associated with the building boom since the 1939-45 War has also increased considerably.

A breakdown of the factory work force by sex and age is given in the following table for five selected post-war years and for 1939. The most noticeable variation in composition is the considerable drop in the relative contribution of persons under twenty-one years to the total force between 1939 and years immediately following 1945.

Factory Employees by Age and Sex, South Australia^(a)

At 30 June	Males			Females			Total Employees
	Under 21 Years	21 Years and Over	Total	Under 21 Years	21 Years and Over	Total	
NUMBER OF EMPLOYEES							
1939.....	7,146	25,672	32,818	4,140	3,657	7,797	40,615
1950.....	5,850	57,909	63,759	4,049	11,357	15,406	79,165
1955.....	6,338	65,532	71,870	3,951	11,573	15,524	87,394
1960.....	7,989	71,567	79,556	4,722	12,935	17,657	97,213
1965.....	10,671	82,621	93,292	6,183	15,065	21,248	114,540
1968.....	10,833	86,576	97,409	5,511	16,924	22,435	119,844
PERCENTAGE OF TOTAL EMPLOYEES							
1939.....	17.6	63.2	80.8	10.2	9.0	19.2	100.0
1950.....	7.4	73.1	80.5	5.1	14.4	19.5	100.0
1955.....	7.2	75.0	82.2	4.5	13.3	17.8	100.0
1960.....	8.2	73.6	81.8	4.9	13.3	18.2	100.0
1965.....	9.3	72.2	81.5	5.4	13.1	18.5	100.0
1968.....	9.0	72.3	81.3	4.6	14.1	18.7	100.0

(a) Excludes working proprietors.

Details of persons employed in manufacturing establishments for 1968-69 and 1969-70 are given in the following tables. In these years, females constituted 19.5 per cent of the total employment, but industries traditionally associated with female employment had a much higher component; textiles, clothing and footwear industries, in particular, employ a large number of females.

A relatively greater number of working proprietors are found in classes which embrace the smaller manufacturing unit. For example, of the 1,851 working proprietors shown for 1969-70, nearly half operated engineering workshops, bakeries, joineries and cabinet-making businesses; others were associated with printing, upholstery, jewellery manufacturing and winemaking.

Manufacturing Establishments: Average Number of Persons Employed during the Year, South Australia, 1968-69 and 1969-70

Industry Subdivision	1968-69			1969-70		
	Males	Females	Total	Males	Females	Total
Food, beverages and tobacco	11,045	4,300	15,345	11,608	4,659	16,267
Textiles	1,685	1,360	3,045	1,684	1,392	3,076
Clothing and footwear	1,069	3,019	4,088	1,100	3,121	4,221
Wood, wood products and furniture.....	6,261	858	7,119	6,663	979	7,642
Paper and paper products, printing	5,110	1,630	6,740	5,087	1,750	6,837
Chemical, petroleum and coal products ..	2,833	571	3,404	2,785	575	3,360
Non-metallic mineral products	3,598	347	3,945	3,645	358	4,003
Basic metal products	8,696	428	9,124	9,284	601	9,885
Fabricated metal products.....	8,304	1,637	9,941	9,165	1,746	10,911
Transport equipment	24,282	1,478	25,760	25,222	1,618	26,840
Other machinery and equipment	15,296	5,061	20,357	15,225	5,459	20,684
Miscellaneous manufacturing	2,832	1,380	4,212	3,133	1,557	4,690
Total manufacturing.....	91,011	22,069	113,080	94,601	23,815	118,416

Manufacturing Establishments: Average Number of Persons Employed by Type of Employment, South Australia, 1968-69 and 1969-70

Industry Subdivision	1968-69			1969-70		
	Working Proprietors	Employees	Total	Working Proprietors	Employees	Total
Food, beverages and tobacco	278	15,067	15,345	268	15,999	16,267
Textiles	22	3,023	3,045	23	3,053	3,076
Clothing and footwear	85	4,003	4,088	86	4,135	4,221
Wood, wood products and furniture ..	445	6,674	7,119	436	7,206	7,642
Paper and paper products, printing ..	160	6,580	6,740	158	6,679	6,837
Chemical, petroleum and coal products	29	3,375	3,404	26	3,334	3,360
Non-metallic mineral products	91	3,854	3,945	85	3,918	4,003
Basic metal products	29	9,095	9,124	30	9,855	9,885
Fabricated metal products	267	9,674	9,941	269	10,642	10,911
Transport equipment	106	25,654	25,760	110	26,730	26,840
Other machinery and equipment	180	20,177	20,357	182	20,502	20,684
Miscellaneous manufacturing	177	4,035	4,212	178	4,512	4,690
Total manufacturing	1,869	111,211	113,080	1,851	116,565	118,416

WAGES, SALARIES AND OTHER COSTS

The following table shows costs associated with the usage of labour and materials by manufacturers. A comparison of salaries and wages paid against other costs will reveal those industries that are relatively labour intensive. For example, wages and salaries constitute nearly half the total cost for firms making clothing or footwear while in the food, beverages and tobacco group, only one-fifth of the total costs are those associated with labour.

Manufacturing Establishments: Wages and Salaries and Other Selected Costs South Australia, 1969-70

Industry Subdivision	Salaries and Wages Paid to			Total Usage of Materials, Electricity and Fuels, Containers, Etc.
	Administrative, Office, Sales and Distribution Employees	Production and All Other Workers	All Employees	
			\$'000	
Food, beverages and tobacco	16,311	31,583	47,894	185,177
Textiles	1,566	7,207	8,774	25,814
Clothing and footwear	1,665	7,186	8,851	10,514
Wood, wood products and furniture ..	4,300	16,895	21,195	43,726
Paper and paper products, printing ..	7,710	14,964	22,673	32,999
Chemical, petroleum and coal products	5,464	7,135	12,599	32,110
Non-metallic mineral products	3,918	10,968	14,886	25,089
Basic metal products	9,583	28,993	38,577	150,441
Fabricated metal products	7,555	25,621	33,176	52,299
Transport equipment	22,270	74,169	96,439	228,687
Other machinery and equipment	17,602	48,383	65,984	106,503
Miscellaneous manufacturing	3,864	10,868	14,733	25,681
Total manufacturing	101,808	283,971	385,779	919,039

SELECTED FACTORY PRODUCTS

The factory products listed in this section are not necessarily the principal products produced in this State. Where publication of details of an individual product would enable the output of a particular manufacturer to be determined, these figures are treated as confidential and are not separately available for publication. As a considerable number of products are produced in this State by industries containing one or two dominant firms, the list of publishable items is considerably restricted and the absence of a product from the list does not necessarily imply its non-production.

Selected Articles Produced: South Australia, 1968-69 and 1969-70

Item	Unit of Quantity	1968-69			1969-70		
		Production	Sales and Transfers		Production	Sales and Transfers	
		Quantity	Quantity	Value	Quantity	Quantity	Value
				\$'000			\$'000
Aerated and carbonated waters	'000 gal	14,262	14,111	10,727	13,587	14,383	10,522
Bacon and ham	'000 lb	8,929	8,751	6,535	9,212	10,903	8,372
Barrels, kegs, vats, drums and tanks	..	..	..	3,424	..	..	4,241
Batteries, wet cell (auto-motive)	number	9,066	9,046	109	8,159	8,159	95
Blinds and awnings:							
Metal venetian	..	..	..	470	..	..	414
Canvas	..	..	..	555	..	..	576
Other	..	..	..	581	..	..	538
Brandy	proof gal	876	1,163	4,293	1,114	1,315	4,756
Bricks, clay	'000	103,933	108,876	5,096	111,343	112,839	5,653
Butter, from cream (excl. that from whey cream)	'000 lb	14,292	14,297	n.a.	17,087	16,630	n.a.
Butter, total value	..	..	..	14,815	..	..	15,899
Cakes, pastry, pies and puddings (not canned)	..	..	..	11,039	..	..	11,829
Cheese, cheddar, green wt.	'000 lb	41,299	40,773	n.a.	38,127	37,786	n.a.
Chickens	'000 lb	11,029	10,258	3,795	13,588	13,562	5,294
Fertilisers, manures (of blood, bone and/or offal)	tons	4,540	4,531	277	5,139	5,135	307
Floorboards, Australian timbers	'000 sup ft	14,591	14,539	2,367	16,869	17,209	2,761
Flour, white	short tons	119,654	119,484	10,200	118,589	120,414	10,496
Fluorescent light fittings	..	..	..	2,293	..	..	3,216
Fruit, crystallised and glace	'000 lb	1,748	1,373	684	1,653	1,528	617
Fruit juice	'000 gal	685	628	931	803	853	1,240
Furniture:							
Sheet metal	..	..	..	2,250	..	..	3,162
Wooden	..	..	..	9,908	..	..	12,523
Gloves, work	doz. pairs	61,205	57,601	600	87,585	83,045	591
Hot water systems, electric	number	8,671	8,392	548	9,481	9,509	644
Ice	tons	15,986	18,996	342	20,476	20,363	358
Ice cream	'000 gal	3,762	3,782	4,266	3,569	n.a.	n.a.
Machinery:							
Conveyors and appliances	..	..	..	3,792	..	..	3,636
Hoists, cranes, lifting machinery	..	..	..	3,204	..	..	3,376
Mining and drilling	..	..	..	3,112	..	..	3,632
Pumping	..	..	..	2,211	..	..	2,824
Mattresses, innerspring	number	61,891	61,846	1,111	69,532	69,551	1,247
Newspapers and periodicals printed	..	..	..	7,762	..	..	5,860
Paints:							
Architectural and decorative;							
Primers and under-coats	'000 gal	135	132	525	147	134	540
Finishing coats	'000 gal	304	310	1,437	347	338	1,538
Industrial;							
Primers and under-coats	'000 gal	323	322	1,143	333	330	1,117
Finishing coats	'000 gal	596	579	2,502	624	616	2,673
Plaster, fibrous	sq yd	254,300	254,374	304	343,953	339,899	337
Ready mixed concrete	cu yd	702,369	873,712	11,060	1,001,911	1,001,911	12,583
Smallgoods	'000 lb	20,614	22,766	8,614	n.a.	n.a.	10,515
Steam, gas and water fittings	..	..	..	2,924	..	..	3,302
Steel, fabricated constructional	tons	39,727	42,652	12,130	43,004	42,968	12,577
Tallow, inedible	'000 lb	23,156	24,564	955	36,178	36,942	1,999
Tarpaulins	..	..	..	308	..	..	373
Tents, flys and marquees	..	..	..	1,160	..	..	945
Window frames, aluminium	..	..	..	4,058	..	..	4,199
Wine:							
Fortified	'000 gal	8,033	8,769	14,731	8,878	9,026	14,626
Unfortified	'000 gal	10,891	9,381	16,656	13,996	12,899	21,758

INDIVIDUAL INDUSTRIES

In this section details are given of major South Australian secondary industries. However, statistics relating to a number of important industries are not published in order to maintain confidentiality of details for individual businesses.

Motor Vehicles

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, no detailed figures are published for confidentiality reasons.

Immediately after the 1939-45 War, General-Motors Holden Pty Ltd prepared for the production of an Australian-built car, and volume production commenced in 1948. The success of this has led to a number of major increases in productive capacity by this firm involving not only considerable expansion at the Woodville site but also the establishment of a plant at Elizabeth.

Tonsley Park has become the centre of manufacturing operations for Chrysler Australia Ltd and in July 1967 the company expanded its operations and opened a large foundry and engine plant at Lonsdale, near Port Stanvac.

These large motor vehicle plants in turn absorb the products of many establishments producing vehicle components. Other manufacturers produce omnibus and commercial vehicle bodies, fork lift trucks, garage equipment, trailers, caravans, and a wide range of vehicle accessories.

Motor Vehicles and Parts, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number		\$'000			
			1968-69			
Adelaide	101	19,131	65,760	186,228	306,408	132,827
Other	5	13	30	99	192	88
Total	106	19,144	65,790	186,327	306,600	132,915
			1969-70			
Adelaide	101	20,605	73,715	215,824	335,018	128,866
Other	5	11	15	58	106	48
Total	106	20,616	73,730	215,882	335,124	128,914

Basic iron and steel

Since the turn of the century most of the iron ore used in the Australian steel industry has come from the Middleback Ranges, inland from Whyalla. In 1941, with the installation of a blast furnace, Whyalla became the major source of Australia's foundry iron. This production ceased in 1965 when a steel mill was opened, with the hot metal being fed directly into the steel works.

There are a number of large pipe and tube making firms located in and near Adelaide. These firms accounted for more than 20 per cent of the Australian output of ferrous pipes, tubes, and fittings. Statistics for these plants are also included in the following table.

Basic Iron and Steel, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number		\$'000			
			1968-69			
Adelaide	34	3,464	12,100	30,708	51,842	20,770
Other	5	3,326	13,107	70,112	85,957	20,104
Total	39	6,790	25,207	100,820	137,799	40,874
			1969-70			
Adelaide	34	3,888	14,258	36,190	58,065	23,688
Other	4	3,593	14,439	72,089	98,043	28,528
Total	38	7,481	28,697	108,279	156,108	52,216

Appliances and electrical machinery

For many years, South Australia has been one of the leading States in the production of the larger household appliances, including refrigerators, washing machines and stoves. These items constitute a significant part of the total activity shown in the next table. Also represented are manufacturers of radios, television sets, waterheating systems, batteries and other electrical machinery.

Appliances and Electrical Equipment, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases Etc.	Turnover	Value Added
	Number		\$'000			
			1968-69			
Adelaide	134	13,558	40,566	81,862	141,667	64,100
Other	8	128	231	446	962	544
Total	142	13,686	40,797	82,308	142,629	64,644
			1969-70			
Adelaide	123	13,997	44,022	90,894	159,507	72,510
Other	8	151	288	434	1,146	730
Total	131	14,148	44,310	91,328	160,653	73,240

Printing and publishing

There are two large establishments producing newspapers in Adelaide. Newspaper printing offices are also located in most large towns, and a number of these produce newspapers for more than one locality. Particulars of general printing establishments, including the activities of the State Government Printing Office, are also incorporated in the following table. The activities of one establishment include the printing and binding of a wide range of books for both Australian and overseas publishers.

Printing and Publishing, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases Etc.	Turnover	Value Added
	Number		\$'000			
			1968-69			
Adelaide	166	4,554	13,546	14,392	40,729	25,841
Other	42	386	981	361	2,544	1,994
Total	208	4,940	14,527	14,953	43,273	27,835
			1969-70			
Adelaide	169	4,566	15,202	16,778	45,416	28,880
Other	42	369	1,029	648	2,643	2,013
Total	211	4,935	16,231	17,426	48,059	30,893

Wine and brandy

Winemaking has been established in this State for a long period. It employs both modern technology and traditional skills and in 1971-72 South Australia accounted for 65 per cent of the total production of Australian wineries and distilleries. Principal production areas are the Barossa Valley, the Upper Murray irrigation areas and the districts south of Adelaide. An extensive review of the South Australian wine industry was included on pages 376-95 of the *South Australian Year Book* 1968.

PRODUCTION

Wine and Brandy, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases Etc.	Turnover	Value Added
Adelaide	24	464	1,306	7,209	9,817	3,700
Other	49	1,335	3,587	23,596	33,327	12,412
Total	73	1,799	4,893	30,805	43,144	16,112
			1969-70			
Adelaide	27	510	1,547	9,747	13,757	5,689
Other	48	1,479	4,040	27,231	37,352	14,297
Total	75	1,989	5,587	36,978	51,109	19,986

PART 10

COMMERCE

10.1 INTERNAL TRADE

Extensive statistics of retail trade have been collected and published over many years. The first full census of wholesale trade, however, was conducted as part of the integrated economic censuses of 1968-69, outlined briefly below. For a detailed description of these censuses, reference should be made to the *South Australian Year Book* 1971 pages 446-57.

ECONOMIC CENSUSES, 1968-69

For the year ended 30 June 1969 the censuses of wholesale trade, and of retail trade and selected services, were conducted for the first time on an integrated basis with censuses of mining, manufacturing and electricity and gas production and distribution. The integration of these economic censuses was designed to increase substantially the usefulness and comparability of the kinds of statistics already being collected and published by the Bureau and to form a basis for the sample surveys which supply current economic statistics from quarter to quarter, particularly those which provide data for the quarterly national income and expenditure estimates.

The integration of these economic censuses meant that for the first time they were being collected on the basis of a common framework of reporting units and data concepts and in accordance with a standard industrial classification. As a result, the statistics for the industries covered by the censuses are now provided with no overlapping or gaps in scope, and in such a way that aggregates for certain important and economic data such as value added, employment, salaries and wages, fixed capital expenditure and stocks can be obtained on a consistent basis for all sectors of the economy covered by the censuses.

The standardisation of census units in the integration of economic censuses means that the basic census unit (the establishment) in general now covers all the operations carried on under the one ownership at a single physical location.

A retail establishment is thus one predominantly engaged in retailing, and a wholesale establishment one predominantly engaged in wholesaling, but the data supplied for them now cover, with a few exceptions, all activities at the location.

Establishment statistics, other than the number of establishments, also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the business (enterprise) which owns and operates the establishment. These units, such as head offices, storage premises, transport depots and motor vehicle repair and maintenance workshops, were formerly excluded from censuses.

Figures in the summary tables shown in this section were obtained from the 1968-69 censuses and may be subject to minor revision as further information is processed.

WHOLESALE TRADE

The term wholesale trade is used in the wholesale census in the broad sense to include the resale (by agents or principals) of new or used goods to retailers or other wholesalers or to institutional (including government), professional or other business users (including farmers and builders). The more important types of business engaged in wholesale trade are wholesale merchants, who take title to the goods they sell; manufacturers sales branches; commission agents, including import and export agents and purchasing agents; petroleum products distributors; and co-operative and marketing boards engaged in marketing farm products.

Each establishment in the integrated censuses is identified in terms of a particular location and all sales, employment etc., are recorded for that location regardless of the size of the sales territory covered, *i.e.* the location of customers. For this reason, all of the sales etc., of the wholesale establishments located in the State of Victoria, for example, are credited to Victoria even though the sales territories may extend over several States.

In the tables which follow, establishments have been classified in accordance with the Australian Standard Industry Classification (ASIC). Each ASIC class is defined in terms of a specified range of economic activities designated as primary to that class and an establishment which is engaged mainly in economic activities designated as primary to a particular class is classified to that class whether or not that establishment is also engaged in other secondary activities.

Wholesale Establishments: South Australia and Australia, 1968-69

Particulars	South Australia	Australia
	Number	
Establishments operating at 30 June 1969	3,159	33,356
Persons employed (a)	32,462	358,811
	\$ million	
Wages and salaries	87.0	1,045.3
Sales on own account, transfers out and other operating revenue	1,226.9	15,899.1
Stocks at 30 June:		
1968	135.8	1,945.5
1969	144.9	2,343.4
Purchases, transfers in and selected expenses	1,006.7	13,524.0
Value added (b)	229.3	2,773.0

(a) At end of June 1969; includes working proprietors. (b) Sales on own account, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

**Wholesale Establishments: Summary of Operations, by Industry Class
South Australia, 1968-69**

Industry Class	Establishments Operating 30 June 1969	Turnover	Stocks at 30 June		Purchases, Transfers in and Selected Expenses	Value Added (a)
			1968	1969		
	No.		\$'000			
General wholesalers	59	32,584	5,674	5,391	27,061	5,240
Wool selling brokers, stock and station agents and farm suppliers	310	67,965	6,596	6,894	50,978	17,286
Wool buyers and farm products wholesalers, n.e.c.	89	70,288	5,238	8,501	64,065	9,486
Petroleum and petroleum products whole- salers	206	173,536	12,923	11,596	128,739	43,470
Iron and steel wholesalers	30	31,809	5,949	7,225	29,056	4,029
Metal scrap wholesalers	18	4,008	433	190	3,519	246
Metals and minerals wholesalers, n.e.c.....	22	10,246	1,146	1,573	9,396	1,276
Chemicals and allied products wholesalers, n.e.c.	57	14,121	2,682	2,947	11,553	2,833
Agricultural and construction machinery dealers	261	60,618	11,622	11,302	47,654	12,644
Tyres and motor vehicle parts wholesalers	107	65,063	9,395	10,848	54,313	12,203
Professional and scientific equipment whole- salers	32	6,568	1,266	1,375	4,872	1,804
Dealers in business machines including computers	40	12,436	2,467	2,319	5,292	6,997
Electrical, electronic equipment wholesalers, n.e.c.	108	40,862	4,781	5,933	34,513	7,501
Industrial machinery and equipment whole- salers, n.e.c.	177	66,277	10,523	11,222	54,637	12,340
Timber wholesalers	54	26,118	3,023	2,922	22,461	3,556
Dealers in builders hardware and materials, n.e.c.	404	84,732	11,637	12,269	66,494	18,870
Household appliances, radio and television wholesalers	54	51,573	6,269	7,378	46,719	5,963
China, glassware and domestic hardware wholesalers	41	5,595	1,104	1,033	4,292	1,232
Furniture and floor coverings wholesalers.	48	6,288	668	699	4,940	1,379
Mens and boys clothing wholesalers	50	4,751	472	473	3,649	1,103
Women and girls and infants clothing wholesalers	79	5,658	694	627	3,995	1,597
Footwear wholesalers	19	3,122	243	280	2,452	706
Textile and textile products wholesalers, n.e.c.	83	28,853	5,265	5,024	23,926	4,686
Meat wholesalers	32	27,276	709	657	24,699	2,525
Poultry, smallgoods and dairy products wholesalers	64	23,371	612	1,144	21,480	2,424
Fruit and vegetable wholesalers	100	29,174	523	461	24,286	4,825
Fish wholesalers	38	17,115	982	821	13,312	3,643
Eggs wholesalers	6	9,596	212	271	8,733	922
Confectionery and soft drinks wholesalers	44	14,922	940	1,032	12,514	2,500
Beer, wine and spirits wholesalers	33	20,313	3,127	3,145	16,335	3,995
Cigarettes, cigars and tobacco wholesalers.	18	32,409	1,357	1,483	30,247	2,289
Groceries and food wholesalers, n.e.c.	113	95,759	6,783	6,693	83,780	11,890
Photographic equipment and supplies whole- salers	17	6,165	628	707	4,229	2,015
Watches, clocks and jewellery wholesalers.	54	5,242	946	1,079	4,057	1,319
Toys and sporting goods wholesalers	37	4,060	744	768	3,149	935
Books, periodicals, paper and paper pro- ducts wholesalers	81	24,982	3,719	4,234	20,282	5,214
Pharmaceutical and toilet preparations wholesalers	96	31,963	3,286	3,289	25,768	6,196
Wholesalers, n.e.c.	78	11,471	1,143	1,120	9,293	2,155
Total wholesale trade	3,159	1,226,889	135,779	144,923	1,006,742	229,291

(a) Sales on own account, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Wholesale Establishments: Employment and Wages and Salaries, by Industry Class South Australia, 1968-69

Industry Class	Establishments Operating 30 June 1969	Persons Employed (a)			Wages and Salaries \$'000
		Males	Females	Persons	
		Number			
General wholesalers	59	799	369	1,168	3,065
Wool selling brokers, stock and station agents and farm suppliers	310	2,690	714	3,404	9,641
Wool buyers and farm products wholesalers n.e.c.	89	604	129	733	1,949
Petroleum and petroleum products wholesalers	206	1,713	305	2,018	6,900
Iron and steel wholesalers	30	376	120	496	1,609
Metal scrap wholesalers	18	87	11	98	267
Metals and minerals wholesalers, n.e.c.	22	157	42	199	541
Chemicals and allied products wholesalers, n.e.c.	57	203	71	274	871
Agricultural and construction machinery dealers	261	1,559	349	1,908	4,847
Tyres and motor vehicle parts wholesalers	107	1,777	543	2,320	5,876
Professional and scientific equipment wholesalers	32	193	94	287	746
Dealers in business machines, including computers	40	635	215	850	2,845
Electrical, electronic equipment wholesalers, n.e.c.	108	833	277	1,110	3,172
Industrial machinery and equipment wholesalers, n.e.c.	177	1,292	450	1,742	5,766
Timber wholesalers	54	480	86	566	1,565
Dealers in builders hardware and materials, n.e.c.	404	2,950	998	3,948	9,537
Household appliances, radio and television wholesalers	54	526	247	773	2,299
China, glassware and domestic hardware wholesalers	41	139	84	223	498
Furniture and floor coverings wholesalers ..	48	166	104	270	629
Mens and boys clothing wholesalers	50	146	70	216	490
Womens and girls and infants clothing wholesalers	79	175	136	311	671
Footwear wholesalers	19	72	34	106	247
Textile and textile products wholesalers, n.e.c.	83	545	265	810	2,091
Meat wholesalers	32	265	40	305	894
Poultry, smallgoods and dairy products wholesalers	64	365	136	501	1,185
Fruit and vegetable wholesalers	100	739	458	1,197	2,437
Fish wholesalers	38	230	221	451	954
Eggs wholesalers	6	55	78	133	310
Confectionery and soft drinks wholesalers ..	44	242	97	339	808
Beer, wine and spirits wholesalers	33	344	139	483	1,308
Cigarettes, cigars and tobacco wholesalers ..	18	247	68	315	1,022
Groceries and food wholesalers, n.e.c.	113	1,137	641	1,778	4,405
Photographic equipment and supplies wholesalers	17	126	75	201	511
Watches, clocks and jewellery wholesalers ..	54	117	73	190	332
Toys and sporting goods wholesalers	37	162	77	239	396
Books, periodicals, paper and paper products wholesalers	81	655	345	1,000	2,639
Pharmaceuticals and toilet preparations wholesalers	96	683	369	1,052	2,621
Wholesalers, n.e.c.	78	309	139	448	1,086
Total wholesale trade	3,159	23,793	8,669	32,462	87,029

(a) At 30 June 1969; includes working proprietors.

Another indication of the volume of wholesale trade in South Australia is given by statistics collected under Commonwealth Sales Tax Acts. However, the statistics do not relate to all wholesale trade and do not necessarily cover a constant portion of such trade because vendors trading in exempt goods only are not required to furnish returns.

Wholesale Sales Recorded Under Sales Tax Acts, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Gross taxable sales:					
At a tax rate of:					
2½ per cent	52,564	56,261	60,572	65,424	65,365
12½ per cent	120,124	16,110	—	—	—
15 per cent	—	116,646	145,890	154,440	150,501
25 per cent	69,657	74,141	90,867	15,780	—
27½ per cent	—	—	—	75,437	93,209
Exempt sales	603,292	675,205	694,597	768,205	750,766
Total sales	845,637	938,364	991,928	1,079,284	1,059,843

RETAIL TRADE

The definition of 'retail trade' adopted in the 1968-69 Retail Census is the same as the definition used in previous retail censuses, *i.e.* the resale of new and used goods to final consumers for personal and household consumption. The basis on which previous censuses of retail establishments were conducted was described on pages 453-6 of the *South Australian Year Book 1972*.

Previous censuses of retail establishments included a number of activities that were also covered by the annual manufacturing census: principally motor vehicle repairs, dry cleaning, shoe repairs and tyre retreading. Takings from these activities were reported in the retail trade census but not included in 'retail sales'. The following activities were also included in previous retail censuses if they were carried on in establishments which had retail sales of more than \$1,000: custom dressmaking and custom tailoring, clothing repair and alterations, making up and repair of blinds, awnings and curtains, repairs of domestic appliances, panel beating and crash repairs, watch and clock repairs, jewellery repairs, and baking of cakes in cake shops. These activities were also covered by the annual manufacturing census.

With the adoption of the new establishment concept in the 1968-69 economic censuses, no establishment was required to supply returns in more than one census and all establishments mainly engaged in the above activities are now included in the retail trade census only.

Censuses of retail trade in Australia have traditionally included certain types of service establishments in their scope, in addition to retail establishments more narrowly defined. Some of the service establishments so included make retail sales in appreciable volume as well as providing important services for which the statistics can be conveniently collected in the framework of the retail census.

The Census of Retail Trade for 1968-69 included the following types of service establishments in its scope in addition to establishments classified to retail trade: motion picture theatres; cafes and restaurants; licensed hotels, motels and wine

saloons; licensed clubs; laundry and dry cleaning services; and hairdressing and beauty salons. Of these service industries, cafes and restaurants, licensed hotels, motels and wine saloons and hairdressing and beauty salons had been included in previous censuses as retail establishments, while the remainder were included in the supplementary collections made from establishments not described as retail establishments.

Some changes in the scope of the retail census have been made for reasons connected with the introduction of a standard industrial classification; for example, bread vending and milk vending by independent vendors mainly engaged in retailing bread or milk by home delivery service are included for the first time.

Because of the changes which have occurred in the definition of census units, the scope of the census and the items of data collected, it is not possible to make direct comparisons between the figures obtained from the 1968-69 Retail Census and those obtained from previous retail censuses or from the monthly and quarterly retail surveys based on previous retail censuses.

Retail Establishments and Sales by Commodity Group, South Australia, 1968-69

Commodity Group	Establishments	Retail Sales of Goods		
		Total	Sales per Establishment	Sales per Head of Population
	No.	\$'000	\$	\$
Groceries	3,412	128,288	37,600	113.4
Fresh meat	1,438	53,008	3,690	46.9
Fresh fruit and vegetables	1,785	22,306	12,500	19.7
Bread, cakes and pastries	2,674	20,794	7,780	18.4
Delivered bread	39	5,799	148,690	5.1
Delivered milk	557	12,592	22,610	11.1
Fresh and/or cooked fish, chips, hamburgers, etc.	903	6,838	7,570	6.0
Confectionery, ice-cream, soft drinks, wrapped lunches ..	4,440	35,636	8,030	31.5
Beer, wine and spirits	968	80,347	83,000	71.0
Cigarettes and other tobacco products	5,966	31,623	5,300	28.0
Furniture, mattresses, blinds, etc. including installation and repairs	463	23,273	50,270	20.6
Floor coverings, carpets, lino, etc., laying of floor coverings	274	12,592	45,960	11.1
Fabrics, piece goods, manchester, blankets, soft furnishings, etc.	930	24,589	26,440	21.7
Clothing, men and boys	951	34,269	36,030	30.3
Clothing, womens, girls and infants	1,236	58,411	47,260	51.6
Footwear, mens and boys	851	7,534	8,850	6.7
Footwear, womens, girls and infants	753	13,017	17,290	11.5
Radio, radiograms, tape recorders, etc.	509	6,245	12,270	5.5
Musical instruments, records, etc.	335	3,867	11,540	3.4
Television sets and accessories	436	5,827	13,360	5.2
Domestic refrigerators and freezers	403	7,631	18,940	6.7
Washing machines, stoves, household heating appliances, etc.	451	12,641	28,030	11.2
Other household appliances	701	10,905	15,560	9.6
Domestic hardware, china, glassware (including garden equipment)	1,655	18,893	11,420	16.7
Petrol, oils and motor lubricants, etc.	2,052	55,762	27,170	49.3
Motor vehicles	435	103,684	238,350	91.6
New parts and accessories for motor vehicles	1,569	16,497	10,510	14.6
Used motor vehicles	605	69,257	114,470	61.2
Used parts and accessories for motor vehicles	268	2,229	8,320	2.0
New and used motor cycles, motor scooters	140	2,054	14,670	1.8
New and used motor tyres, tubes and batteries	1,581	20,649	13,060	18.3
Boats, outboard motors, caravans	106	5,650	53,390	5.0
Cosmetics, perfumes, toilet preparations, etc.	2,155	13,304	6,170	11.8
Patent medicines and therapeutic appliances	1,428	11,625	8,140	10.3
Prescription medicines	542	13,916	25,680	12.3
Photographic equipment and supplies	806	4,242	5,260	3.7
Watches, clocks, jewellery and silverware	713	8,120	11,390	7.2
Sporting goods, bicycles, toys, etc.	1,087	10,373	9,540	9.2
Books, stationery and newspapers	2,098	24,600	11,730	21.7
Antiques, disposal goods, secondhand goods (excluding traded-in goods)	206	2,721	13,210	2.4
Cut flowers, garden seeds, shrubs, etc.	383	2,919	7,620	2.6
Travel goods, brief cases, etc.	349	1,493	4,280	1.3
Bottled liquified petroleum gas	165	1,616	9,790	1.4
Other	712	7,167	10,070	6.3

Retail Establishments: Summary of Operations, by Industry Class
South Australia, 1968-69

Industry Class	No. of Establishments at 30 June 1969	Turnover	Stocks at 30 June		Purchases, Transfers In and Selected Expenses	Value Added (a)
			1968	1969		
			\$'000			
Department stores	15	125,161	16,158	18,285	92,252	35,036
Variety and general stores	281	36,058	6,358	6,525	28,429	7,795
Supermarkets	79	66,355	3,623	4,100	56,683	10,149
Grocers and tobacconists	2,047	111,421	8,021	8,912	93,939	18,373
Butchers	1,000	48,984	585	633	36,843	12,189
Fruit and vegetable stores	465	16,728	234	257	12,959	3,792
Liquor stores	44	2,015	243	288	1,591	469
Confectionery and soft drink shops	701	24,659	971	1,111	19,374	5,424
Fish, chips and hamburger shops	311	6,859	137	177	5,016	1,883
Bread and cake shops	239	7,878	180	220	5,475	2,443
Bread vendors	25	1,873	4	5	1,323	551
Milk vendors	529	12,946	7	10	10,386	2,564
Furniture and floor coverings stores	172	26,770	4,155	4,778	19,672	7,721
Fabric and household textile stores	180	6,772	1,463	1,513	4,918	1,904
Men's and boys' wear stores	227	11,112	2,956	3,173	7,946	3,383
Women's, girls' and infants' wear stores	509	21,035	4,876	4,645	15,086	5,718
Footwear stores	202	10,268	3,206	3,181	7,390	2,852
Shoe repairers	127	982	72	75	376	609
Household appliance stores	292	44,032	6,333	6,720	30,724	13,695
Household electric appliance repairers	90	3,828	340	275	1,500	2,263
China, glassware and domestic hardware stores	158	6,188	1,379	1,415	4,629	1,595
Watchmakers and jewellers	207	7,075	2,331	2,607	4,544	2,807
Musical instrument and record stores	47	2,277	467	591	1,638	763
New motor vehicle dealers and motor vehicle repairers	857	202,441	19,158	20,938	163,323	40,898
Used motor vehicle and parts dealer	238	53,346	5,581	6,799	44,387	10,177
Tyre and battery retailers and tyre retreads	140	22,274	2,824	3,181	16,374	6,257
Service stations	943	64,880	2,662	2,827	51,415	13,630
Smash repair workshops	332	10,168	356	364	4,452	5,724
Motor cycle dealers	39	3,737	785	802	2,689	1,065
Boat and caravan dealers	50	6,019	781	843	4,914	1,167
Pharmacies	559	31,287	4,981	5,433	20,800	10,939
Photographic equipment stores	27	1,458	284	278	935	517
Sporting goods, bicycle and toy stores	189	6,347	1,518	1,742	4,627	1,944
Newsagents, stationers and booksellers	378	17,929	2,352	2,264	13,302	4,539
Antique and secondhand goods dealers	143	3,004	554	629	2,039	1,040
Nurserymen and florists	116	2,819	180	199	1,686	1,151
Retailers, n.e.c.	154	4,456	344	429	2,051	2,490
Total retail establishments	12,112	1,031,441	106,460	116,225	795,687	245,517
Motion picture theatres	106	5,738	52	53	2,321	3,418
Cafes and restaurants	231	10,084	240	259	5,270	4,833
Licensed hotels, motels and wine saloons	640	94,934	3,171	3,322	58,675	36,410
Licensed bowling and golf clubs	15	1,182	27	29	401	783
Licensed clubs, n.e.c.	37	2,960	127	138	1,614	1,357
Laundries and dry cleaners	154	6,570	120	123	1,305	5,268
Men's hairdressing	226	1,330	56	64	415	923
Women's hairdressing and beauty salons	720	6,730	186	224	1,389	5,379
Total selected service establishments	2,129	129,529	3,979	4,212	71,390	58,371
Total retail and selected service establishments	14,241	1,160,970	110,440	120,437	867,077	303,888

(a) Sales and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Retail Establishments: Employment and Wages and Salaries, by Industry Class
South Australia, 1968-69

Industry Class	No. of Establishments at 30 June 1969	Persons Employed (a)			Wages and Salaries \$'000
		Males	Females	Total	
Department stores	15	3,198	6,356	9,554	17,787
Variety and general stores	281	853	1,871	2,724	3,992
Supermarkets	79	1,235	2,129	3,364	5,337
Grocers and tobacconists	2,047	2,703	4,640	7,343	5,494
Butchers	1,000	2,606	550	3,156	5,022
Fruit and vegetable stores	465	634	1,217	1,851	1,349
Liquor stores	44	64	54	118	128
Confectionery and soft drink shops	701	817	2,064	2,881	1,826
Fish, chips and hamburger shops	311	413	557	970	418
Bread and cake shops	239	295	801	1,096	1,154
Bread vendors	25	120	17	137	286
Milk vendors	529	907	338	1,245	205
Furniture and floor coverings stores	172	995	445	1,440	3,107
Fabric and household textile stores	180	170	449	619	764
Men's and boys' wear stores	227	618	357	975	1,370
Women's, girls' and infants' wear stores	509	231	1,626	1,857	2,383
Footwear stores	202	353	576	929	1,142
Shoe repairers	127	183	42	225	206
Household appliance stores	292	1,387	669	2,056	5,193
Household electric appliance repairers	90	465	144	609	1,468
China, glassware and domestic hardware stores	158	235	292	527	665
Watchmakers and jewellers	207	344	324	668	943
Musical instrument and record stores	47	107	90	197	293
New motor vehicle dealers and motor vehicle repairers	857	5,790	1,292	7,082	16,099
Used motor vehicle and parts dealers	238	1,296	219	1,515	3,873
Tyre and battery retailers and tyre retreads	140	1,084	143	1,227	3,168
Service stations	943	3,327	1,156	4,483	5,154
Smash repair workshops	332	1,364	214	1,578	2,958
Motor cycle dealers	39	220	50	270	500
Boat and caravan dealers	50	173	50	223	481
Pharmacies	559	931	1,632	2,563	4,292
Photographic equipment stores	27	65	33	98	156
Sporting goods, bicycle and toy stores	189	334	244	578	631
Newsagents, stationers and booksellers	378	1,029	770	1,799	1,493
Antique and second hand goods dealers	143	220	134	354	359
Nurserymen and florists	116	153	281	434	445
Retailers, n.e.c.	154	324	326	650	965
Total retail establishments	12,112	35,243	32,152	67,395	101,102
Motion picture theatres	106	644	537	1,181	1,368
Cafes and restaurants	231	579	1,334	1,913	2,310
Licensed hotels, motels and wine saloons	640	4,940	4,683	9,623	16,662
Licensed bowling and golf clubs	15	146	42	188	389
Licensed clubs, n.e.c.	37	273	189	462	722
Laundries and dry cleaners	154	495	1,092	1,587	2,964
Men's hairdressing	226	320	42	362	180
Women's hairdressing and beauty salons	720	315	2,244	2,559	2,530
Total selected service establishments	2,129	7,712	10,163	17,875	27,125
Total retail and selected service establishments	14,241	42,955	42,315	85,270	128,227

(a) At 30 June 1969; includes working proprietors and unpaid helpers.

**Retail Establishments and Selected Service Establishments: South Australia
and Australia, 1968-69**

Particulars	South Australia	Australia
	Number	
Establishments operating during 1968-69	14,241	156,191
Persons employed (a)	85,270	923,261
	\$ million	
Wages and salaries	128.2	1,514.6
Sales and other operating revenue	1,161.0	13,831.0
Stocks at 30 June:		
1968	110.4	1,227.6
1969	120.4	1,337.6
Purchases, transfers in and selected expenses	867.1	10,233.1
Value added (b)	303.9	3,707.9

(a) At end of June 1969; includes working proprietors and unpaid helpers

(b) Sales, and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases transfers in and selected expenses.

Surveys of Retail Establishments

During periods between Censuses, estimates of the value of retail sales are calculated from returns received from a sample of retail establishments covering businesses which account for approximately 45 per cent of all retail sales in Australia. The following table shows the value of retail sales of goods in South Australia in broad commodity groups in each of the years 1967-68 to 1971-72.

Value of Retail Sales: Commodity Groups, South Australia^(a)

Commodity Group	Value of Retail Sales of Goods				
	1967-68	1968-69	1969-70	1970-71	1971-72
	\$ million				
Groceries	106.4	115.6	122.1	129.2	142.0
Butchers meat	50.2	52.9	56.2	59.0	64.4
Other food	94.7	97.0	103.7	108.3	116.6
Total food and groceries	251.3	265.5	282.0	296.5	323.0
Beer, wine and spirits	71.7	77.6	84.7	92.0	99.5
Clothing, drapery, etc.	113.2	118.5	124.7	135.0	141.9
Footwear	18.9	20.1	21.6	23.2	24.1
Hardware, china, etc.	16.6	18.5	20.0	23.3	25.2
Electrical goods	42.4	44.8	47.9	52.9	60.1
Furniture and floor coverings ...	31.5	34.8	40.8	43.6	48.3
Chemist goods (b)	36.1	39.2	41.6	44.9	50.5
Other goods (c)	81.9	87.9	99.0	107.4	118.3
Total excluding motor vehicles, etc.	663.6	706.9	762.3	818.8	890.9
Motor vehicles, parts, petrol, etc.	242.0	261.1	285.7	297.6	322.5
Total	905.6	968.0	1,048.0	1,116.4	1,213.4

(a) Builders hardware and supplies, basic building materials, farm and business machines, earthmoving equipment and grain, feed and fertilisers are excluded.

(b) Includes toiletries, cosmetics and dispensing.

(c) Includes tobacco, cigarettes, jewellery, sporting goods, etc.

The value of sales of the food and groceries group as a proportion of total sales has declined each year since 1966-67 when food and groceries represented 28.5 per cent of total sales, to 26.2 per cent in 1971-72. During the same period the percentage of total sales attributable to the motor vehicle group has increased from 25.5 per cent to 27.2 per cent in 1969-70 but decreased to 26.6 per cent in 1970-71 and 1971-72.

10.2 OVERSEAS TRADE

LEGISLATION AFFECTING OVERSEAS TRADE

The power to make laws with respect to trade and commerce with other countries was conferred on the Commonwealth Parliament by the Commonwealth of Australia Constitution Act, Section 51(i). Under Section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1 January 1901. Other references to trade and commerce are contained in Sections 87 to 95 of the Constitution.

The Commonwealth legislation affecting overseas trade includes the Customs Act, the Customs Tariff, and the Customs Tariff (Dumping and Subsidies) Act. The Customs Act is the administrative Act under which the Department of Customs and Excise operates, while the Customs Tariff provides the statutory authority for imposing the actual rates of duty operative from time to time and the Customs Tariff (Dumping and Subsidies) Act provides protection for Australian industry against various forms of unfair trading.

The Customs Tariff

The first Commonwealth Customs Tariff was introduced by Resolution on 8 October 1901 from which date uniform duties for each State came into effect throughout Australia. The tariff has since been extensively amended—the last major amendment was in 1965 when the tariff was re-issued in Brussels Nomenclature form.

The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to particular imports from certain countries of the Commonwealth. Duties are also imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are a major source of revenue, but in its protective character the tariff has an important influence on the Australian economy. Australia has two classes of tariff; the Preferential Tariff, and the General Tariff which applies to goods other than those to which the Preferential Tariff applies.

The Preferential Tariff rates of duty apply to goods which are the produce or manufacture of the United Kingdom, provided that such goods comply with the laws and statutory regulations in force at the time affecting the grant of preference, and that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia. The Preferential Tariff also applies to the Republic of Ireland and, with the exception of a relatively small number of commodities which carry special rates of duty, to Canada, New Zealand (except Cook Islands) and the Territory of Papua and New Guinea. In relation to certain goods, the Preferential Tariff also applies to specified members of the Commonwealth of Nations and most United Kingdom dependencies (dependent territories, protectorates and protected states). In addition the Preferential Tariff applies to selected products from certain 'less developed' countries.

Primage Duties

In addition to the duties imposed by the Customs Tariff, *ad valorem* primage duties at rates of 5 or 10 per cent are charged on some goods according to the type and origin of the goods. Goods, which are the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos Islands, Christmas Island or the Territory of Papua and New Guinea, are exempt from primage duty.

Support Duties

The Customs Tariff provides for the imposition of support duties on certain goods, mainly chemicals, where the landed cost of the goods is less than the support value that has been determined by the Tariff Board. The landed cost of goods consists of the free on board price of the goods, any charges or costs incurred in transporting the goods to Australia, including insurance and any duties of Customs, other than the support duty, payable on the goods. The difference between the support value and the landed cost is known as the Support Value Differential (SVD). Support duty is charged at the rate of 90 per cent of the SVD.

By-laws

Under Customs by-laws, goods may be admitted free of duty or at rates of duty lower than those normally applicable. A prerequisite for by-law admission is that suitably equivalent goods are not reasonably available from Australian production. There are provisions under the by-law system for remitting duty in certain circumstances on imported goods which are to be incorporated in goods for export.

Anti-dumping Legislation

The *Customs Tariff (Dumping and Subsidies) Act* 1961-1965 provides protection for Australian industry against various forms of unfair trading. This Act authorises the imposition of a dumping duty when goods are sold to Australia at a price which is less than the normal value of the goods, or a countervailing duty on subsidised goods, where the dumping or subsidy causes or threatens material injury to an Australian industry. Special duties may be collected also if dumped or subsidised goods are imported to the detriment of the trade of a third country in the Australian market.

Import Controls

A system of import licensing was introduced in 1939 as a war-time measure. In the post-war years these controls were gradually relaxed but were re-imposed in 1952. In 1962 most of these restraints were lifted but some goods remain under control for reasons associated with the protection of certain Australian industries. The Customs (Prohibited Imports) Regulations list those commodities the import of which is prohibited absolutely, or restricted, on social grounds. Other items are prohibited, or restricted, on health grounds (human, animal or plant) by the *Quarantine Act* 1908-1969 and the *Therapeutic Goods Act* 1966.

Export Controls

Under Section 112 of the Customs Act the export of goods from Australia may be prohibited absolutely, prohibited to a specified place, or prohibited unless prescribed conditions or restrictions are observed.

The *Banking Act* 1959-1967 contains provision to ensure that the full proceeds of goods exported from Australia are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia.

ADVISORY AUTHORITIES ON OVERSEAS TRADE

Tariff Board

The *Tariff Board Act* 1921-1972 provides for the appointment of a Tariff Board, consisting of nine members, to advise the Government on matters relating to the protection and encouragement of Australian industry.

The Minister for Secondary Industry is required to refer to the Board for inquiry and report on the necessity for new, increased, or reduced duties; the necessity for granting bounties and the effect of existing bounties; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the tariff, or by the restriction of the import of any goods, by charging unnecessarily high prices or acting in restraint of trade.

In addition, the Minister may refer to the Tariff Board for inquiry and report: the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws on the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and other matters affecting the encouragement of primary and secondary industries in relation to the tariff.

The Minister for Customs and Excise may refer to the Tariff Board for inquiry and report the classification of goods in the Customs Tariff or Excise Tariff and matters in connection with the interpretation of these tariffs; the question of the value for duty of goods; whether goods not prescribed in departmental by-laws should be so prescribed; and any matters in respect of which action may be taken under the *Customs Tariff (Dumping and Subsidies) Act* 1961-1965.

Special Advisory Authority

The Minister for Secondary Industry may also request a Special Advisory Authority to inquire into cases where urgent action appears necessary to protect an Australian industry against import competition pending receipt and consideration of a full report by the Tariff Board. The Special Advisory Authority's report must be submitted to the Minister within thirty days of the making of the request. Temporary protection recommended by a Special Advisory Authority may be imposed only if the matter is under reference to the Tariff Board and may operate only for a period of up to three months after the date of receipt by the Tariff Board of the final report on the goods concerned.

ENCOURAGEMENT OF OVERSEAS TRADE

Trade Commissioner Service

The *Trade Commissioners Act* 1933-1936 provides for the appointment of one or more Trade Commissioners and Assistant Trade Commissioners of the Commonwealth in such places as the Governor-General determines.

In 1957 Australia's official commercial representation was extended by the introduction of a system of Trade Correspondents. These correspondents who are appointed in countries where there is no Trade Commission, are engaged on a part-time basis and operate under the general direction of the Trade Commissioner in whose area they are located.

The Trade Commissioner Service is administered by the Commonwealth Department of Trade and Industry and is responsible for overseas commercial intelligence. Particular facilities offered to Australian exporters and export organisations include market surveys, advice on selling and advertising methods,

arranging introductions with buyers and agents, providing reports on the standing of overseas firms, assisting business visitors and organising trade missions, trade displays and other publicity and promotion media.

Trade Commissioners participate in inter-governmental negotiations on economic and commercial matters and where necessary make representation to Government authorities of the countries in which they are located on behalf of the Australian Government and Australian firms. A Trade Commissioner may also be called upon to act as the Australian Government representative in those countries where there is no Australian diplomatic or consular mission.

In a number of cities where there is a diplomatic or consular mission but no Trade Commissioner, Marketing Officers are appointed to assist Australian businessmen. They work under the direction of the Trade Commissioner for the area.

Export Payments Insurance

The *Export Payments Insurance Corporation Act 1956-1971* established the Corporation with the objective of protecting Australian exporters against risks of loss arising from non-payment of their overseas accounts. The main risks of loss against which the Corporation insures are the 'commercial' risks of the insolvency or protracted default of the buyer, and 'political' risks such as war or cancellation of a valid import licence. In 1965 the scope of the Corporation was widened to include the ability to insure Australian investments in overseas countries against, broadly, three types of 'political' risks: expropriation; inability to transfer currencies; and damage as the result of war or insurrection.

Export Incentives

The Commonwealth Government provides taxation concessions as financial incentives to export. A special income tax allowance for export market development expenditure is designed to encourage firms to incur promotion expenditure in advance of export sales and to assist exporters and potential exporters to expand sales in the existing markets and to enter new overseas markets. Grants are made to employers whose export sales of goods or property rights have increased above their average annual level in a base period.

South Australian Trade Representatives

Early in 1971 the South Australian Premier announced the appointment of two roving trading officers to represent South Australia overseas: one officer services Europe and the other services South-East Asia. In addition, one of the functions of the Agent General for South Australia, located in London, is to foster trade with the United Kingdom and other countries.

Agencies have been opened in four Asian cities—Tokyo, Kuala Lumpur, Singapore and Djakarta—to investigate trade opportunities in these areas.

TRADE AGREEMENTS

Australia has entered into a number of trade agreements with various countries to obtain, in general, preferential rates of duty for a range of Australian commodities in those countries and in turn has contracted to extend preferential treatment to a range of commodities entering Australia from those countries. Some details of these agreements are included in various issues of the *Official Year Book of the Commonwealth of Australia*.

The General Agreement on Tariffs and Trade (GATT), of which Australia is an original member, is an international trade agreement which has been in

operation since 1 January 1948. The objectives of the GATT include the expansion of world trade and the raising of living standards throughout the world. The essential features of the GATT are the schedules of tariff concessions which its members have agreed to apply consequent to tariff negotiations with each other, the application of most-favoured-nation treatment among its members, the avoidance of trade discrimination, and a code of agreed commercial policy rules for fair international trading.

Six series of tariff negotiations have been conducted. As a result of the first five Australia obtained tariff concessions on almost all the principal products of which it is an actual or potential exporter to the individual countries concerned. The sixth series of tariff negotiations, the Kennedy Round, based on a plan for linear tariff cuts on all classes of products, including agricultural and primary products with a minimum of exceptions, and on a reduction of non-tariff barriers to trade, began in May 1964 and concluded in May 1967. Agreement was reached on higher minimum world price for wheat (see International Grains Agreement page 386) and on the gradual reduction in tariff duties on many other commodities.

METHOD OF RECORDING IMPORTS AND EXPORTS

Overseas trade statistics are compiled from documents obtained under the *Customs Act 1901-1971*. Statistics for South Australia apply to the imports into and exports from Australia which are documented (entered or cleared) at Customs recording points in South Australia.

Imports do not provide a record of the overseas goods used or consumed in South Australia, as some of the goods pass subsequently to other Australian States and some goods imported through other States pass into South Australia. Similarly, exports include some products of other States documented in South Australia, but exclude products of South Australia documented in other States. Commodities transported by sea, air or parcels post are included.

Since the introduction of container shipping early in 1969 containerised goods may be documented as South Australian exports or imports even though loaded or unloaded at ports in other States, particularly Melbourne: the interstate movement of the goods is predominantly by rail.

All values in overseas trade statistics are determined on a 'free on board (f.o.b.) port of shipment' basis. This means that all charges, in particular the cost of freight and insurance, incurred after the goods have been exported from the port of shipment are excluded. Only transport and service charges incurred before export are included in the determination of trade values.

The procedure adopted to value exports and imports is as follows:

Exports:

- (a) Goods sold to overseas buyers before export are valued at the Australian f.o.b. port of shipment equivalent of the actual price at which the goods were sold;
- (b) Goods shipped on consignment are valued at the Australian f.o.b. port of shipment equivalent of the price paid for similar goods of Australian origin in the principal markets of the country to which they are despatched for sale.

Imports:

The recorded value of goods imported is the amount on which duty is payable or would be payable if the duty were *ad valorem*. Value for duty is the f.o.b. port of shipment equivalent of either:

- (a) the actual price paid or to be paid by the Australian importer plus any special deduction (transactions value); or
- (b) the 'current domestic value' of the goods, whichever is the higher.

'Current domestic value' is defined as 'the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of export of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country'.

Inclusions and Exclusions

Export tabulations do not include the value of stores loaded on aircraft and ships (e.g. aircraft fuel, bunker oil, food and drink for passengers and crew, and ships' fittings installed on overseas-owned ships in Australian ports). Outside packages (containers, crates) are included as a separate item in imports. For exports, however, the value recorded for each item includes the value of the outside package. Particulars of direct transit trade through Australia are not recorded.

Countries

'Country of origin' appearing in import tables should be taken to mean the country of production. 'Country of consignment' appearing in export tables means the country to which goods were consigned so far as this can be determined at the time of export. Where the country of consignment is not determined at the time of export, goods are shown as exported 'For Orders'.

OVERSEAS TRADE OF SOUTH AUSTRALIA**IMPORTS**

The total value of overseas imports into South Australia during 1971-72, \$189.7 million, was \$8.6 million below the level of 1970-71. Increases in the imports of iron and steel, textile yarn, fabrics and made-up articles and mineral fuels and lubricants were more than offset by a decrease in imports of manufactures of metal, machinery (other than electric) and transport equipment.

The United Kingdom maintained the position it gained in 1970-71 as the most important source of imports, with a value of \$43.3 million in 1971-72, being \$6.5 million less than in 1970-71. For the first time Japan replaced the United States of America as the second major source of imports. The level of imports from Japan in 1971-72 remained at \$28.6 million, the same as in 1970-71, while imports from the United States of America fell from \$34.3 million in 1970-71 to \$27.5 million in 1971-72, making it the third major supplier.

The United Kingdom supplied over half of the total value of imports into South Australia in 1953-54 but now accounts for only 22.8 per cent. On the other hand, Japan increased its proportion from 0.46 per cent in 1953-54 to 15.1 per cent in 1971-72. The United States of America increased its proportion from 8.9 per cent in 1953-54 to 32.7 per cent in 1967-68, but this has steadily declined to 14.5 per cent in 1971-72.

Overseas Imports to South Australia, Principal Commodity Groups

Commodity Group	1967-68	1968-69	1969-70	1970-71	1971-72
			\$'000		
Food and live animals	5,001	5,122	5,261	5,836	6,795
Beverages and tobacco	737	775	710	1,023	1,432
Crude materials, inedible:					
Crude rubber	1,166	1,230	1,411	1,341	1,382
Wood, timber and cork	5,991	6,208	7,389	7,053	6,795
Textile fibres and waste	2,026	941	670	603	748
Crude fertilisers, crude minerals	7,093	6,762	6,681	5,257	5,152
Other	3,397	1,985	2,517	2,167	2,270
Mineral fuels, lubricants	24,438	23,330	21,294	20,956	22,147
Animal and vegetable oils and fats	566	556	488	313	358
Chemicals:					
Chemical elements and com- pounds	2,366	2,413	2,831	3,293	2,725
Plastics and artificial resins ...	2,109	2,542	2,851	2,849	3,385
Other	4,520	4,287	4,096	4,794	5,072
Manufactured goods:					
Paper and paperboard manu- factures	5,022	4,486	4,787	5,223	5,372
Textile yarn, fabrics and made- up articles	9,744	9,470	10,910	9,508	11,082
Non-metallic mineral manu- factures, n.e.s.	4,815	5,172	5,808	6,946	5,865
Iron and steel	5,635	12,436	5,153	6,742	9,142
Non-ferrous metals	1,247	1,305	1,586	1,855	1,433
Manufactures of metal, n.e.s. .	3,576	4,169	3,686	7,908	3,970
Other	3,758	4,110	3,619	4,308	5,130
Machinery and transport equip- ment:					
Machinery, other than electric. .	44,634	49,770	37,728	36,742	28,229
Electrical machinery and appliances	14,697	16,328	15,578	15,604	14,835
Transport equipment	43,427	50,214	34,473	29,507	25,474
Miscellaneous manufactured articles	10,306	10,660	13,233	13,117	15,455
Commodities and transactions not classified to kind	9,347	7,686	8,462	5,413	5,499
Total	215,619	231,956	201,223	198,358	189,748

Overseas Imports to South Australia, Principal Countries

Country of Origin	1967-68	1968-69	1969-70	1970-71	1971-72
			\$'000		
Canada	17,887	21,698	14,818	11,737	10,265
France	3,789	2,002	2,208	2,560	2,150
Germany, Federal Republic of	7,743	8,404	10,047	9,229	10,534
India	2,349	1,910	1,913	1,865	2,481
Italy	3,116	4,082	3,576	3,747	3,698
Japan	15,439	25,945	21,667	28,643	28,612
Malaysia	2,061	1,685	2,749	1,977	1,944
Netherlands	4,861	6,042	5,396	5,707	7,420
New Zealand	2,930	2,749	3,683	3,194	3,502
Pakistan	2,106	2,243	2,807	1,891	392
Saudi Arabia	21,430	21,490	19,032	17,886	17,022
Sweden	2,171	1,915	2,346	2,558	2,047
United Kingdom	37,293	45,973	43,252	49,789	43,330
United States of America	70,521	63,435	43,266	34,348	27,473
Other	21,923	22,383	24,461	23,227	28,880
Total	215,619	231,956	201,223	198,358	189,748

The following table shows, by commodity groups the imports from principal countries during the year 1971-72. In comparison with 1970-71, imports from Japan of iron and steel increased by \$2.6 million to \$6.4 million while imports of manufactures of metal, mainly machine tools, decreased by \$3.5 million to \$0.75 million. Imports of transport equipment, mainly road motor vehicles and parts from the United Kingdom, fell by \$4.1 million to \$8.4 million and similar imports from the United States of America fell by \$1.9 million to \$6.2 million. Imports of machinery, other than electric, from the United States of America, the United Kingdom and Canada decreased by \$4.5 million, \$2.7 million and \$2.4 million respectively.

**Overseas Imports to South Australia from Principal Countries
Commodity Groups, 1971-72**

Commodity Group	Canada	Germany, Federal Republic of	Japan	United Kingdom	U.S.A.	Other	Total
	\$'000						
Food and live animals:							
Fish and fish preparations	102	26	796	600	43	831	2,398
Coffee, tea, cocoa, spices	—	11	139	18	9	864	1,040
Other	37	40	44	537	683	2,016	3,356
Beverages and tobacco	1	46	1	787	2	595	1,432
Crude materials, inedible:							
Crude rubber	65	29	32	93	472	692	1,382
Wood, timber and cork	3,610	12	—	—	944	2,229	6,795
Textile fibres and waste	14	—	103	—	156	476	748
Crude fertilisers and crude minerals ..	1,468	1	121	19	382	3,161	5,152
Other	304	7	5	135	400	1,419	2,270
Mineral fuels, lubricants	3	49	—	224	295	(a)21,577	22,147
Animal and vegetable oils and fats	—	3	6	12	34	303	358
Chemicals:							
Chemical elements and compounds ..	62	386	538	490	794	455	2,725
Plastic materials and artificial resins ..	102	575	338	829	757	785	3,385
Other	73	600	120	1,467	1,846	966	5,072
Manufactured goods:							
Rubber manufactures	3	150	528	1,600	350	647	3,277
Paper, paper board and manufactures ..	1,671	213	457	499	146	2,387	5,372
Textile yarn, fabrics, made-up articles	129	196	2,375	1,452	949	5,980	11,082
Non-metallic mineral manufactures, n.e.s.	14	347	1,296	1,591	508	2,109	5,865
Iron and steel	105	88	6,406	1,047	527	969	9,142
Non-ferrous metals	475	30	8	557	162	202	1,433
Manufactures of metal, n.e.s.	39	317	752	1,329	691	841	3,970
Other	12	38	154	232	14	1,402	1,852
Machinery and transport equipment:							
Machinery, other than electric	581	4,072	2,550	9,426	6,588	5,012	28,229
Electrical machinery and appliances ..	150	1,011	2,746	5,013	1,624	4,291	14,835
Transport equipment	27	1,017	6,642	8,415	6,203	3,171	25,474
Miscellaneous manufactured articles ..	1,075	746	1,790	6,007	2,017	3,821	15,455
Commodities and transactions not classified to kind	145	523	665	953	881	2,332	5,499
Total	10,265	10,534	28,612	43,330	27,473	69,535	189,748

(a) Mainly from Saudi Arabia (\$17,022,013). — nil or less than \$500

EXPORTS

The total value of overseas exports from South Australia during 1971-72 was \$394.1 million, \$0.3 million above the level of 1970-71. Considerable increases in exports of barley (an all-time record of \$35.7 million) and wool, were offset by decreases in exports of wheat, metalliferous ores and metal scrap and non-ferrous metals. In the tables which follow overseas exports from South Australia are given by principal commodities and by principal commodity groups respectively.

Overseas Exports from South Australia, Principal Commodities

Commodity	1967-68	1968-69	1969-70	1970-71	1971-72
	QUANTITY				
Beef, lamb and mutton ('000 lb)	36,902	18,106	57,788	75,396	75,432
Wheat ('000 bushels)	19,373	16,779	41,262	59,399	44,439
Barley ('000 bushels)	1,760	12,842	19,612	23,776	37,400
Fruit; preserved and pulped ('000 lb)	75,538	30,542	28,952	23,933	25,827
Wool:					
Greasy ('000 kg)	72,817	77,117	83,682	80,681	85,421
Other ('000 kg)	6,237	5,019	5,724	5,736	11,740
Ores and Concentrates:					
Iron (tons)	242,067	1,049,015	1,386,840	1,357,422	2,031,357
Copper (tons)	36,467	33,635	23,461	31,053	160,236
Lead (tons)	85,602	81,617	87,667	57,622	47,797
Zinc (tons)	220,636	216,127	282,265	213,892	245,615
Lead and lead alloys, unworked ('000 cwt)	3,062	2,373	3,303	2,696	2,603
	VALUE (\$'000)				
Beef, lamb and mutton	8,543	5,111	14,743	17,013	18,550
Wheat	28,876	24,126	55,944	79,445	61,363
Barley	2,321	11,683	16,133	23,670	35,652
Fruit; preserved and pulped	9,293	3,955	3,609	2,909	3,431
Wool:					
Greasy	68,374	76,511	73,121	55,520	61,111
Other	8,633	8,236	8,675	7,308	7,077
Ores and concentrates:					
Iron	2,105	11,784	16,397	14,629	11,677
Copper	8,573	8,368	7,053	8,226	7,299
Lead	15,871	15,153	15,510	10,241	8,487
Zinc	15,897	15,414	20,239	14,324	16,477
Lead and lead alloys, unworked	31,430	25,839	44,965	32,403	28,718

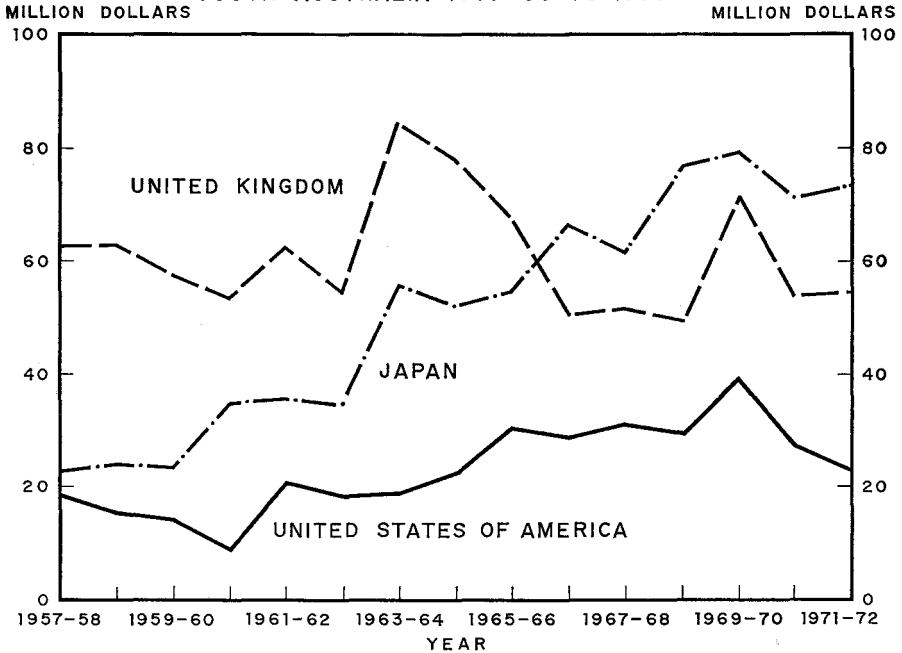
Overseas Exports from South Australia, Principal Commodity Groups

Commodity Group	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Food and live animals:					
Meat and meat preparations	9,223	5,544	16,538	18,746	20,389
Dairy products and eggs	4,396	3,769	6,275	5,642	5,508
Cereal grains and cereal preparations	34,243	39,824	76,551	108,695	102,253
Fruit and vegetables	14,761	8,465	8,498	7,752	9,581
Other	3,198	4,414	7,552	8,008	10,612
Beverages and tobacco	2,784	2,777	2,318	2,539	2,907
Crude materials, inedible (except fuels):					
Hides and skins	6,573	6,435	8,337	6,638	6,461
Textile fibres and their waste	77,045	84,787	81,826	62,863	68,278
Metalliferous ores and metal scrap	50,089	58,184	69,804	57,499	52,112
Other	2,342	3,090	3,592	4,302	4,578
Mineral fuels, lubricants (a)	1,374	465	1,453	1,276	1,257
Animal and vegetable oils and fats	984	888	2,080	2,664	3,545
Chemicals	687	335	588	800	533
Manufactured goods:					
Iron and steel	10,925	14,564	24,819	12,005	10,375
Non-ferrous metals	41,760	39,133	58,357	43,600	39,446
Manufactures of metals, n.e.s.	2,226	2,071	3,691	2,439	4,438
Other	638	2,110	4,535	4,254	4,644
Machinery and transport equipment	16,337	20,824	34,748	38,628	41,291
Miscellaneous manufactured articles	983	1,610	2,307	2,466	4,804
Commodities and transactions not classified to kind	2,200	1,644	3,161	3,010	1,052
Total	282,767	300,934	417,030	393,737	394,064

Exports of manufactured goods are increasing both in absolute terms and as a proportion of total exports but the bulk of exports is still of goods usually classified as primary products. In 1971-72 the 'Food and live animals' group accounted for \$148.3 million, or 37.6 per cent of exports (including wheat \$61.4 million, 15.6 per cent) and the 'Crude materials, inedible' group accounted for \$131.4 million, or 33.3 per cent (including wool \$68.2 million, 17.3 per cent).

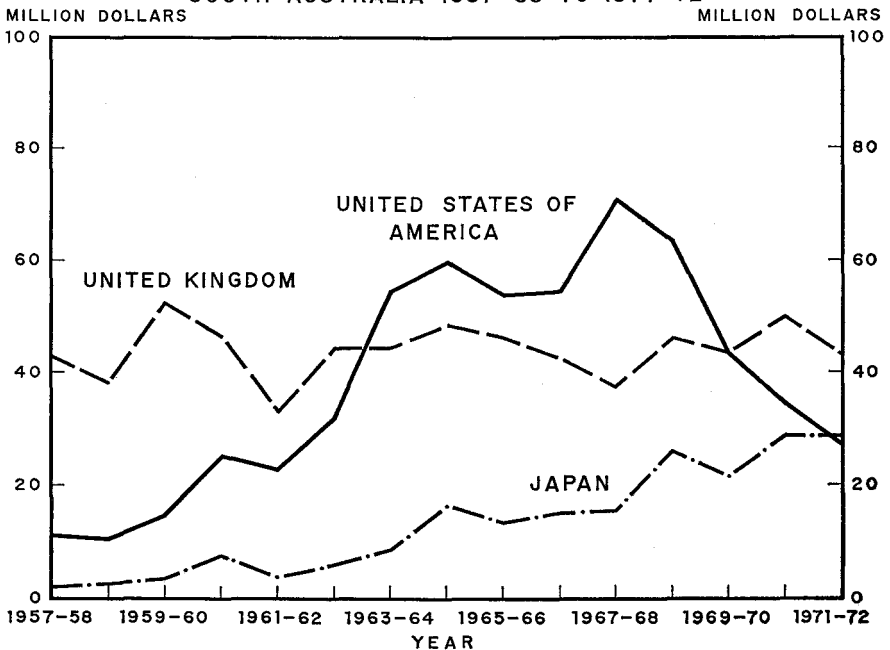
OVERSEAS EXPORTS THREE PRINCIPAL COUNTRIES

SOUTH AUSTRALIA 1957-58 TO 1971-72



OVERSEAS IMPORTS THREE PRINCIPAL COUNTRIES

SOUTH AUSTRALIA 1957-58 TO 1971-72



Exports to principal countries during the year 1971-72 classified by commodity groups are shown below.

**Overseas Exports from South Australia to Principal Countries
Commodity Groups, 1971-72**

Commodity Group	Germany, Federal Republic of	Japan	New Zealand	South Africa	United Kingdom	U.S.A.	Other	Total
	\$'000							
Food and live animals:								
Meat and meat preparations	7	1,683	—	—	3,898	7,218	7,583	20,389
Dairy products and eggs . . .	—	2,847	—	—	790	10	1,861	5,508
Fish and fish preparations . . .	26	1,248	1	392	304	3,345	1,205	6,522
Cereal grains and cereal preparations	5,326	8,507	2,281	6	10,369	—	(a)75,763	102,253
Fruit and vegetables	504	529	1,336	29	2,462	344	4,377	9,581
Other	62	758	22	59	223	52	2,914	4,090
Beverages and tobacco	1	8	229	5	871	78	1,716	2,907
Crude materials, inedible:								
Hides, skins and fur skins . .	195	402	6	26	113	110	5,610	6,461
Textile fibres and their waste	4,796	22,355	64	28	4,808	269	(b)35,958	68,278
Metalliferous ores and metal scrap	1,659	29,148	—	1,401	9,993	3	9,908	52,112
Other	126	751	884	399	124	505	1,790	4,578
Mineral fuels and lubricants . .	—	9	520	—	5	—	723	1,257
Animal and vegetable oils and fats	—	354	9	873	9	46	2,253	3,545
Chemicals	13	55	97	10	48	89	219	533
Manufactured goods classified chiefly by material:								
Iron and steel	—	—	1,438	309	3	—	8,625	10,375
Non-ferrous metal manu- factures	—	2,358	4,982	364	12,580	8,489	10,672	39,446
Other	190	491	445	1,352	953	924	4,728	9,083
Machinery and transport equipment:								
Machinery, other than electric	12	42	556	891	157	265	2,623	4,544
Electrical machinery and appliances	4	35	295	34	1,490	267	1,511	3,636
Transport equipment	3	1,269	14,035	6,588	4,339	117	6,760	33,111
Miscellaneous manufactured articles	104	548	1,148	172	773	845	1,215	4,804
Commodities and transactions not classified to kind	76	64	77	8	204	35	590	1,052
Total	13,102	73,462	28,422	12,948	54,515	23,012	188,604	394,064

(a) Mainly to Arab Republic of Egypt (\$14,213,683); Taiwan (\$10,222,002) and Iraq (\$8,568,791).

(b) Mainly to France (\$7,386,093); U.S.S.R. (\$6,898,405) and Italy (\$3,465,558).

— nil or less than \$500

The following table shows the value of exports to principal countries during each of the years 1967-68 to 1971-72. Japan replaced United Kingdom as South Australia's principal export market in 1966-67 and has retained that position.

In 1971-72 Japan took goods valued at \$73.5 million, 18.6 per cent of total exports, compared with \$71.2 million, (18.1 per cent) in 1970-71. The general downward trend in exports to the United Kingdom which appeared to have resumed in 1970-71 with exports to that country falling by \$17.1 million compared with 1969-70, appears to have been arrested, with an increase in exports of \$0.5 million to \$54.5 million (13.8 per cent) in 1971-72. During 1971-72 New Zealand (\$28.4 million, 7.2 per cent) replaced the United States of America (\$23.0 million, 5.8 per cent) as the third largest market for South Australian goods.

Overseas Exports from South Australia, Principal Countries

Country of Consignment	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Arab Republic of Egypt	515	485	484	12,385	14,500
Belgium-Luxembourg	9,368	6,257	7,443	8,917	6,827
Canada	5,417	3,899	5,122	4,686	7,701
China, People's Republic of	6,242	7,660	35,035	14,056	834
France	10,015	12,060	12,522	10,184	12,892
Germany, Federal Republic of	8,974	10,233	11,584	11,112	13,102
Hong Kong	2,065	2,752	5,762	8,162	7,282
India	12,116	8,846	13,340	9,124	7,699
Iraq	10	117	2,790	15,787	8,629
Italy	7,115	8,040	9,445	4,719	7,086
Japan	61,684	76,785	79,312	71,162	73,462
Netherlands	2,694	4,100	5,261	6,752	5,831
New Zealand	14,268	13,682	23,263	22,272	28,422
South Africa	4,359	8,219	12,604	18,420	12,948
Taiwan	1,175	2,899	5,742	9,708	13,973
United Kingdom	51,450	49,529	71,015	53,955	54,515
United States of America	31,180	29,425	39,253	25,158	23,012
U.S.S.R.	3,443	6,039	9,831	10,722	10,361
Other	50,677	49,907	67,224	76,458	84,988
Total	282,767	300,934	417,030	393,737	394,064

Exports of Wool

In 1960-61 Japan replaced the United Kingdom as the principal market for wool exported from South Australia and in 1971-72, 32.8 per cent of wool exports went to Japan. France, with 10.8 per cent of wool exports, replaced the U.S.S.R. (10.1 per cent) in 1971-72 as the second largest market for wool.

Overseas Exports of Wool from South Australia

Country of Consignment	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Belgium-Luxembourg	3,511	3,970	4,730	3,475	1,973
France	5,329	7,319	6,194	4,807	7,386
Germany, Federal Republic of ..	5,645	5,536	5,759	4,184	4,796
India	1,906	3,797	3,641	2,569	2,342
Italy	4,685	4,154	4,767	3,000	3,463
Japan	23,556	25,075	21,678	19,999	22,344
Poland	2,391	2,293	1,445	732	2,012
United Kingdom	8,031	5,631	6,457	4,101	4,798
U.S.A.	7,284	6,947	3,682	1,043	269
U.S.S.R.	3,442	6,025	9,417	8,324	6,898
Other	11,228	14,000	14,028	10,593	11,908
Total	77,008	84,747	81,797	62,828	68,189

Exports of Wheat

The total amount of wheat exported from South Australia fluctuates considerably from year to year, depending to a large extent on the success of the harvest. From the record level of \$79.4 million in 1970-71 the value of wheat exported in 1971-72 decreased by \$18.0 million to \$61.4 million. This level is still higher than in 1969-70. The relative importance of countries of consignment also fluctuates. Although for several years the People's Republic of China has been the principal market, taking 62.6 per cent of total wheat exports in 1969-70, in 1970-71 it took only 17.7 per cent and in 1971-72, 1.4 per cent. The Arab Republic of Egypt (formerly U.A.R.) which took 23.2 per cent and Iraq, 14.0 per cent, were again prominent buyers of Australian wheat in 1971-72.

Overseas Exports of Wheat from South Australia

Country of Consignment	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Arab Republic of Egypt	—	—	—	12,292	14,214
Ceylon	—	1,229	2,233	2,792	3,464
Chile	—	—	—	1,821	5,986
China, People's Republic of	6,212	7,657	35,027	14,056	—
India	4,698	—	2,684	1,322	—
Iraq	—	—	2,762	15,694	8,569
Malaysia	3,934	1,351	402	172	—
New Zealand	1	2	2	2,252	2,278
Norway	3,041	2,979	—	1,625	—
Pakistan	—	—	1,265	3,166	1,463
Saudi Arabia	3,704	1,798	2,747	2,869	3,275
South Yemen, Republic of	499	1,105	2,630	1,357	792
Yemen	233	637	1,199	2,761	4,516
Other	6,554	7,369	4,993	17,266	16,806
Total	28,876	24,126	55,944	79,445	61,363

— nil or less than \$500

TRADE AT PRINCIPAL PORTS

The following table shows the value of imports and exports at the principal ports during each of the years 1967-68 to 1971-72.

Value of Overseas Trade: Principal Ports, South Australia

Port	1967-68	1968-69	1969-70	1970-71	1971-72
	IMPORTS (\$'000)				
Thevenard	—	—	—	—	—
Port Adelaide (a)	186,543	204,094	175,433	171,192	163,532
Port Augusta	—	—	—	—	—
Port Lincoln	2,432	1,776	1,455	607	1,109
Port Pirie	1,157	418	159	991	1,414
Port Stanvac	23,594	22,162	19,055	19,113	20,037
Walleroo	791	488	827	460	618
Whyalla	1,102	3,018	4,294	5,995	3,039
Total	215,619	231,956	201,223	198,358	189,748
	EXPORTS (\$'000)				
Ardrossan	524	(b)	5,635	10,420	6,332
Thevenard	7,055	4,606	6,758	8,630	10,948
Edithburgh	44	7	75	24	—
Port Adelaide (a)	164,752	173,896	223,142	215,066	232,015
Port Augusta	2,544	(c)	7,444	8,377	1,970
Port Lincoln	12,658	12,274	23,076	29,096	29,012
Port Pirie	77,414	72,612	98,066	76,471	73,299
Port Stanvac	1,192	224	437	383	520
Walleroo	4,161	11,670	14,313	(d) 20,880	(d) 19,970
Whyalla	12,423	25,644	38,085	24,390	19,998
Total	282,767	300,934	417,030	393,737	394,064

(a) Includes 'Parcels Post, Adelaide'; 'Adelaide City (including Adelaide Airport)', Stenhouse Bay and Woomera.

(b) Included with Wallaroo.

(c) Included with Port Pirie.

(d) Includes Port Giles.

— nil or less than \$500

Over 86 per cent of imports are unloaded at Port Adelaide but the proportion of exports loaded there is much lower and in 1971-72 was approximately 59 per cent. Exports from Port Pirie principally comprise pig-lead, concentrates and ores (the produce of Broken Hill) and wheat. Shipments of wheat, and to a lesser extent barley, constitute the major part of exports from Port Lincoln, Wallaroo, Ardrossan and Thevenard, while the principal commodity exported from Port Augusta is copper concentrate from the Northern Territory. Some details of vessels entered and cleared at various South Australian ports are given on pages 523-5.

CUSTOMS AND EXCISE DUTY

Excise duty is levied on specific goods of Australian manufacture, principally for the purpose of raising revenue. Although these excise goods do not form a part of overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. The following table gives details of the value of customs duty and excise duty collected in South Australia during the years 1969-70, 1970-71 and 1971-72.

Customs and Excise: Net Revenue, South Australia

Customs Tariff and Excise Tariff Item	1969-70	1970-71	1971-72
CUSTOMS			
	\$'000		
Live animals; animal products	80	75	61
Vegetable products	66	35	47
Animal and vegetable oils and fats	96	44	52
Prepared foodstuffs; beverages, vinegar; tobacco:			
Spirituos and alcoholic preparations	1,822	1,972	2,356
Tobacco, cigarettes, etc.....	963	984	1,286
Other.....	236	256	255
Automotive spirit and other mineral products.....	1,433	583	360
Chemicals and products thereof	331	362	351
Plastics, resins, rubber and manufactures thereof	1,034	1,200	1,078
Hides, skins, leather and articles thereof	117	118	126
Wood and wicker	1,167	1,111	1,100
Paper-making material; paper and paper manufactures..	434	445	483
Textiles	1,133	1,192	1,441
Footwear, sunshades, whips, artificial flowers, etc.	291	257	250
Earthenware, cement, china, etc.	674	676	558
Pearls, precious stones and metals, imitation jewellery, coin, etc.	38	46	50
Base metals and articles thereof	1,223	1,867	1,037
Electrical and mechanical machines and machinery	4,535	5,124	5,244
Transport equipment and parts thereof	3,785	4,798	4,159
Optical, surgical and scientific instruments, etc.	482	563	529
Arms and ammunition and parts thereof	48	21	9
Miscellaneous manufactured articles	490	435	459
Works of art, antiques, etc.....	1	1	-2
Other customs revenue.....	271	202	361
Primage	259	279	263
Total net customs and primage duties	21,006	22,646	21,913
EXCISE			
Petroleum products	26,947	33,674	41,008
Spirits	4,724	4,536	4,849
Tobacco, cigars and cigarettes	21,114	23,839	27,659
Grape wine for commercial purposes (a)	—	3,092	4,093
Other.....	27,187	28,369	29,699
Total net excise duties	79,972	93,510	107,308
Total net customs, primage and excise revenue	100,978	116,156	129,221

(a) Operative from 19 August 1970.

— nil or less than \$500

10.3 PRICES

MEASUREMENTS OF PRICE MOVEMENTS

The prices of a wide range of commodities and services are recorded at regular intervals by the Commonwealth Statistician for the purpose of compiling various price indexes or for publication of series showing actual price levels.

Price indexes aim to measure the degree of change in price levels, or more specifically the proportionate change in the aggregate price, of specified quantities and qualities of a specified list of items. These indexes measure changes through time and it is traditional for presentation purposes to select a certain year, known as the base year, to equate the average aggregate price (of the list of items) in that year to 100 or some other suitable number, and to adjust other years on a proportionate basis.

When index numbers for different places are compared (e.g. Consumer Price Index, Capital Cities) the only legitimate comparison is the relative change *i.e.* that prices increased or decreased more in one place than another: even when a common base year is used the actual levels of prices, equated to 100 in each case, may differ substantially from place to place; in addition, selected items, qualities or weights (see below) may differ from place to place.

In constructing a price index it is necessary to limit attention to a selected list of items because it would clearly be impossible to determine at regular intervals the price of all items entering into a given field of expenditure (e.g. household expenditure in the case of the Consumer Price Index). The list of items selected must be as representative as possible of the field to be covered and consist of items for which price variations can be ascertained accurately at regular intervals. Each item must be assigned a relative importance (weight) in approximate proportion to actual expenditures on that item within the total field of expenditure being considered. Particular care must be taken to detect, assess, and make allowance for changes in quality of selected items.

Over time it becomes necessary to substitute new grades, qualities or types of articles for those formerly used as indicators of price movements in an effort to keep an index representative of current conditions. These substitutions can normally be achieved without injury to the index. From time to time major changes in the overall pattern of expenditure are noted, and in the past these have prompted the abandonment of an existing index in favour of a different index, the composition and weighting of which were more representative of expenditure at that time.

RETAIL PRICE INDEXES

A brief historical review of early price indexes was included on page 494 of the *South Australian Year Book* 1970. Details of movements in the 'C' Series Index from 1901 to 1959 are shown in the Statistical Summary on page 628.

Consumer Price Index

The Consumer Price Index is a quarterly measure of variations in the retail prices of certain goods and services which make up a high proportion of the expenditure of wage-earner households. Rather than a single index, it consists of a chain of linked indexes each representing a significant variation in composition and/or weighting. The weighting patterns adopted relate to an estimated

aggregate expenditure for all wage-earner households, and not to some estimated expenditure of a single household. In this way it is possible to give representation to certain major expenditures which relate to some households and not others.

The Consumer Price Index was compiled for the first time in 1960, and retrospective calculations have been made dating back to 1948. This involved the linking of six indexes, with significant changes in composition or weighting introduced at the June Quarter 1952, June Quarter 1956, March Quarter 1960, December Quarter 1963 and December Quarter 1968. The principal changes involved were:

- (a) the introduction of private motoring (1952), of television (1960), of furniture (1963), and of services by dentists, doctors, hospitals and health insurance funds (1968),
- (b) alterations in the proportions of houses under various modes of occupancy (1952, 1956, 1963 and 1968), and
- (c) changes in the weights of fuel and fares (1952, 1956, 1963 and 1968) and of private motoring (1956 and 1963).

From the December Quarter 1968 the Index has been recalculated using weights based on the pattern of consumption in the years 1962-63 to 1966-67 with 1966-67 as the base year.

The wide range of commodities and services in the Consumer Price Index are arranged in five 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^(a)

Year	Food	Clothing and Drapery	Housing	Household Supplies	Miscellaneous	All Groups
1962-63	86.6	94.6	86.7	99.2	85.3	89.1
1963-64	88.8	95.5	88.7	97.5	85.8	90.2
1964-65	93.9	96.9	92.1	98.0	90.9	93.9
1965-66	97.1	97.8	95.7	99.2	95.7	97.0
1966-67	100.0	100.0	100.0	100.0	100.0	100.0
1967-68	104.7	102.2	102.1	100.3	102.6	102.9
1968-69	106.4	104.5	104.7	101.1	107.0	105.3
1969-70	107.1	108.1	109.3	102.0	112.0	108.2
1970-71	109.5	112.6	115.9	105.4	118.1	112.5
1971-72	113.6	119.5	124.4	109.2	128.3	119.2

(a) Base year 1966-67 = 100.0

The 'All Groups' index for Adelaide is shown in the following table with that for each of the other capital cities. It is emphasised that these numbers reflect changes in prices within each individual city, but they do *not* measure differences in the level of prices between cities, and the Consumer Price Index should *not* be regarded as a 'cost of living' index.

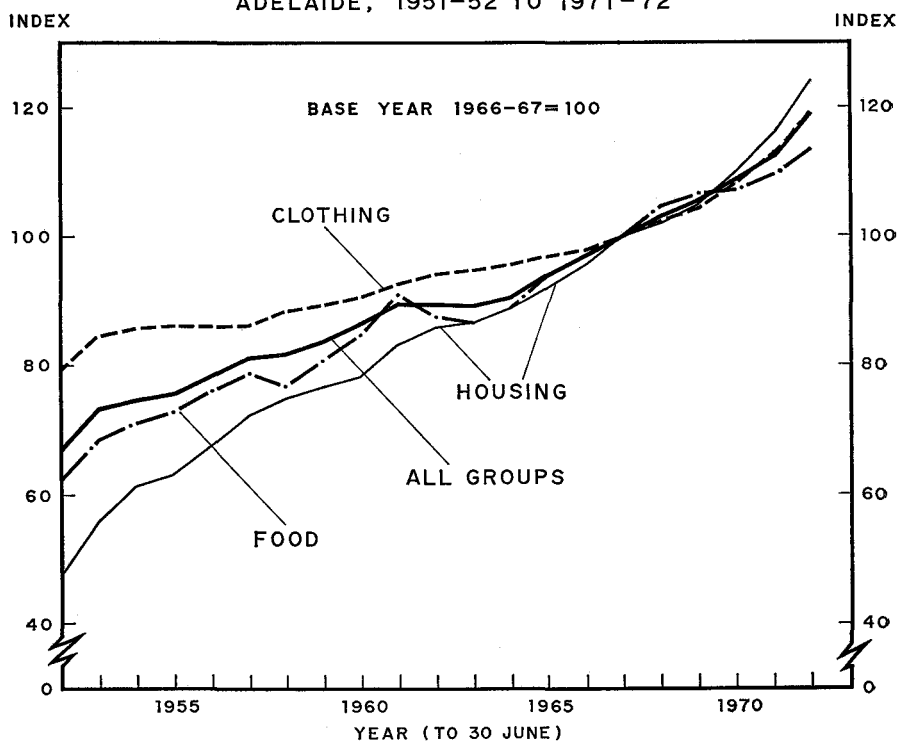
Consumer Price Index, Adelaide and Other Capital Cities^(a)

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Six State Capital Cities	Canberra
1962-63 ..	90.4	89.7	88.7	89.1	88.7	90.7	89.8	91.8
1963-64 ..	91.4	90.4	89.6	90.2	89.8	91.7	90.6	92.5
1964-65 ..	94.5	94.0	93.0	93.9	92.6	94.6	94.0	95.3
1965-66 ..	97.7	97.5	97.5	97.0	96.1	98.0	97.4	98.1
1966-67 ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1967-68 ..	103.2	103.7	103.3	102.9	102.9	104.6	103.3	102.6
1968-69 ..	106.2	106.2	105.5	105.3	105.5	106.1	106.0	104.4
1969-70 ..	110.6	108.7	108.4	108.2	109.4	108.5	109.4	107.4
1970-71 ..	116.8	113.1	114.2	112.5	114.1	112.6	114.6	113.0
1971-72 ..	125.9	119.7	121.6	119.2	120.7	119.3	122.2	119.0

(a) Base year 1966-67 = 100.0

CONSUMER PRICE INDEX

ADELAIDE, 1951-52 TO 1971-72



OTHER PRICE INDEXES

The Commonwealth Statistician prepares and publishes the following indexes on an Australian basis but details are not available for individual States:

- Price of Agricultural Production,
- Price of Dairy, Poultry and Bee Production,
- Price of Pastoral Production,

Farm Production: Prices at Principal Markets, Australia,
Export Price Index,
Wholesale Price Index of Electrical Installation Materials.

In addition the Reserve Bank of Australia maintains an Import Price Index.

For the four 'production' fields listed above, and for imports and exports, both quantum and price indexes are available. Substantially a quantum index is derived by valuing the relevant components at constant prices, *i.e.* at average prices applicable to the base year or period of years.

For some time there has been increasing demand for price indexes relating to materials used and articles produced by important defined areas or sectors of the economy. At December 1972 four of these had been prepared and issued; they are the Price Index of Metallic Materials Used in the Manufacture of Fabricated Metal Products, the Price Index of Copper Materials Used in the Manufacture of Electrical Equipment, the Price Index of Materials Used in House Building and the Price Index of Materials Used in Building other than House Building. The first two have been designed as a replacement for the materials components of the now obsolete Wholesale Price (Basic Materials and Foodstuffs Index) while the latter two together replace the building materials group of that Index.

Price Index of Materials used in House Building

This Index measures changes in prices of selected representative materials used in the construction of houses and is complementary to the Wholesale Price Index of Materials used in Building other than House Building which was introduced in 1969.

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: Composition and
Weighting Pattern, Adelaide
Base year: 1966-67**

Group	Percentage Contribution of Group to All Groups Index
	%
1. Concrete mix, cement and sand	8.13
2. Cement products	6.98
3. Clay bricks, tiles, etc.	14.85
4. Timber, board and joinery	35.52
5. Steel products	6.67
6. Other metal products	7.24
7. Plumbing fixtures, etc.	3.42
8. Electrical installation materials	1.37
9. Installed appliances	4.20
10. Plaster and plaster products	4.19
11. Miscellaneous materials	7.43

In the interests of uniformity and ease of use the reference base of the Index is the year 1966-67 = 100.0, the same as that used for the Wholesale Price Index of Materials used in Building other than House Building. However, because of the later time at which the weighting source data were collected, the weighting base approximates more closely the year 1968-69. Each State capital city has a unique weighting pattern which reflects the difference in the estimated relative importance of given items as between cities. The weighting pattern for each capital city is applied to local price measures in calculating indexes for that city. The weighting pattern used in the Index and applicable to Adelaide is shown in the table on page 485.

The price series used relate to specified standards of each commodity and are obtained from suppliers of materials used in house building. The Index includes fifty items in eleven groups combined in an 'All Groups' index, the selection of materials included being based on local usage. Some items carry the weight of similar items not directly priced and all items are described in terms of fixed specifications with the aim of recording price changes for representative materials of constant quality. Prices are collected at or as near as possible to the mid-point of the month to which the index refers. Figures are published to one decimal place to avoid distortions which would occur in rounding the index numbers to the nearest whole number.

Shown below, for separate groups of items and all groups combined, are the index numbers for Adelaide and the weighted average index numbers for the six State capital cities.

Wholesale Price Index of Materials used in House Building

(Base of each Index: 1966-67 = 100.0)^(a)

Group	Adelaide			Weighted Average Six State Capital Cities		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
Concrete, etc.	108.2	110.0	119.1	107.1	113.4	121.2
Cement products	109.5	120.3	127.9	112.6	121.8	132.0
Clay bricks, tiles, etc.	113.5	121.1	128.6	112.4	118.0	124.5
Timber, board, etc.	116.9	119.9	127.5	113.5	118.5	124.8
Steel products	111.0	116.4	128.9	110.0	115.0	127.9
Other metal products	109.7	111.8	122.3	111.8	112.4	118.5
Plumbing fixtures, etc.	109.6	117.5	127.7	108.7	113.6	122.6
Electrical installation materials	117.3	114.7	118.8	115.8	115.0	120.2
Installed appliances	103.8	105.9	110.2	102.2	103.8	107.4
Plaster and plaster products .	101.2	104.8	115.1	105.1	109.4	116.9
Miscellaneous materials	112.1	113.8	119.6	107.4	111.0	116.4
All Groups	112.4	116.7	124.8	110.9	115.7	122.7

(a) Movements shown by index numbers before July 1970 include movements of imputed price series.

The 'All Groups' index for Adelaide is shown in the following table with that for each of the other State capitals. It is emphasised that these numbers reflect price changes within each individual city and that they do not measure differences in the level of prices between cities.

Wholesale Price Index of Materials used in House Building
All Groups, State Capital Cities
 (Base of each Index: 1966-67 = 100.0)^(a)

Period	Sydney	Mel- bourne	Brisbane	Adelaide	Perth	Hobart	Weighted Average Six State Capital Cities
Year:							
1967-68	103.4	101.3	103.4	102.1	104.0	101.8	102.7
1968-69	109.3	103.6	105.6	107.0	105.9	104.1	106.3
1969-70	115.2	107.2	109.4	112.4	110.3	107.7	110.9
1970-71	119.8	112.3	115.2	116.7	113.9	114.3	115.7
1971-72	126.1	118.9	124.8	124.8	121.1	120.7	122.7

(a) Movements shown by index numbers before July 1970 include movements of imputed price series.

Price Index of 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 selected representative buildings constructed in or about 1966-67. The building types directly represented include high-rise flats (generally those exceeding three storeys), offices, factories, health buildings, education buildings and other commercial premises. The Index includes seventy-two items combined in eleven groups in an 'All Groups' index. The weighting pattern used in the index is shown below. In calculating indexes for each State capital city a single weighting pattern for the whole of Australia is applied to price measures obtained, with a few minor exceptions, in each relevant city.

Price Index of Materials Used in Building Other than House Building

Composition and Weighting Pattern

Base Year: 1966-67

Group	Percentage Contribution of Group to All Groups Index %
1. Concrete mix, cement, sand, etc.	10.41
2. Cement products	3.64
3. Bricks, stone, etc.	5.28
4. Timber, board and joinery	11.90
5. Steel and iron products	30.58
6. Aluminium products	6.01
7. Other metal products	2.59
8. Plumbing fixtures	1.19
9. Miscellaneous materials	7.09
10. Electrical installation materials	8.61
11. Mechanical services components	12.70

The price series used relate to specified standards of each commodity and are obtained in all State capital cities from representative suppliers of materials used in building. Prices are collected at or as near as possible to the mid-point of the month to which the index refers. Items are described in terms of fixed specifications with the aim of recording price changes for representative materials of constant quality. Figures are published to one decimal place to avoid distortions which would occur in rounding the index numbers to the nearest whole number. Shown below, for separate groups of items and all groups combined, are the index numbers for Adelaide and the weighted average index numbers for the six State capital cities.

Wholesale Price Index of Materials Used in Building Other than House Building
(Base of each Index: 1966-67 = 100.0)

Group	Adelaide			Weighted Average Six State Capital Cities (a)		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
Concrete, etc.....	107.9	109.7	119.3	106.9	113.0	120.6
Cement products	112.5	118.8	127.0	111.7	118.0	126.1
Bricks, stone, etc.	113.5	121.3	130.0	112.6	118.6	124.2
Timber, joinery, etc.	108.9	114.8	124.3	111.2	117.0	123.4
Steel and iron products	108.2	112.6	123.5	110.1	115.8	125.4
Aluminium products.....	100.2	107.2	116.0	107.4	113.0	119.3
Other metal products	126.8	122.5	122.5	126.3	121.4	120.6
Plumbing fixtures	112.3	121.4	134.5	113.7	121.3	134.3
Miscellaneous materials	106.9	111.4	118.8	105.8	110.3	116.9
Electrical installation materials.....	112.2	110.9	114.7	112.2	110.9	114.7
Mechanical services components ...	111.7	118.9	127.5	111.8	119.0	127.7
All Groups	109.4	113.9	122.7	110.5	115.5	123.0

(a) See previous table for weighting pattern.

The 'All Groups' index for Adelaide is shown in the following table with that for each of the other State capital cities. It is emphasised that these numbers reflect price changes within each individual city, but they do not measure differences in the level of prices between cities.

Wholesale Price Index of Materials Used in Building Other than House Building
All Groups, State Capital Cities
(Base of each Index: 1966-67 = 100.0)^(a)

Period	Sydney	Mel-bourne	Brisbane	Adelaide	Perth	Hobart	Weighted Average Six State Capital Cities
Year:							
1967-68	102.6	101.7	102.2	101.8	102.0	102.3	102.2
1968-69	106.5	105.0	105.1	105.0	104.7	105.1	105.6
1969-70	111.7	109.8	110.3	109.4	108.9	109.7	110.5
1970-71	116.4	115.1	116.4	113.9	113.3	115.0	115.5
1971-72	122.4	123.9	124.4	122.7	121.3	122.6	123.0

(a) Movements shown by index numbers before July 1968 include movements of imputed price series.

COMMODITY PRICES

Retail Prices of Food

The next two tables show, respectively, the average retail prices of selected food items in Adelaide during recent years and the prices of those items in the various Australian capital cities in December 1972.

Items included are those which are considered identical or sufficiently comparable from place to place to warrant publication of comparative prices: even so, in the second table meat prices are averages for a quarter, not prices at a point of time, because of variations in the quality of meat.

Average Retail Prices of Selected Food Items
Adelaide

Item	Unit	1968	1969	1970	1971	1972
Groceries:		Cents				
Bread (a)	2 lb	17.2	19.0	19.0	20.4	22.3
Self-raising flour	2 lb	16.4	17.2	18.8	16.9	18.1
Tea	$\frac{1}{2}$ lb	30.9	29.5	28.4	30.1	31.9
Rice	1 lb	13.7	13.9	14.2	14.8	15.4
Jam (b)	1 $\frac{1}{2}$ lb	31.4	33.9	34.3	36.1	37.6
Peaches, canned	29oz	28.0	28.6	30.1	30.4	30.6
Potatoes	7 lb	49.9	27.3	38.1	42.7	41.4
Onions, brown	1 lb	11.5	9.0	10.4	12.1	11.6
Dairy products:						
Butter, factory	1 lb	49.9	52.0	52.6	53.6	55.1
Cheese, processed	$\frac{1}{2}$ lb	24.7	24.1	23.5	24.0	27.7
Eggs (c)	doz	62.6	66.6	62.0	60.2	55.8
Bacon, rashers	$\frac{1}{2}$ lb	48.1	45.9	46.2	48.4	50.0
Milk; fresh, bottled (a)	quart	19.0	19.8	20.0	20.7	22.0
Meat:						
Beef:						
Rib (without bone)	1 lb	60.5	58.8	60.6	63.3	64.7
Rump steak	1 lb	101.9	102.0	104.4	109.7	114.0
Sausages	1 lb	26.6	27.5	28.2	28.9	28.8
Corned silverside	1 lb	63.1	63.3	65.6	68.4	70.7
Lamb:						
Leg	1 lb	44.3	45.0	45.0	44.6	47.3
Forequarter	1 lb	26.8	43.1	41.9	39.4	43.3
Loin chops	1 lb	53.2	51.3	51.0	49.5	52.2
Mutton:						
Leg	1 lb	33.2	32.6	31.2	29.9	31.8
Forequarter	1 lb	19.4	26.8	25.8	24.8	25.4
Loin chops	1 lb	33.2	33.0	29.6	28.5	30.4
Pork:						
Leg	1 lb	67.1	65.7	65.3	70.2	70.1
Chops	1 lb	67.4	66.1	65.1	70.6	69.7

(a) Delivered.

(b) Plum jam up to and including 1969, thereafter apricot jam.

(c) 55 gram eggs.

**Average Retail Prices of Selected Food Items, Australian Capital Cities
December 1972**

Item	Unit	Sydney	Mel- bourne	Brisbane	Adelaide	Perth	Hobart	Canberra
Cents								
Groceries:								
Bread (a)	2 lb	24.0	25.0	21.0	23.0	23.0	26.0	25.0
Self-raising flour	2 lb	22.3	23.0	20.1	18.6	20.7	24.7	24.0
Tea	½ lb	32.6	32.9	32.6	31.5	32.2	34.0	33.3
Rice	1 lb	17.5	17.6	17.4	16.9	16.8	17.9	17.9
Jam, apricot	1½ lb	32.9	35.0	37.9	38.8	40.5	39.1	35.2
Peaches, canned	29 oz	32.8	32.6	35.5	30.7	36.1	34.8	34.0
Potatoes	7 lb	51.9	55.6	40.4	53.3	52.4	72.5	56.1
Onions, brown	1 lb	10.5	11.2	7.8	9.9	8.9	11.6	12.3
Dairy Products:								
Butter, factory	1 lb	58.0	55.8	56.1	54.6	55.6	58.0	58.6
Cheese, processed	½ lb	26.2	28.1	30.0	28.3	28.0	29.0	26.8
Eggs	doz (b)	61.0	61.6	57.3	58.1	61.7	70.0	60.8
Bacon, rashers	½ lb	47.5	55.8	50.4	48.8	43.9	50.9	47.9
Milk; fresh, bottled (a)	quart	27.0	21.0	24.0	22.0	24.0	22.0	24.0
Meat (c):								
Beef:								
Rib (d)	1 lb	65.8	71.9	65.8	67.0	61.2	57.3	63.1
Rump steak	1 lb	120.9	123.7	111.2	116.3	124.1	108.5	123.5
Sausages	1 lb	31.0	33.4	36.5	29.3	24.8	32.1	33.7
Corned silverside	1 lb	64.5	74.5	73.4	72.6	70.3	70.1	71.8
Lamb:								
Leg	1 lb	51.7	47.4	62.3	47.8	53.1	55.2	55.9
Forequarter	1 lb	41.0	40.4	59.2	45.2	48.8	45.4	50.3
Loin chops	1 lb	53.4	53.5	65.6	54.3	55.8	55.5	66.3
Mutton:								
Leg	1 lb	36.4	30.2	42.8	33.4	36.6	29.8	40.7
Forequarter	1 lb	31.0	25.4	39.0	25.6	25.2	24.7	32.8
Loin chops	1 lb	33.1	30.4	43.2	32.1	30.8	28.3	37.5
Pork:								
Leg	1 lb	67.9	66.2	72.6	69.4	66.5	69.6	69.2
Chops	1 lb	64.2	66.5	72.9	68.3	67.1	69.9	68.4

(a) Delivered. (b) 55 gram eggs; Darwin 24oz.

(c) Average for quarter ended December 1971. (d) Without bone.

Other Commodity Prices

South Australian prices of agricultural products are shown in the table on page 402, and separate details of wheat, barley, wool, and livestock are given under the appropriate headings in Part 9.1.

PRICE CONTROL

Following the outbreak of the 1939-45 War the Commonwealth Government, acting under the authority of the National Security Act, established price control in Australia. A Commonwealth Prices Commissioner was appointed and given extensive powers in the regulation of prices. The National Security Act expired at the end of 1946 but temporary legislation provided for the continuation of price control until the end of 1948.

During 1948 the Commonwealth Government held a referendum seeking authority for permanent control over prices and rents. However, the proposal was rejected and the States agreed to assume responsibility for price control. In South Australia the necessary administrative structure was established by the Prices Act of 1948. Provision was made for the retention of existing Commonwealth price regulation orders until altered in accordance with the State Act.

Under the provisions of the Prices Act, 1948-1972 the South Australian Prices and Consumer Affairs Branch determines maximum prices for controlled goods and services and investigates complaints concerning excessive prices for goods

and charges for services whether subject to price control or not. Special investigations are carried out on behalf of the Government by the Branch which is responsible also for many aspects of consumer protection which are discussed in more detail on pages 167-71.

Amendments to the Prices Act have provided for the continuation of price control: an amendment in November 1972 covers the period to 31 December 1973.

RENT CONTROL

Extensive rent control was introduced in South Australia at the beginning of the 1939-45 War, with the passing by the State Government of the Increase in Rent (War Restrictions) Act which pegged rents at the level prevailing at 1 September 1939. In 1942 this Act was replaced by the Landlord and Tenant (Control of Rents) Act. Although providing the same benchmark, this Act allowed the South Australian Housing Trust to determine a variation in rent, upon application by either the landlord or tenant, or in certain cases on its own initiative. An appeal against such a determination could be made to a Local Court. From the beginning of 1943 to the end of 1962, 60,180 applications for rent determinations were dealt with by the Trust, of which twenty-nine were varied by a Local Court.

Following an inquiry held in 1951 on the future of rent control, proportionate loadings were introduced to allow for increases in property costs since 1939. The gradual relaxation of rent control was achieved through periodic extensions of these loadings and through the exclusion of long-term leases from the provisions of the Act.

At the end of 1962 the Landlord and Tenant (Control of Rents) Act was replaced by the Excessive Rents Act, which currently provides that the tenant of any premises, except where a lease for a term in excess of three years exists, may apply to a Local Court to determine whether the rent is excessive.

Sub-Standard Housing

To regulate the rents for sub-standard housing the Housing Improvement Act, 1940-1971 vests in the South Australian Housing Trust power to declare a house sub-standard, and fix a maximum rent on it for such time as the declaration remains in force.

Before formally declaring a property to be sub-standard, the Trust first notifies the owner of its intention. Upon notification of the Trust's intention the owner is given a period of at least two months during which time improvements may be made to the property. If, at the expiration of the time period, it is subsequently found that the property has not been satisfactorily improved, then it is customary for the Trust to control the rent appropriate to the standard of accommodation provided.

PART 11

TRANSPORT AND COMMUNICATION

11.1 TRANSPORT

A network of sea, rail, road, and air services has been established between South Australia and the other States of Australia. Transport between the eastern States and Western Australia, and to a lesser extent Northern Territory, is made *via* South Australian services. Distances between Adelaide and other Australian capital cities, and Darwin, are shown in the following table.

Distances Between Adelaide and Other Capital Cities

Method of Travel	Canberra	Sydney	Melbourne	Brisbane	Perth	Hobart	Darwin
				Miles			
Road (a) .	753	890	464	1,518	1,704	..	1,984
Rail	1,006	1,028	483	1,641	1,649	..	..
Sea (b)....	..	965	515	1,480	(c)1,378	772	(d)3,180
Air	614	743	410	1,222	1,377	797	1,719

(a) In some cases shorter but less popular routes are available.

(b) Distance in nautical miles. (c) Fremantle. (d) *Via* Fremantle.

TRANSPORT CO-ORDINATION

TRANSPORT CONTROL BOARD

The Transport Control Board, constituted under the Road and Railway Transport Act, 1930-1971, is mainly concerned with the rationalisation of passenger transport services and in particular the co-ordination of road and railway passenger services.

Subject to the approval of the Parliamentary Standing Committee on Public Works the Board may order the closing of a railway line provided that alternative

transport will be available. The Board has power to declare roads outside a radius of 10 miles from the General Post Office, Adelaide to be controlled routes. A licence must be obtained from the Board before a vehicle can carry passengers for hire on a controlled route and the Board is obliged to grant sufficient licences to ensure an adequate passenger motor service on every controlled route which is within 50 miles of the GPO and which is at any point more than 3 miles from a railway line.

Licences issued by the Board specify the route or routes over which the licensee is permitted to operate vehicles; licences have a currency of five years but many special permits are issued for periods up to twelve months.

At 30 June 1972 current licences totalled 64. Special annual permits included 95 charter coach, 183 hire car and 113 miscellaneous passenger permits while special permits for short periods issued during the year covered 5,331 passenger vehicles. The Board also registers persons and firms who book passengers on behalf of a licensee; at 30 June 1972, there were 95 such agents.

RAILWAYS

In Part 8.4, railways in South Australia were discussed under the headings of ownership and control, and standardisation of railway gauges. It was mentioned that both the State and Commonwealth Governments operate railways in this State and that there are two privately-owned railways, from Iron Knob and Iron Baron to Whyalla, and from Coffin Bay to Port Lincoln; this section deals with the operation of the South Australian Railways as a means of transport within and to and from the State. In the *Official Year Book of the Commonwealth of Australia* the operations of the Commonwealth Railways in South Australia are included in figures for all Commonwealth Railways in Australia. Details are not available on the operations of the private railways.

SOUTH AUSTRALIAN RAILWAYS

FINANCIAL SUMMARY

Capital indebtedness (see definition on page 565) of the South Australian Railways at 30 June 1972 totalled \$157,474,000. Operations for 1971-72 resulted in a deficit of \$19,477,000 and after taking into account contributions from Consolidated Revenue totalling \$19,500,000, there was a surplus of \$23,000. The following summary shows details of capital indebtedness, working expenses, and revenue for the five years to 1971-72.

South Australian Railways: Capital Indebtedness, Working Expenses and Revenue

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Capital indebtedness.....	137,022	142,643	151,156	152,750	157,474
Working expenses	34,818	36,393	39,293	43,002	46,801
Revenue	28,244	30,522	33,566	34,635	35,603
Deficit on operating ...	6,574	5,871	5,721	8,367	11,197
Debt charges	6,160	6,446	7,053	7,757	8,280
Total deficit for year....	12,734	12,317	12,774	16,124	19,477
Less contributions from Consolidated Revenue	10,000	11,000	14,674	14,500	19,500
Net surplus (+) or deficit (-) ..	-2,734	-1,317	+1,900	-1,624	+23

Working Expenses

The cost of operating the South Australian Railways during 1971-72 was \$46,801,000 plus debt charges which amounted to \$8,280,000. The working expenses include the cost of administration, maintenance of permanent way, rollingstock maintenance and operation costs, salaries and wages of station staff, guards and conductors. A comparison of working expenses for the last five years is given in the following table.

South Australian Railways, Working Expenses

Expenses	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Administration:					
Salaries, wages, expenses, etc...	1,137	1,194	1,298	1,495	1,668
Pay roll tax	525	563	598	673	93
Superannuation Act—pensions.	1,239	1,311	1,292	1,408	1,596
Way and works:					
Maintenance and superintendence of permanent way, etc.	7,736	8,149	9,387	9,637	11,181
Rollingstock:					
General superintendence	254	265	299	326	360
Maintenance of rollingstock ..	5,917	6,227	6,298	6,796	7,309
Motive power, lubrication, etc..	4,803	4,918	5,352	5,815	6,249
Transportation and traffic:					
General superintendence, station staff, guards, etc.	9,591	10,027	10,790	12,334	13,483
Miscellaneous:					
Refreshment services, road motors, etc.	1,301	1,319	1,365	1,599	1,760
Stores:					
Salaries, wages, expenses	679	711	746	854	903
Depreciation (a)	1,635	1,708	1,867	2,063	2,200
Total	34,818	36,393	39,293	43,002	46,801

(a) Additional depreciation is included in 'Maintenance of rollingstock' and other accounts to cover depreciation of workshop machinery. The amount for 1971-72 was \$122,700.

The average number of persons employed in operations and maintenance during 1971-72 was 7,933. In addition an average of 910 persons were employed on special work including standardisation programmes.

Debt Charges

These charges to the South Australian Railways have increased over the five-year period 1967-68 to 1971-72 because of additional loan funds made available for capital purposes, further advances provided under Railways Standardisation and Railway Equipment Agreements, and higher interest rates. Net funds provided from State Loan Fund were \$140,237,000 at 30 June 1972 as against \$126,488,000 at 30 June 1968.

The net amount on which the State was liable for interest and repayment under the Railways Standardisation Agreement at 30 June 1972 was \$16,161,000 compared with \$9,823,000 at 30 June 1968. The total expenditure on standardisation to 30 June 1972 was \$63,458,000, of which \$61,557,000 was provided by the Commonwealth (30 per cent repayable by the State), and \$1,901,000 was contributed from the Consolidated Revenue of the State.



The News

A nursing graduation ceremony in Bonython Hall, University of Adelaide. This building, opened in 1936, is the venue for the University's commemoration ceremonies.



The Sunday Mail

Opening night of the new \$6.6m Adelaide Festival Theatre which was opened by the Prime Minister of Australia, the Hon. E. G. Whitlam, on 2 June 1973.



The Sunday Mail

The interior of the Adelaide Festival Theatre. The three levels of seating have a total capacity of 2,000.

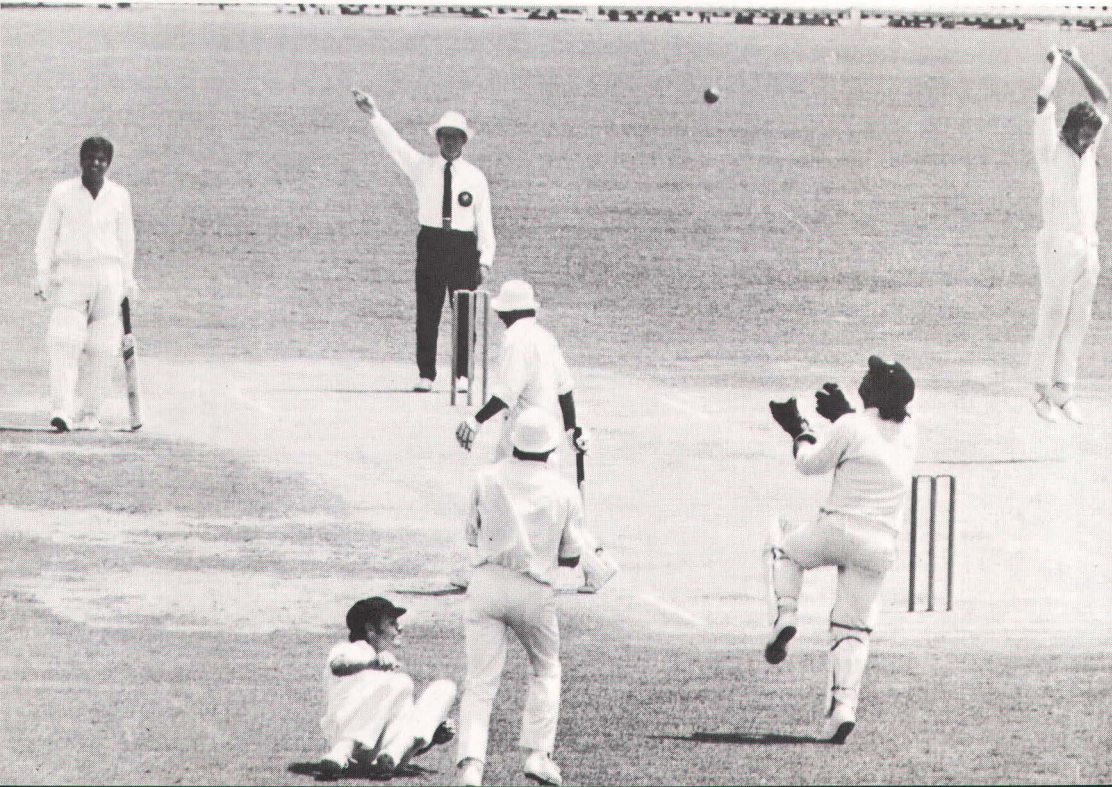


The Sunday Mail

A view of the new Modbury Hospital with the Mount Lofty Ranges at Tea Tree Gully in the background. These buildings containing 230 beds are the first stage of the Hospital complex which, when completed, will provide 450 beds.

The First Cricket Test between Pakistan and Australia was played at Adelaide Oval in December 1972. The illustration shows the dismissal of Sadiq Mohammad caught G. Chappell bowled R. Massie. The others are batsman Majid Khan, umpire M. O'Connell, slip-fieldsman I. Chappell (Capt.) and wicket-keeper R. Marsh.

The News



Outstanding liability of the State to the Commonwealth under the Railway Equipment Agreement at 30 June 1972 amounted to \$648,000.

Debt charges for 1971-72 were:	\$
Interest on Loan Funds provided for capital purposes (other than stores) including exchange on overseas debt	7,046,424
Interest on Loan Funds invested in stores	266,278
Interest under Railways Standardisation and Railway Equipment Agreements	943,446
Interest on Railways of Australia rollingstock	24,007
	8,280,155

Sources of Revenue

For the five year period ending 30 June 1972 approximately 77 per cent of railways operational revenue was derived from carriage of freight and about 12 per cent from passenger traffic. Sources of revenue and the amounts received for the years 1967-68 to 1971-72 are shown in the table below.

South Australian Railways, Sources of Revenue

Source	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Country passengers	1,758	1,625	1,688	1,837	1,944
Suburban passengers	1,912	1,968	2,002	2,055	2,152
Parcels, mails, etc.	984	977	920	912	815
General merchandise and miscellaneous freight	11,023	12,212	12,931	13,691	13,599
Wool	149	155	172	138	134
Wheat	1,623	2,415	3,817	4,134	3,365
Barley and other grains	467	795	1,025	909	1,963
Livestock	708	834	1,122	1,016	951
Minerals	7,097	7,102	7,372	7,221	7,537
Rents and miscellaneous	1,452	1,384	1,395	1,467	1,765
Refreshment services and book-stalls	1,072	1,055	1,122	1,255	1,378
Total	28,244	30,522	33,566	34,635	35,603

Revenue from road motor services, amounting to \$217,172 in 1971-72, is included in the above table with revenue from passengers, parcels, mails, etc. and miscellaneous freight.

RAILWAY OPERATIONS

Train Mileage and Track Open

The average length of track open for traffic during 1971-72 was 2,413 miles. The last lines closed were the Eudunda-Morgan (35 miles) and the Sandergrove-Milang (8 miles) in 1969-70, and the Wanbi-Yinkanie (31 miles) in 1970-71, while the last line opened was a 2-mile spur line to Tonsley Park in 1966-67. Train miles run during 1971-72 totalled 6,225,423.

The following table shows revenue and working expenses for the five years to 1971-72.

South Australian Railways, Revenue and Working Expenses

Year	Revenue	Working Expenses	Percentage of Working Expenses to Revenue	Train Mileage	Revenue per Train Mile	Working Expenses per Train Mile
	\$'000	\$'000	Per cent	'000 miles	\$	\$
1967-68	28,244	34,818	123	6,418	4.40	5.43
1968-69	30,522	36,393	119	6,176	4.94	5.89
1969-70	33,566	39,287	117	6,192	5.42	6.34
1970-71	34,635	43,002	124	6,344	5.46	6.78
1971-72	35,603	46,800	131	6,225	5.72	7.52

Train mileage was 6.8 million in 1942-43 but fell to about 6 million in 1946-47 and 1948-49. By 1952-53 train mileage had risen to 7.2 million but in recent years it has been at a lower level. In general both revenue and working expenses per train mile have increased in recent years with working expenses per train mile showing the more rapid increase.

Locomotives and Rollingstock

Significant steps in the development of traction in the South Australian Railways have been the introduction, particularly in the early 1920s, of more powerful steam locomotives; the introduction of petrol-driven railcars from 1924 and their conversion to diesel operation from 1937; the change from steam to main-line diesel electric locomotives commencing in 1951; and the introduction of improved diesel railcars from 1955.

The extent of the change from steam to diesel electric locomotives and from petrol to diesel railcars since 1955 is revealed in the following table.

South Australian Railways, Locomotives and Rollingstock (At 30 June in selected years)

Particulars	1955	1960	1965	1970	1972
	Number				
Locomotives:					
Steam	365	225	151	4	4
Diesel electric;					
Main line	} 12	30	41	54	60
Shunting and transfer		12	21	46	46
General purpose		10	35	45	45
Total	377	277	248	149	155
Rail cars:					
Power;					
Diesel	—	118	134	124	125
Petrol	53	4	—	—	—
Non-power;					
Control equipped	—	7	7	7	7
Trailer	28	52	58	40	37
Coaches	485	353	243	170	109
Interstate coaches	54	61	71	65	110
Goods and livestock wagons	8,895	8,000	7,962	7,694	7,330
Service wagons and vans	478	467	526	622	607

The South Australian Railways use a great variety of specialised rollingstock, most of which is built at its Islington Workshops.

Consumption of locomotive and rail car fuels during the years ended 30 June 1955, 1960, 1965, 1970 and 1972 was as follows.

**South Australian Railways, Locomotive Fuel Consumption
(At 30 June in selected years)**

Fuel	1955	1960	1965	1970	1972
	Tons				
Steam locomotives:					
Coal	199,868	78,861	20,411	1,904	112
Heavy oil	85,310	29,044	4,287	2,887	9
Diesel locomotives:					
Diesel oil	4,949	12,079	20,640	26,127	26,676
Rail cars:					
Petrol	630	253	—	—	—
Diesel oil	814	8,175	8,528	8,311	8,759

Passenger Traffic

The number of passengers carried in 1942-43 was nearly 31 million persons, a substantial increase on the 17.6 million in 1939-40. Following a decline in the immediate post-war period, the number in 1949-50 settled at about the pre-war level, but since 1959-60, has declined to less than fifteen million reflecting mainly the trend in suburban passenger traffic. Country passenger traffic has been generally declining since 1944-45.

South Australian Railways, Passenger Journeys and Passenger Train Mileages

Year	No. of Passengers Carried		Passenger Train Mileage		Average Miles Each Passenger Carried		Average Earnings per Passenger Mile	
	Country (a)	Suburban	Country (a)	Suburban	Country (a)	Suburban	Country (a)	Suburban
	'000	'000	'000	'000	No.	No.	Cents	Cents
1967-68	795	14,447	1,913	2,026	112.71	8.15	1.96	1.62
1968-69	664	13,760	1,550	2,012	127.50	8.14	1.92	1.76
1969-70	549	13,441	1,198	2,090	157.55	8.09	1.95	1.84
1970-71	553	13,393	1,267	2,098	165.84	7.92	2.00	1.94
1971-72	515	12,918	1,222	2,064	158.07	7.79	2.39	2.14

(a) 'Country' passengers carried includes all interstate passengers.

Interstate passenger and freight services are operated in conjunction with interstate railways including the Commonwealth Railways—the Victorian Railways to Melbourne, Commonwealth and Western Australian Railways to Perth, the New South Wales Railways to Sydney and Brisbane, and the Commonwealth Railways to Alice Springs. Sleeping accommodation and first and second class travel are available for interstate journeys. Interstate passengers carried on South Australian Railways are included under 'country' in the preceding table.

From 1 August 1971 all inter-system passenger fares were increased for the first time since 1967. Suburban passenger fares were increased from 1 February 1969,

the average level of increases being 13 per cent compared with 15 per cent for the previous increases on 1 October 1966. From 1 April 1971 suburban rail fares were adjusted to closely align with bus fares for comparable distances: single fares were not greatly affected—in fact the single fare increases applied to less than half of suburban stations and, in eight instances, single fares were reduced. However, all return fares were increased to double the price of single fares.

The table below shows adult single railway fares, in force from 1 August 1971, between Adelaide and selected cities.

Passenger Railway Fares, Adelaide to Selected Australian Cities

Adelaide to	Adult, Single Fare (a)	
	Economy Class	First Class
	\$	\$
Brisbane	33.10	43.80
Broken Hill	6.40	8.10
Canberra	20.70	27.40
Melbourne	11.60	16.10
Perth (b)	55.00	74.30
Sydney	20.70	27.40

(a) All fares include booking fee.

(b) Fares include reserved seats, sleeping berths (where provided) and meals.

Freight Traffic

The railways by-law rate structure was determined by the need to develop the country and this led to the practice of charging what the traffic would bear—charges were higher for expensive commodities than for cheap ones. This type of rate helped to subsidise those people who lived in sparsely populated areas which were served by developmental railways. In the past, losses from these services were recouped by charging higher rates on those lines which carried the greater volume of freight. To meet increased competition from road transport in recent years it has been necessary to introduce special freight rates on some lines. General increases in intrastate freight rates were announced early in 1971: the two previous increases occurred in 1960 and 1966.

From 1 July 1968 a uniform classification of rates and conditions for the movement of inter-system goods traffic was adopted by the Commonwealth Railways authority and all State Railway authorities. However, some traffic on inter-system lines has been excluded from the application of the uniform rates; such exclusions affecting South Australia relate to traffic between railway stations within South Australia; between South Australian Railway stations and Central Australia Railway stations, Trans-Australian Railway stations and Broken Hill: in these cases a combination of local, special or district and inter-system mileage rates applies. The rates from July 1968 are generally lower than those previously applicable. The next table shows the freight tonnages carried by the South Australian Railways for the years 1967-68 to 1971-72.

South Australian Railways, Freight Carried

Freight	1967-68	1968-69	1969-70	1970-71	1971-72
	'000 tons				
Wool	18	21	28	22	22
Wheat	415	563	949	1,059	781
Barley	78	178	256	219	436
Livestock	92	119	172	159	137
Minerals	1,446	1,532	1,675	1,624	1,762
General merchandise	2,352	2,624	2,842	2,941	2,811
Total	4,401	5,037	5,922	6,025	5,948
	'000				
Goods and livestock train mileage	2,479	2,614	2,904	2,979	2,939
	Cents				
Average earnings per ton-mile ...	3.09	2.92	2.79	2.75	2.85

The tonnages of freight carried during 1971-72 were 1.3 per cent below the previous year's record, but were still the second highest on record. The most significant increases were in the movement of gypsum and salt. On the other hand there were substantial decreases in the movement of steel, cement and meat. Container traffic continued to expand. During 1971-72 a total of 297,906 tons of overseas containers were handled, representing an increase of 14.2 per cent over that for 1970-71. During the year the rail movement of pyrites ceased.

Accident Casualties

The table below shows casualties, other than railway employees, as recorded by the South Australian Railways for the years 1967-68 to 1971-72.

South Australian Railways, Accident Casualties

Persons	1967-68	1968-69	1969-70	1970-71	1971-72
Killed	12	12	30	14	7
Injured	61	109	112	111	144

RATIONALISATION OF RAILWAY SERVICES

In May 1968 the Minister of Transport announced the Government's decision to carry out a programme of rationalisation of rail services. A number of existing passenger services were to be cancelled and, in some areas, replaced by either private or departmentally sponsored road passenger services. Subject to inquiry by the Transport Control Board and the Parliamentary Standing Committee on Public Works, some country rail lines were to be closed.

A departmentally sponsored bus service is one for which tenders are called by the South Australian Railways Commissioner and contracts are let to private operators who undertake to provide services at times, fares and parcel rates

specified by the South Australian Railways. Tickets can be purchased at railway stations or from the bus operator at unattended sidings. The operator is paid on a mileage basis.

The Port Lincoln-Ceduna rail passenger service was cancelled in September 1968 and a private bus service commenced on this route in August 1968. At present there is no rail passenger service on Eyre Peninsula other than the recently introduced Commonwealth Railways service between Port Augusta and Whyalla.

At 1 March 1970 other rail passenger services cancelled and replaced by privately operated bus services were those between Adelaide and Eudunda, Kapunda, Angaston, Truro and Moonta; and between Moonta and Kadina.

The early morning and late afternoon services between Adelaide, Bowmans and Balaklava have been cancelled, being no longer used north of Long Plains for their original purpose of transporting workers and school children to and from Adelaide. Departmentally sponsored bus services were instituted running from Long Plains and Virginia to Salisbury where they connect with the Adelaide suburban rail car service. Passengers from Bowmans and Balaklava do not now have an early morning service but at other times may travel on the longer distance trains from Port Pirie and Gladstone respectively.

The Moonta-Brinkworth, Port Pirie-Peterborough and Peterborough-Quorn rail passenger services have been cancelled and not replaced by any departmentally sponsored alternative service. The departmentally sponsored bus service introduced to replace the Gladstone-Wilmington rail passenger service was extended to Quorn when the Peterborough-Quorn rail passenger service was cancelled. The line between Sandergrove and Milang was closed to all traffic in June 1970 without substitution of any specific alternative service, while the passenger service between Adelaide and Victor Harbor has been retained.

At 1 July 1972, of the freight and livestock traffic lines recommended for closure, the Hallett Cove-Willunga, the Sandergrove-Milang, the Eudunda-Morgan, and the Wanbi-Yinkanie lines had been closed: the Mount Barker Junction-Victor Harbor line had been retained.

Further rationalisation of services is under consideration, particularly in relation to suburban passenger trains at off-peak periods and weekends; the cancellation of country passenger services which are not directly associated with interstate operations and, where the demand exists, the provision of substitute road services; further rationalisation of goods and livestock services aimed at concentrating on inter-system operations and on the lines with light traffic.

TRAMWAY AND OMNIBUS SERVICES

MUNICIPAL TRAMWAYS TRUST

The Municipal Tramways Trust was incorporated by Act of Parliament in 1906. The Trust's activities are now regulated by the Municipal Tramways Trust Act, 1935-1971. Exclusive powers are given to the Trust to:

- (1) operate electric tramway systems within a radius of 10 miles from the GPO;
- (2) carry passengers by motor omnibus for hire or reward on any route wholly or partially within the prescribed area as defined by the Act;
- (3) grant to any person a licence to carry passengers by motor omnibus for hire or reward on any route in (2) above.

Private bus operators within the prescribed area must be licensed by the Trust and the licence may stipulate such terms as duration of licence, routes, time-tables and fares. Control is vested in a Board of five members all of whom are appointed by the Governor. Under the Act the State Treasurer is empowered to make grants to the Trust to enable it to meet the expenses incurred in the exercise of its functions.

Historical Survey

A brief historical summary of tramways and omnibus services was included on pages 512-4 of the *South Australian Year Book* 1970 under the headings 'Historical Survey' and 'Route Miles, Mileage Run and Passengers Carried'.

Main developments during the last twenty years have been the replacement of trams with diesel buses (with the exception of Glenelg tram service which runs mainly on enclosed land), the abandonment of electricity generation in favour of purchasing electric power from the Electricity Trust, and erection of new workshops and new parking and servicing depots.

Income and Expenditure

A table showing capital indebtedness, income and working expenses etc. for the last five years is given in Part 12.4 Public Finance—Semi-Government Authorities. Selected details for the five years to 1971-72 are shown in the following table.

Municipal Tramways Trust, Income and Expenditure

Year	Traffic Receipts	Sundry Receipts	Government Grants	Working Expenses	Interest on Loans	Net Deficit
	\$'000					
1967-68 ..	6,009	215	20	5,879	431	65
1968-69 ..	6,233	239	—	6,104	409	41
1969-70 ..	6,448	249	—	6,293	410	6
1970-71 ..	6,640	241	480	6,986	356	-20
1971-72 ..	6,783	195	630	7,282	340	14

At 30 June 1972 loan indebtedness amounted to \$7,267,000; these loans are secured by debentures issued to the Treasurer of South Australia.

Working Expenses

Working expenses of the Trust were \$1,244,000 in 1940-41 and had nearly doubled by 1946-47 when they were \$2,402,000. In 1971-72 working expenses reached a record high level of \$7,282,000. Details for the last five years are given in the following table. The average number of persons employed by the Trust during 1971-72 was 1,202 (159 salaried and 1,043 wages staff): salaries and wages paid amounted to \$5,330,000 or over 73 per cent of total working expenses.

Municipal Tramways Trust, Working Expenses

Working Expense	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Traffic operations	3,281	3,431	3,479	3,954	4,094
Maintenance	1,019	1,065	1,074	1,159	1,227
Power for traffic	30	30	30	30	31
Fuel and oil for traffic	251	244	248	301	349
Highways contribution	86	86	86	87	86
Depreciation	476	429	401	378	485
Other expenses	736	820	976	1,077	1,009
Total	5,879	6,104	6,293	6,986	7,282
	Cents				
Working expenses per traffic mile	55.12	57.16	59.04	64.68	67.60

Route Miles, Mileage Run, Passengers Carried and Fares

The following two tables show the details of route miles, mileage run and passengers carried for the years 1967-68 to 1971-72. The route miles have slightly increased and mileages run have generally decreased over the years shown. The details for electric trams refer to the Adelaide-Glenelg service, the only remaining tram service in this State. Since 1944-45 there has been a steady decline in the number of passengers carried.

Municipal Tramways Trust, Route Miles and Traffic Mileage

Year	Route Miles at End of Year			Mileage Run During Year		
	Electric Trams	Motor Omnibuses	Total	Electric Trams	Motor Omnibuses	Total
	'000					
1967-68	7	150	157	419	10,247	10,666
1968-69	7	151	158	416	10,262	10,678
1969-70	7	163	171	419	10,239	10,658
1970-71	7	163	171	416	10,384	10,800
1971-72	7	164	171	418	10,354	10,772

Municipal Tramways Trust: Passengers, Traffic Miles and Revenue

Year	Passengers Carried	Traffic Revenue	Traffic Mileage	Average Fare	Traffic Revenue per Traffic Mile
	'000	\$'000	'000	Cents	Cents
1967-68 ..	47,813	6,009	10,666	12.34	56.34
1968-69 ..	45,393	6,233	10,678	13.50	58.37
1969-70 ..	43,345	6,448	10,658	14.63	60.50
1970-71 ..	41,259	6,640	10,800	15.82	61.48
1971-72 ..	40,842	6,783	10,772	16.33	62.97

The table below shows passenger fares, effective from 29 April 1973, for travel over various distances measured in sections—in most cases a section is a distance of approximately one mile.

Municipal Tramways Trust, Passenger Fares

Distance Measured in Sections	Adult Cash Fare	Child Cash Fare	Pensioner Cash Fare	Monthly Concession Tickets	
				School Students	Tertiary Students
	Cents			\$	
1.....	10	5	5	1.50	..
2.....	20	10	5	3.00	5.00
3-5	25	10	10	3.00	6.50
6-9	30	15	10	4.50	6.50
10 or more	30	15	15	4.50	6.50

Transfer and periodical tickets were introduced on 25 February 1973: a transfer ticket, costing 35 cents, enables a passenger to transfer on two routes in the same direction at a cheaper rate than previously when it was necessary to pay a fare for travel on each route separately; a periodical ticket is available on a weekly basis at a cost of 10 times the normal cash fare for the number of sections travelled. These tickets entitle the holder to unlimited travel over the route and sections specified on the pass seven days a week.

Rollingstock

The change from electric traction to diesel operation is reflected in the following table which shows details of rollingstock in selected years.

Municipal Tramways Trust, Rollingstock and Seating Capacity

At 30 June (a)

Particulars	1950	1955	1960	1965	1970	1972
Rollingstock:						
Electric trams ...	279	178	30	30	26	26
Motor omnibuses	81	140	364	353	344	396
Trolley buses ...	61	91	56	—	—	—
Total vehicles	421	409	450	383	370	422
Seating capacity:						
Electric trams ...	14,280	10,147	1,908	1,908	1,664	1,664
Motor omnibuses	3,998	5,268	14,428	14,112	14,234	17,694
Trolley buses ...	2,984	4,184	2,006	—	—	—
Total seating	21,262	19,599	18,342	16,020	15,898	19,358

(a) 31 January in 1950.

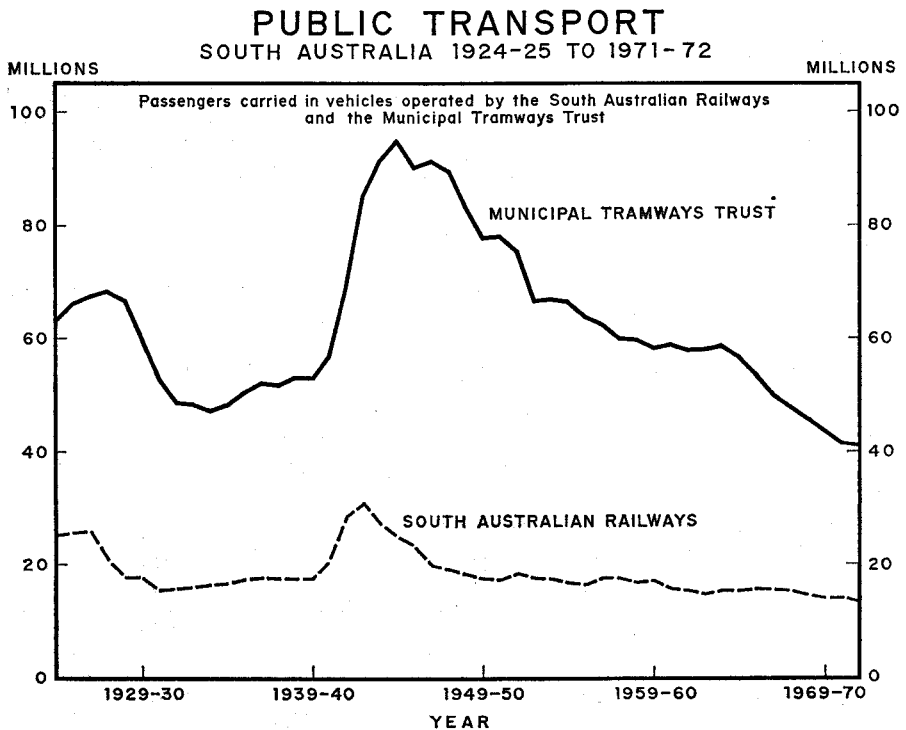
Under a three year programme, completed late in 1972 at a cost of \$5.2 million, the Trust replaced its fleet of buses with vehicles designed for one-man operation. The new vehicles have rear mounted engines, lower step height and two-way radio contact with the depot.

Accident Casualties

The following casualties resulted from accidents which occurred during the last five years.

Municipal Tramways Trust, Accident Casualties

Year	Passengers		Employees		Total (including other)	
	Killed	Injured	Killed	Injured	Killed	Injured
1967-68	—	120	—	85	2	229
1968-69	—	105	—	89	—	214
1969-70	—	107	—	83	3	210
1970-71	—	109	—	71	1	200
1971-72	—	119	—	88	3	235

**PRIVATE MOTOR OMNIBUS SERVICES****Metropolitan Services**

Since 1941 route mileage of private motor omnibuses licensed by the Municipal Tramways Trust has increased by more than five times from 46.40 miles in 1941 to 253.90 miles in 1971-72, while the number of passengers carried has increased by more than six times from 2.3 million to 15.3 million. A large

part of the increase in the number of passengers carried occurred in the ten years from 1941 (2.3 million) to 1951 (10.7 million).

The Municipal Tramways Trust grants licences to private bus operators to carry passengers within the prescribed area which includes the Cities of Elizabeth and Salisbury and parts of the local government areas of Munno Para and Tea Tree Gully.

Private Motor Omnibuses, Metropolitan Services

Year	Route Mileage	Mileage Run	Passengers Carried	Rolling Stock	Traffic Receipts (Gross)
	Miles	'000 miles	'000	No.	\$'000
1967-68 ..	251	6,215	15,458	225	2,083
1968-69 ..	254	5,963	15,024	230	2,123
1969-70 ..	251	6,757	15,171	244	2,355
1970-71 ..	253	6,673	14,856	253	2,523
1971-72 ..	254	6,744	15,329	257	2,716

Interstate and Country Services

Regular interstate bus services and special tours operate to all States. There are co-ordinated passenger rail and bus services on a number of additional routes.

TAXI-CABS

The Metropolitan Taxi-Cab Act, 1956-1972, administered by the Metropolitan Taxi-Cab Board, is the governing legislation providing for the control of taxi-cabs within a 10 mile radius of the GPO, Adelaide and the District Council of Stirling and the Cities of Tea Tree Gully, Elizabeth and Salisbury. The Board is responsible for the granting of licences or permits to operate taxi-cabs, the allotment of vehicles to stands and the charging of permit fees.

Taxi-cabs at present licensed for the Salisbury and Elizabeth areas must remain 'pegged' to the stands within the municipal boundaries of those areas, but after dropping a passenger outside of those areas the driver must head back in the direction of Salisbury and Elizabeth and if available for hire must accept a hail and proceed to any required destination within a 25 mile radius of the Adelaide GPO.

Regulations under the Act provide for the examination of taxi-cabs: the roadworthiness of all taxi-cabs is examined by the Police Department each year and the Board's inspectors check and test all meters. It is compulsory for taxis to be fitted with meters which record progressively the cost of each journey at rates prescribed from time to time. At May 1973 the rates were 24 cents for 'flag fall' and 22 cents a mile. The area in which these metered charges apply is determined by the Board and is known as the 'metered zone'. Outside of this zone but within an area of 25 miles radius from the GPO Adelaide, a 50 per cent loading, equal to 11 cents a mile, is charged. For journeys which extend beyond the 25 mile radius contract rates not to exceed 15 cents per outward and return mile are charged.

Licences issued at 30 June 1972 include taxi-cabs, white plates (*i.e.* restricted) 250, green plates 548; hire cars 39; and funeral cars 11. Drivers' licences current totalled 3,060.

Taxi licence fees are \$38 per year and private hire licence fees are \$25. Revenue received during 1971-72 was \$28,756 from taxi licences, \$1,055 from hire car licences and \$11,173 from drivers' licences. Total revenue from all sources was \$85,446, and expenditure was \$63,967.

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, third party insurance, and general rules to be observed by road users (including pedestrians) in South Australia was contained in the Road Traffic Act, 1934-1958. In December 1959 legislation on registration, licensing, and third party insurance, was passed under the Motor Vehicles Act, 1959 and similar provisions were repealed from the Road Traffic Act.

The present legislation for the control of road traffic in South Australia is set out in the Road Traffic Act, 1961-1972 and the Motor Vehicles Act, 1959-1972.

Registration of Motor Vehicles

Under the provisions of the Motor Vehicles Act, 1959-1972 all motor vehicles, unless specifically exempted, must be registered with the Registrar of Motor Vehicles before being driven on any public road.

The Motor Vehicles Act defines a motor vehicle as:

- (a) a vehicle, tractor or mobile machine driven or propelled by a steam engine, internal combustion engine, electricity or any other power not being human or animal; or
- (b) a trailer;

but does not include a vehicle run upon a railway or tramway.

Permits to use vehicles, without registration, between farm blocks may be granted by the Registrar. A 14-day permit to drive a motor vehicle pending registration may be issued, under certain circumstances, by a member of the police force stationed at a police station more than 25 miles from the GPO Adelaide.

Registration fees vary according to the power-weight (PW) of the vehicle; this is calculated by adding the weight of the vehicle in hundredweights to its rated horsepower. Fees for trailers are based on unladen weight and vehicles fitted with solid rubber or metal tyres are subject to higher rates.

Annual registration fees for motor vehicles were increased during 1971. For motor bicycles the fees vary between \$4 for a vehicle weighing less than one hundredweight to \$8 for a motor bicycle having a side car attached. For commercial vehicles the range of fees is from \$6 for a vehicle not exceeding 10 PW and with tare weight 35 cwt or less to \$67.60 plus \$7.80 for each 5 PW or portion thereof exceeding 75 PW, for vehicles exceeding 75 PW. For private vehicles a minimum annual fee of \$7 applies for vehicles that do not exceed 10 PW and for vehicles in excess of 75 PW a maximum fee of \$47.90 plus \$4.70 for each 5 PW or portion thereof of the PW of the vehicle exceeds 75. Registration fees for trailers (with pneumatic tyres) range from \$6 for trailers of unladen weight not exceeding one ton to \$12 for trailers of unladen weight exceeding 2 tons.

Motor vehicles used for certain purposes are registered without fee, e.g. vehicles owned by the Fire Brigades Board and other firefighting organisations, ambulances (for the use of which no charge is made), council vehicles used solely or mainly for the collection and transport of household refuse, etc. Registration at reduced rates is allowed for primary producers' commercial vehicles and tractors, prospectors' vehicles, and for vehicles used wholly or mainly in outer areas. Reduced rates are available to incapacitated ex-servicemen also, and to some persons in receipt of Commonwealth pensions. Vehicles used solely for interstate trade can be registered for \$2 for a period of twelve months.

The Act provides for registered vehicles to carry number plates and for a registration label to be affixed to each registered vehicle. It also provides for the issue of general traders plates and limited traders plates.

From January 1967 all new vehicles have been registered within an alpha-numeric series, each number plate bearing up to three letters and numbers consisting generally of three digits. Old series registrations, indicated in most cases by numbers of up to six digits, are being converted gradually to the new series as vehicles are re-registered following lapse of registration or change of ownership. At 30 June 1972 approximately 69 per cent of the total number of vehicles on the South Australian register carried the alpha-numeric plates. The change to alpha-numeric registrations is being undertaken throughout Australia with different alphabetic series allocated to each State: those for South Australia comprise alphabetic series with initial letters R, S and T.

Third party bodily injury insurance as a prerequisite to registration of a motor vehicle is discussed on page 511.

Motor Vehicles on Register

The following table shows the number of motor vehicles on the register at 31 December from 1968 to 1972.

Motor Vehicles on Register, South Australia^(a)
At 31 December

Type of Vehicle	1968	1969	1970	1971	1972
			'000		
Cars.....	287.2	304.0	319.5	339.2	356.2
Station wagons	51.1	55.2	58.3	61.6	64.2
Light commercial type vehicles:					
Open ^(b)				33.7	34.2
Closed ^(c)				10.1	10.3
Trucks ^(e)				43.3	43.5
Other truck type vehicles ^(f)				1.7	1.9
Buses	2.1	2.4	2.6	2.7	2.9
Motor cycles	13.0	13.5	14.9	18.1	22.7
Total on register ..	438.1	461.4	482.3	510.3	536.0
Population per vehicle ..	2.58	2.49	Persons 2.43	2.32	2.23
			'000		
Tractors, plant, equipment	6.8	7.0	7.2	7.3	7.3
Trailers and caravans	85.1	89.0	93.1	98.6	106.0
Traders plates	2.9	3.0	2.9	2.9	2.8

(a) Includes Commonwealth owned vehicles except defence services vehicles. (b) Includes utilities and trucks with carrying capacity under 20 cwt. (c) Includes panel vans and trucks with carrying capacity under 20 cwt and ambulances and hearses. (d) A new classification was adopted for this series in 1971 and figures for previous periods are not comparable. (e) Includes utilities, panel vans and trucks with carrying capacity over 20 cwt. (f) Includes truck type vehicles not designed for freight carrying e.g. tow trucks and fire engines.

New Motor Vehicle Registrations

New motor vehicle registrations during the calendar years 1968 to 1972 are shown in the following table.

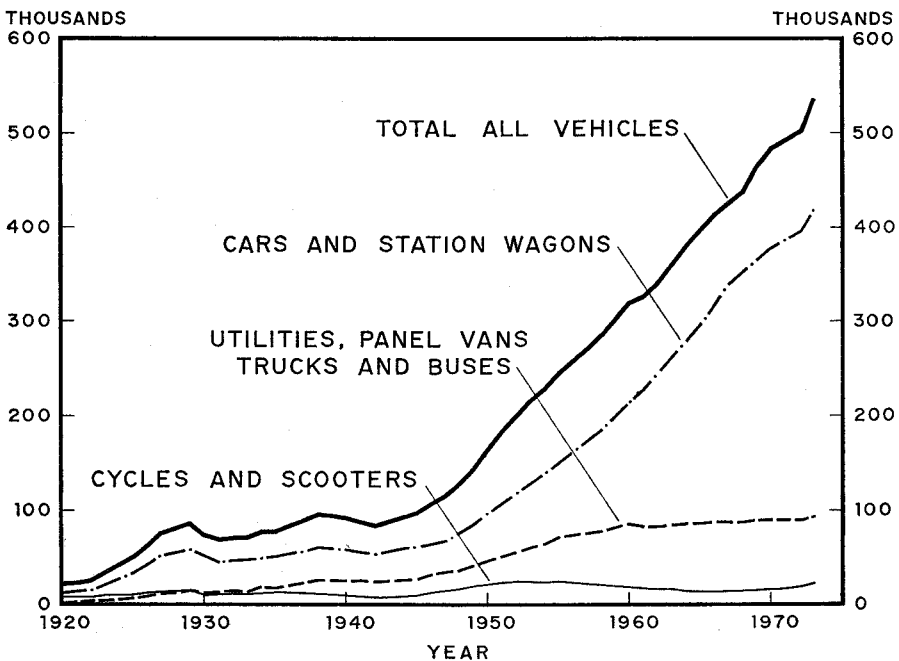
New Motor Vehicle Registrations, South Australia^(a)

Type of Vehicle	1968	1969	1970	1971	1972
Cars	29,424	33,620	34,311	33,563	32,779
Station wagons	4,598	4,847	4,309	4,134	4,193
Light commercial type vehicles:					
Open ^(b)	} (d)6,130	} (d)6,888	} (d)6,547	} (d)5,945	} 3,093
Closed ^(c) .....						1,258
Trucks ^(e)					2,424
Other truck type vehicles ^(f)					69
Buses	187	244	280	337	326
Motor cycles	1,940	2,225	2,994	4,474	6,523
Total	42,279	47,824	48,441	48,453	50,665

(a) Includes Commonwealth owned vehicles except defence services vehicles. (b) See footnote (b) in the table on page 507. (c) See footnote (c) in the table on page 507. (d) A new classification was adopted in 1972 and figures for earlier periods are not comparable. (e) See footnote (e) in the table on page 507. (f) See footnote (f) in the table on page 507.

MOTOR VEHICLES ON REGISTER

SOUTH AUSTRALIA 1920 TO 1972



In the following table new motor vehicle registrations are classified by horsepower (RAC).

New Motor Vehicle Registrations: Classified by Horsepower (RAC)
South Australia^(a)

Type of Vehicle and Horsepower	1968	1969	1970	1971	1972
Cars:					
Under 10	188	175	217	221	190
10-14	4,271	4,643	4,375	4,786	5,255
15-19	9,030	9,886	9,609	7,662	6,580
20-24	650	977	1,745	2,768	3,532
25-29	4,838	5,836	5,230	3,687	3,615
30-34	5,556	8,936	10,354	10,375	8,956
35 and over	4,891	3,098	2,657	3,733	4,314
Rotary	—	69	124	331	337
Total	29,424	33,620	34,311	33,563	32,779
Station wagons:					
Under 20	480	700	561	504	424
20-29	1,552	1,571	1,176	941	1,210
30-39	2,296	2,356	2,336	2,376	2,178
40 and over	270	220	236	313	381
Total	4,598	4,847	4,309	4,134	4,193
Light commercial type vehicles:					
Open (b) (c);					
Under 20	361	445	261	291	266
20-29	1,488	1,600	1,446	923	1,665
30-39	950	1,146	1,117	1,111	1,042
40 and over	32	72	88	85	120
Total	2,831	3,263	2,912	2,410	(c) 3,093
Light commercial type vehicles:					
Closed (c) (d);					
Under 20	449	535	585	737	615
20-29	350	345	459	427	290
30-39	199	158	190	233	311
40 and over	1	6	14	12	42
Total	999	1,044	1,248	1,409	(c) 1,258
Trucks (c) (e):					
Under 20	236	286	363	289	328
20-29	485	542	391	315	540
30-39	949	1,055	940	853	1,004
40-49	386	376	331	360	315
50 and over	201	269	317	257	306
Total	2,257	2,528	2,342	2,074	(c) 2,493

(a) Includes Commonwealth owned vehicles except defence services vehicles.

(b) Includes utilities; from January 1972 includes utilities and trucks with carrying capacity under 20 cwt.

(c) From January 1972 a revised classification of vehicles, based on load carrying capacity was introduced and figures for earlier periods are not comparable.

(d) Includes panel vans; from January 1972 includes panel vans and trucks with load carrying capacity under 20 cwt., and ambulances and hearses.

(e) Includes tankers, concrete agitators and truck type vehicles which are not designed for freight carrying e.g. fire engines and tow trucks.

Drivers' Licences

A new classification of drivers' licences was introduced on 1 April 1973, providing for the following classes of licences:

- Class 1: to drive (a) any motor car or (b) any motor vehicle, the weight of which (excluding the weight of any trailer) does not exceed 35 cwt, except an articulated motor vehicle, a motor cycle or a motor omnibus;
- Class 2: to drive any motor vehicle except an articulated motor vehicle, a motor cycle or a motor omnibus;
- Class 3: to drive any motor vehicle except a motor cycle or a motor omnibus;
- Class 4: to drive a motor cycle;
- Class 5: to drive a motor omnibus.

Existing Class A or B licences will be converted to appropriate new licence classes as they come up for renewal. A licence may be endorsed with more than one class number.

The Motor Vehicles Act provides that an applicant must apply for a permit to learn to drive a motor vehicle and will be issued with a learner's permit once he has passed a written examination on the rules of the road. The permit is for a period not exceeding three months during which time the holder is expected to undergo a practical test conducted by a police officer appointed for the purpose. If he passes the test he will be issued with a certificate stating the type and make of vehicle used and that he was capable of driving this class of motor vehicle. He may then apply to the Registrar for the appropriate licence.

Provision is also made for the testing of drivers suspected of being incompetent or suffering from a disease or disability which may impair their ability to drive, and for the suspension of their licences should they fail the test. Persons who will reach the age of 70 years during the currency of their next licence are tested before that licence is issued. Optical tests also are imposed at age 75 years.

From 1 January 1971 the licence fee was increased from \$2 to \$3; the fee for a learner's permit remained unaltered at \$1. Licences and permits are not issued to persons under sixteen years of age.

In 1961, licences for motor driving instructors were introduced and are compulsory where instruction is given for reward. The licence fee is \$20 for a period of three years.

Drivers' and riders' licences current at 31 December 1972 totalled 570,562. The number in force first exceeded 100,000 in 1931, totalled 215,157 by 1951, 315,044 by 1957, and had risen to 447,985 at December 1965.

Revenue from Registrations and Licences

Revenue from registration fees and drivers' and riders' licence fees totalled \$19,554,000 in 1971-72. These fees are paid into Consolidated Revenue Account; but after deductions have been made for sinking fund and interest on loans raised for roads and bridges, and the administration expenses of the Highways and Motor Vehicles Departments, the balance is paid into the Highways Fund.

Third Party Insurance

Under the Motor Vehicles Act, 1959-1972 every motor vehicle driven on a public road, unless specifically exempted, must be covered by an insurance policy which insures the owner of the motor vehicle to which the policy relates, and any other person who at any time drives the vehicle whether with or without the consent of the owner, in respect of all liability for negligence that may be incurred by the owner or other person 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 the Commonwealth.

Insurance must be effected with an insurance company approved by the Minister of Roads and Transport. Insurance companies wishing to transact this type of business make application for approval and if this is granted they are obliged to accept the business from anyone requesting it: should an approved insurer wish to discontinue the writing of such business permission of the Minister must be obtained.

An amendment to the Motor Vehicles Act in December 1971 provided for a simplified method of obtaining the necessary third party bodily injury insurance. A vehicle owner no longer directly approaches an insurance company for an insurance certificate and policy. Instead, an applicant inserts the name of an insurer, selected from a list of approved insurers, on the registration or renewal application form and pays to the Motor Vehicles Department one amount to cover third party insurance, registration and other relevant fees: after deduction of a nominal collection fee the premiums are paid by the Registrar of Motor Vehicles to the insurance companies. The amendment to the Act specifies a common insurance policy, a copy of which is sent by the Registrar to each vehicle owner.

Liabilities of insurers, set out in the Motor Vehicles Act, include the liability to pay for emergency treatment and hospital treatment to a person injured (including fatally injured) by or arising out of the use of an insured motor vehicle.

Where the driver of a motor vehicle has caused death or bodily injury in the use of that vehicle and the identity of the vehicle cannot be ascertained, then a person who could have obtained a judgment against the driver may give notice to the Minister of Roads and Transport and recover by action against a 'nominal defendant' named by the Minister of Roads and Transport. Payment by the nominal defendant is out of money contributed by all approved insurers under a scheme administered by the Minister of Roads and Transport.

The Minister of Roads and Transport appoints a 'nominal defendant' where a claim is made by a person in respect of death or a bodily injury caused by negligence in the use of an uninsured motor vehicle on a road. Payments made by the 'nominal defendant' are recoverable from the driver of the motor vehicle or any person liable for the negligence of that driver.

An injured person may claim against his or her spouse where the spouse is an insured person and has caused that person bodily injury by negligence in the use of a motor vehicle.

A committee appointed by the Governor on the recommendation of the Minister of Roads and Transport having all the powers of a royal commission periodically inquires into and reports on what are considered to be fair maximum premium rates for third party insurance and the approved rates are generally adopted by the insurance companies.

In March 1971, premiums for private and business cars in the metropolitan area were increased, for the first time since February 1967, by \$1.00 to \$28.50; premiums in the country remained unchanged at \$25.00. Premiums for primary producers' trucks were reduced by \$1.00 to \$8.00. There were no changes to premiums for taxis, \$140.00 in the metropolitan area and \$50.00 in the country, or for goods-carrying vehicles in the metropolitan area, \$32.00.

During 1970-71, third party insurance premiums received amounted to \$13,209,000 and claims paid were \$8,503,000.

Census of Motor Vehicles

A census of motor vehicles on the register at 30 September 1971 was completed in Australia during 1972. An earlier census was conducted at 31 December 1962.

The following tables show the number of vehicles of each type and year of model in South Australia at 31 December 1962 and 30 September 1971.

Number of Motor Vehicles, South Australia, 1962 and 1971^(a)

Type of Vehicle	31 December 1962	30 September 1971
	'000	
Motor cars	220.0	335.5
Station wagons	18.9	61.2
Light commercial type vehicles (b):		
Open	} 48.2	{ 33.6
Closed .....			10.0
Trucks (b):		
Rigid	} 31.7	{ 39.3
Articulated .....			2.9
Other truck type vehicles	1.0	1.6
Buses	1.6	2.6
Motor cycles	16.7	16.9
Total	338.1	503.7

(a) Includes Commonwealth owned vehicles except defence services vehicles.

(b) Total light commercial type vehicles and total trucks for 1971 are not strictly comparable with figures for 1962 because of changes in classification, e.g. for 1971 trucks include vehicles previously allocated to light commercial type vehicles.

**Number of Tractors, Plant and Equipment, Caravans and Trailers
South Australia, 1962 and 1971^(a)**

Type of Vehicle	31 December 1962	30 September 1971
	'000	
Tractors	} 4.7	{ 3.3
Plant and equipment .....			3.9
Caravans	} 60.6	{ 15.0
Trailers .....			81.9
Total	65.3	104.1

(a) Includes Commonwealth owned vehicles except defence services vehicles.

**Number of Motor Vehicles: Type, Year of Model, South Australia, at
30 September 1971^(a)**

Year of Model	Type of Vehicle						Total (b)
	Motor Cars	Station Wagons	Light Commercial Type Vehicles	Trucks	Other Truck Type Vehicles	Buses	
	'000						
Before 1950 ...	2.0	—	0.4	2.6	0.3	—	5.3
1950 to 1954 ..	13.3	0.1	2.4	5.2	0.1	0.1	21.2
1955 to 1959 ..	41.2	4.2	7.3	6.1	0.2	0.5	59.6
1960.....	14.2	3.2	2.2	1.5	0.1	0.1	21.3
1961.....	10.8	2.9	2.0	1.4	0.1	0.1	17.2
1962.....	17.1	4.5	2.5	1.6	0.1	0.1	25.9
1963.....	21.6	6.4	2.8	2.2	0.1	0.2	33.3
1964.....	24.6	7.6	3.3	3.0	0.1	0.1	38.8
1965.....	25.1	6.0	3.2	2.7	0.1	0.1	37.2
1966.....	22.4	4.7	2.9	2.5	0.1	0.1	32.7
1967.....	24.9	4.8	3.0	2.4	0.1	0.1	35.3
1968.....	28.2	4.3	2.8	2.7	0.1	0.2	38.3
1969.....	31.6	4.7	3.2	3.3	0.1	0.3	43.3
1970.....	35.4	4.8	3.5	3.2	0.1	0.2	47.3
1971.....	23.0	3.0	1.9	1.9	0.1	0.2	30.1
Total (c)	335.5	61.2	43.6	42.2	1.6	2.6	503.7

(a) Includes Commonwealth owned vehicles except defence services vehicles.

(b) Includes 16,600 motor cycles; year of model of motor cycles is available only in a few cases.

(c) Includes vehicles for which year of model is unknown.

Motor Vehicle Usage

In November 1963 a postal sample survey of motor vehicle usage was conducted throughout Australia. The timing of the collection and the specification of the form were such that details can be taken as representative of usage in the calendar year 1963. A summary of results obtained for South Australia is set out on page 514.

It should be borne in mind that since these results were obtained from a small sample they should be considered as approximations only. In addition, total fuel consumption calculated from the survey appears low in comparison with other available information. The deficiency appears to be of the order of 15 to 20 per cent; a possible explanation is a tendency, particularly among car owners, to overstate average mileage per gallon.

For cars and station wagons in South Australia (excluding dealer-owned vehicles) the average annual mileage was 7,760 for those registered at a metropolitan address and 9,330 for those registered at a non-metropolitan address. Corresponding figures for the whole of Australia were 8,770 and 8,760 respectively.

A further survey of motor vehicle usage was held late in 1971 but the results are not yet available.

Motor Vehicle Usage: South Australia, 1963^(a)

Type of vehicle	Average Annual Mileage per Vehicle	Average Fuel Consumption (b)	Business Mileage as a Proportion of Total Mileage
	Miles	MPG	Per cent
Cars and station wagons	8,180	25.5	25.0
Utilities and panel vans	8,370	20.3	75.1
Trucks, with carrying capacity of:			
Less than two tons	5,400	13.2	97.3
Two tons but less than three tons	4,860	11.7	98.3
Three tons but less than five tons	5,860	10.3	99.1
Five tons and over; rigid.....	10,400	8.7	99.4
Five tons and over; articulated	29,550	6.7	100.0

(a) Excludes defence services vehicles.

(b) May be overstated—see text above.

Road Traffic Board

The Road Traffic Board of South Australia is a body, set up in 1960 under the provisions of the Road Traffic Act, 1961-1972, with the following functions:

- (1) make recommendations to the Minister on roads and traffic generally, on the use of traffic control devices and other measures in relation to road safety;
- (2) promote uniformity in the design and use of traffic control devices;
- (3) conduct research and collect statistics relating to road traffic accidents and other traffic problems;
- (4) disseminate information and advice on road safety and traffic laws and regulations;
- (5) investigate and report on proposals for alterations of and additions to traffic laws and regulations.

Road Safety

Some recent moves towards greater road safety were detailed on pages 507-8 of the *South Australian Year Book 1971*. These related to required safety features of vehicles and fitting of seat belts; the establishment of a Road Safety Instruction Centre; the findings of a Committee of Enquiry into Road Safety; and a points demerit scheme for drivers convicted of specified offences.

In October 1972 the Road Safety Instruction Centre was opened on a 207-acre site at Marion. It provides for:

- (1) further education of licensed drivers and riders;
- (2) in-service training for teachers involved in road safety education in schools, and facilities for the student driver education programme;

- (3) courses for licensed drivers wishing to become professional drivers or driving instructors;
- (4) road safety education for children, pedestrians, cyclists, motor cyclists and drivers.

The Centre also provides the Road Safety Council of South Australia with permanent administrative headquarters which include lecture rooms, instruction areas and a large scale road system on which all aspects of driver education can be carried out.

The points demerit scheme has been in operation since 29 April 1971. In 1972 warning notices were sent to 9,400 drivers who had accumulated six or more demerit points and 640 drivers with twelve or more demerit points had their driving licences suspended.

An amendment to the Road Traffic Act prescribing compulsory wearing of seat belts in vehicles required to be equipped with belts, was introduced on 29 November 1971.

Road Traffic Accidents

Statistics of road traffic accidents are compiled from reports made to members of the South Australian Police Department by persons involved in such accidents. Section 43 of the Road Traffic Act sets out the obligations of the driver of a vehicle involved in an accident—he must stop his vehicle at once, render any assistance of which he is capable to anyone injured in the accident, state his name and address if requested to any person having reasonable grounds for such request, and report the accident to the Police as soon as possible, or at least within twenty-four hours of the accident. However, it is a defence against a charge relating to non-reporting of an accident if a defendant can prove either that he did not know that an accident occurred or that the only damage or injury resulting from the accident was to property and that a fair estimate of the damage did not exceed \$50.

For the purpose of these statistics, a road traffic accident is defined as an accident which occurs because of the presence of a vehicle on a road (or other public thoroughfare, e.g. public car park, beach) and which involves property damage exceeding \$50 or casualty; a casualty occurring if the accident resulted in:

- (1) the death of any person within a period of thirty days of the accident,
or
- (2) bodily injury to any person to an extent requiring surgical or medical treatment.

With the introduction of a more comprehensive accident report form on 1 October 1967, statistics have become available as a result of a joint effort by the South Australian Police Department, the Road Traffic Board of South Australia and the Bureau of Census and Statistics. Before this date, the South Australian Police Department was the sole authority preparing statistics of road traffic accidents.

The next table shows summary details of road traffic accidents for the years 1968 to 1972. During 1972 the total number of recorded road traffic accidents increased by more than 4 per cent (from 32,400 in 1971 to 33,952 in 1972). The number of accidents which resulted in casualties increased by more than 9 per cent (from 7,386 in 1971 to 8,116 in 1972).

Road Traffic Accidents, South Australia

Year	Total Accidents Recorded	Accidents Involving Casualties	Persons Killed	Persons Injured	Rate per 100,000 Motor Vehicles on Register (a)			Rate per 100,000 of Mean Population		
					Total Accidents Recorded	Persons Killed	Persons Injured	Total Accidents Recorded	Persons Killed	Persons Injured
1968.....	25,768	6,421	275	8,902	6,020	64	2,080	2,296	25	793
1969.....	27,503	6,895	251	9,961	6,114	56	2,214	2,414	22	874
1970.....	30,464	7,424	349	10,484	6,457	74	2,222	2,631	30	905
1971.....	32,400	7,386	292	10,132	6,592	59	2,062	2,757	25	862
1972.....	33,952	8,116	312	10,997	6,518	60	2,111	2,855	26	925

(a) 'Motor vehicles on register' is the mean number for each year; includes Commonwealth owned vehicles except defence services vehicles; excludes road tractors and trailers.

In the following table, the types of road users killed and injured are shown according to age groups for 1972.

Road Traffic Accidents: Age Groups of Casualties, South Australia
1972

Age Group of Casualty (years)	Drivers of Motor Vehicles	Motor Cyclists	Pedal Cyclists	Passengers	Pedestrians	All Other	Total
PERSONS KILLED							
Under 5	—	—	—	10	9	—	19
5 — 16	1	1	6	20	12	—	40
17 — 20	29	12	—	18	7	—	66
21 — 29	28	8	—	15	4	—	55
30 — 39	15	3	—	2	—	—	20
40 — 49	18	2	1	7	7	—	35
50 — 59	18	2	—	6	3	—	29
60 and over ...	11	—	5	10	22	—	48
Total	120	28	12	88	64	—	312
PERSONS INJURED							
Under 5	—	—	1	254	95	—	350
5 — 16	105	128	298	819	275	1	1,626
17 — 20	974	693	32	758	74	4	2,535
21 — 29	1,122	275	28	520	60	1	2,006
30 — 39	633	53	21	217	38	—	962
40 — 49	500	32	40	213	59	—	844
50 — 59	386	24	28	175	71	—	684
60 and over ...	266	11	24	182	110	—	593
Not stated	281	97	52	860	103	4	1,397
Total	4,267	1,313	524	3,998	885	10	10,997

Drivers (including motor cyclists) under twenty-one years of age, representing only 12 per cent of licence holders at 30 June 1972, accounted for 19 per cent of drivers involved in accidents, 29 per cent of drivers killed and 34 per cent of drivers injured during 1972. For drivers aged twenty-one to twenty-four years involvements were 13 per cent, deaths 12 per cent and injuries 15 per cent while their representation in the driving population was 12 per cent.

Pedestrians sixty years and over accounted for 14 per cent of pedestrians involved, 12 per cent of pedestrians injured and 34 per cent of pedestrians killed.

The likelihood of sustaining serious injury when involved in an accident is more than nine times higher for motor cycle riders than for drivers of motor vehicles: 67 per cent of motor cycle riders involved in accidents received medical or hospital treatment compared with 7 per cent of drivers of other vehicles.

The following table shows casualties by type of road user for each of the last five years. In each of these years more motor vehicle drivers were killed or injured than any other type of road user.

Road Traffic Accidents: Casualties, South Australia

Year	Drivers of Motor Vehicles	Motor Cyclists	Pedal Cyclists	Passengers	Pedestrians	All Other	Total
PERSONS KILLED							
1968.....	104	8	19	84	59	1	275
1969.....	108	6	16	66	55	—	251
1970.....	144	12	10	128	55	—	349
1971.....	109	14	9	103	57	—	292
1972.....	120	28	12	88	64	—	312
PERSONS INJURED							
1968.....	3,560	630	517	3,376	810	9	8,902
1969.....	3,990	728	530	3,905	804	4	9,961
1970.....	4,315	812	513	4,017	827	—	10,484
1971.....	3,991	930	546	3,862	799	4	10,132
1972.....	4,267	1,313	524	3,998	885	10	10,997

The following table shows details of features of the roadways on which the accidents occurred. During 1972 there were 17,170 accidents at intersections (51 per cent of accidents reported) and approximately one-half of the total number of injuries occurred at intersections. However, of the 312 road deaths, 41 per cent were on straight roads compared with 33 per cent at intersections: a further 21 per cent of deaths occurred on bends or curves.

Road Traffic Accidents: Features of Roadways on which Accidents Occurred, South Australia, 1972

Features of Roadway	Total Accidents Reported	Accidents Involving Casualties	Persons Killed	Persons Injured
Intersections:				
Controlled	4,655	920	17	1,292
Uncontrolled	12,515	3,073	85	4,214
Other than intersections:				
Straight road	12,623	2,908	127	3,713
Bend or curve	2,225	829	64	1,234
Railway level crossing;				
Controlled	89	20	2	29
Uncontrolled	91	37	5	52
Other location	1,754	329	12	463
Total	33,952	8,116	312	10,997

Details of road traffic accidents for 1972 according to time and day of occurrence are shown in the next table. More accidents occurred on Fridays (6,009 accidents) and Saturdays (5,996) than on other days of the week. Combining all days of the week, more accidents occurred between 4 p.m. and 6 p.m. than during any other two-hour period. That time-slot showed also the greatest number of accidents for any single day of the week (Fridays, 1,354). More deaths resulted from accidents occurring on Saturdays (70) than on any other day of the week.

**Road Traffic Accidents: Day of Week and Time of Occurrence, South Australia
1972**

Time of Occurrence	Monday	Tuesday	Wednes- day	Thursday	Friday	Saturday	Sunday	Total
TOTAL ACCIDENTS								
After: Until:								
Midnight 2 a.m.	62	47	60	112	116	414	667	1,478
2 a.m. 4 a.m.	14	26	21	28	32	111	211	443
4 a.m. 6 a.m.	37	15	15	17	32	51	55	222
6 a.m. 8 a.m.	419	348	380	378	348	137	68	2,078
8 a.m. 10 a.m.	585	558	521	556	535	463	149	3,367
10 a.m. 12 noon	418	394	376	399	463	849	357	3,256
12 noon 2 p.m.	452	429	404	450	530	565	389	3,219
2 p.m. 4 p.m.	595	498	520	548	670	549	572	3,952
4 p.m. 6 p.m.	1,155	1,034	1,084	1,166	1,354	880	689	7,362
6 p.m. 8 p.m.	428	438	439	521	822	847	444	3,939
8 p.m. 10 p.m.	236	218	294	309	499	518	268	2,342
10 p.m. Midnight	190	179	223	310	608	612	172	2,294
Total	4,591	4,184	4,337	4,794	6,009	5,996	4,041	33,952
PERSONS KILLED								
After: Until:								
Midnight 2 a.m.	—	1	—	2	5	8	14	30
2 a.m. 4 a.m.	3	1	—	1	—	2	11	18
4 a.m. 6 a.m.	—	2	—	—	1	1	—	3
6 a.m. 8 a.m.	2	1	4	4	2	2	—	16
8 a.m. 10 a.m.	3	1	—	3	4	4	1	16
10 a.m. 12 noon	2	—	2	4	3	3	5	19
12 noon 2 p.m.	3	2	—	3	3	3	7	23
2 p.m. 4 p.m.	10	3	3	3	1	5	6	30
4 p.m. 6 p.m.	4	7	4	4	7	10	7	43
6 p.m. 8 p.m.	3	2	8	10	12	10	2	47
8 p.m. 10 p.m.	3	1	6	1	9	12	1	33
10 p.m. Midnight	3	1	6	6	10	8	—	34
Total	36	22	33	40	57	70	54	312
PERSONS INJURED								
After: Until:								
Midnight 2 a.m.	35	21	21	46	41	217	315	696
2 a.m. 4 a.m.	6	12	12	12	17	53	144	256
4 a.m. 6 a.m.	11	7	9	6	11	23	29	96
6 a.m. 8 a.m.	135	88	115	89	110	60	23	620
8 a.m. 10 a.m.	165	142	152	136	140	118	68	921
10 a.m. 12 noon	118	106	86	97	93	251	141	892
12 noon 2 p.m.	118	111	105	121	157	193	160	965
2 p.m. 4 p.m.	181	137	150	126	188	197	267	1,246
4 p.m. 6 p.m.	321	244	298	265	335	326	328	2,117
6 p.m. 8 p.m.	125	154	126	183	254	292	187	1,321
8 p.m. 10 p.m.	89	86	116	115	165	209	106	886
10 p.m. Midnight	76	100	97	130	245	243	90	981
Total	1,380	1,208	1,287	1,326	1,756	2,182	1,858	10,997

Although more than two-thirds of all accidents occurred between 6 a.m. and 6 p.m. the severity of accidents, judged on the basis of death and injury rates, was considerably greater during the 'night' hours, as can be seen from the following table. Both deaths and injuries, expressed as a proportion of accidents occurring, were significantly higher during each two-hour 'night' period than for any two-hour period between 6 a.m. and 6 p.m.

**Accidents and Casualties: Time of Day, Fatality and Injury Rates
South Australia, 1972**

Time of Occurrence		Accidents Occurring	Persons Killed	Persons Injured	Persons Killed Per 100 Accidents Occurring	Persons Injured Per 100 Accidents Occurring
After:	Until:					
Midnight	2 a.m.	1,478	30	696	2.0	47
2 a.m.	4 a.m.	443	18	256	4.1	58
4 a.m.	6 a.m.	222	3	96	1.4	43
6 a.m.	8 a.m.	2,078	16	620	0.8	30
8 a.m.	10 a.m.	3,367	16	921	0.5	27
10 a.m.	12 noon	3,256	19	892	0.6	27
12 noon	2 p.m.	3,219	23	965	0.7	30
2 p.m.	4 p.m.	3,952	30	1,246	0.8	32
4 p.m.	6 p.m.	7,362	43	2,117	0.6	29
6 p.m.	8 p.m.	3,939	47	1,321	1.2	34
8 p.m.	10 p.m.	2,342	33	886	1.4	38
10 p.m.	Midnight	2,294	34	981	1.5	43
Total		33,952	312	10,997	0.9	32

The following table shows the nature of accidents which occurred in 1972.

Road Traffic Accidents: Nature, South Australia, 1972

Nature of Accidents	Total Accidents Reported	Accidents Involving Casualties	Persons Killed	Persons Injured
Collisions between vehicles (a):				
Head on	625	271	34	531
Rear end	8,439	1,283	11	1,684
Right angles	11,042	2,666	78	3,828
Other	4,254	569	11	725
Vehicles:				
Overturning or leaving road (b)	1,620	870	39	1,231
Colliding with;				
Fixed object	3,542	1,168	67	1,638
Parked vehicle	3,030	276	5	333
Pedestrian	906	905	65	905
Other	395	54	1	64
Passenger accidents	41	41	1	41
Other	58	13	—	17
Total	33,952	8,116	312	10,997

(a) 'Vehicles' includes motor vehicles, motor cycles, pedal cycles, trains, trams, etc.

(b) Vehicles leaving road and then colliding are shown in the four categories below.

Collisions between vehicles accounted for 72 per cent of all accidents and 43 per cent of deaths, while vehicles overturning or leaving the road and vehicles colliding with pedestrians accounted for 5 per cent and 3 per cent of all accidents respectively, and 12 per cent and 21 per cent of deaths.

Details concerning use or non-use of seat belts by drivers involved in accidents in 1972, are shown in the following table. Information concerning the use or non-use of seat belts was recorded for 48 passengers killed while occupying the left hand front seat of a vehicle; 22 of these were not wearing seat belts.

**Road Traffic Accidents: Seat Belt Usage of Motor Vehicle Drivers and Passengers,
South Australia, 1972**

Seat Belt Details	Drivers (a)			Passengers (b)	
	Killed	Injured	Not Injured	Killed	Injured
Seat belts fitted:					
Reported as worn	25	1,398	23,145	14	498
Reported as not worn	26	350	2,564	13	172
Seat belts not fitted.....	37	982	9,397	9	427
Information not available	32	1,519	18,274	12	1,055
Total	120	4,249	53,380	48	2,152

(a) Any person occupying the driver's seat in a parked vehicle is excluded.

(b) Refers to passengers in front seat, left side. Excludes front seat occupants of parked vehicles.

The table on page 521 shows the age group and sex of persons holding drivers licences and permits at 30 June 1972 and involvements in accidents during 1972 of drivers and riders within the same classifications. In this table figures for involvements relate to accidents occurring in South Australia whereas licence and permit holders are those holding licences etc. issued in South Australia, and the licences on issue at 30 June are only an approximation of the average for the year.

It should be noted in particular that these figures do not measure exposure to risk: for example they take no account of miles driven, times of day into which driving may be concentrated or traffic conditions during those times.

The following additional limitations should be observed when interpreting the figures:

- (i) All figures include permit holders; the accident involvement of permit holders, who are permitted to drive a vehicle only when accompanied by a fully licensed driver, appears, from an examination of the relevant data, to be significantly lower than that of fully licensed drivers. At 30 June 1972 there were 12,134 permit holders; of these 4,039 or approximately one-third were aged 16 years and 8,314 or just over two-thirds of the total were aged 20 years or less: thus if permit holders and their involvements in accidents were excluded from the following table, it could be expected that the involvement rates in the lower age groups would be higher than those shown.
- (ii) The number of involvements with ages not stated is high; and their age distribution, if known, might be different from that of known cases.

Road Traffic Accidents: Age and Sex of Licensed Drivers and of Drivers and Riders Involved in Accidents, South Australia^(a)

1972

Age (years)	Licensed Drivers, Riders and Permit Holders at 30 June 1972		Accident Involvement of Drivers and Riders (b)		Accident Involvement Rate per 100 Licensed Drivers and Riders	
	Males	Females	Males	Females	Males	Females
Under 20	33,990	19,439	8,111	1,334	23.9	6.9
20-24	49,273	32,974	9,322	1,843	18.9	5.6
25-29	43,747	31,028	5,628	1,281	12.9	4.1
30-34	34,997	24,047	3,935	1,078	11.2	4.5
35-39	32,101	20,399	3,333	869	10.4	4.3
40-44	34,418	20,105	3,457	756	10.0	3.8
45-49	34,775	19,501	3,231	777	9.3	4.0
50-54	29,375	15,851	2,743	553	9.3	3.5
55-59	25,374	12,350	2,152	459	8.5	3.7
60-64	19,418	8,482	1,504	285	7.7	3.4
65-69	12,772	4,683	799	158	6.3	3.4
70-74	6,767	2,129	430	96	6.4	4.5
75-79	3,330	895	189	39	5.7	4.4
80 and over	1,534	242	101	12	6.6	5.0
Not stated	—	—	7,342	1,417	..	..
Total	361,871	212,125	52,277	10,957	14.4	5.2

(a) Includes both licensed riders and permit holders.

(b) Drivers and riders involved in more than one accident during the year are included once for each accident.

SHIPPING

Control of Shipping

The Commonwealth Parliament is empowered under the Commonwealth Constitution to make laws in respect of trade and commerce with other countries and among the States.

Navigation and shipping are regulated under the *Commonwealth Navigation Act 1912-1970* and the provisions of the Act apply to ships registered in Australia (except those engaged solely in the domestic trade of any one State) and other British ships whose first port of clearance and whose port of destination are within the Commonwealth. Other shipping Acts under the trade and commerce power of the Commonwealth are the *Sea-Carriage of Goods Act 1924-1961*, the *Seamen's Compensation Act 1911-1971*, the *Seamen's War Pensions and Allowance Act 1940-1972*, the *Australian Coastal Shipping Commission Act 1966-1969*, the *Australian Coastal Shipping Agreement Act 1956* and the *Stevedoring Industry Act 1956-1971*.

Shipping in South Australia is controlled by the *Commonwealth Navigation Act 1912-1972* and, where this does not apply, by the *Harbors Act, 1936-1971* and the *Marine Act, 1936-1970*. Both of these State Acts are administered by the Department of Marine and Harbors.

Registration of Ships

Registration of ships in Australia is in accordance with the Merchant Shipping Act 1894 of the Imperial Parliament, under sections which apply to the United Kingdom and all British dominions. Registration is not compulsory for vessels of less than 15 net tons engaged in river or coastal trade or for larger vessels not engaged in trade. Yachts and small trading vessels may be registered at the request of the owners as registration facilitates the sale or mortgage of these vessels. An annual review of the register is carried out but some vessels, whose present ownership or use cannot be traced, are retained on the register in the absence of any positive justification for their removal. The following table shows the number of vessels on the South Australian Register at 31 December 1972.

**Shipping, Vessels on South Australian Register
At 31 December 1972**

Net Tonnage	Steam and Motor			Sailing (including Fitted with Auxiliary Power)			Barges, Hulks, Dredges, etc., not Self-Propelled		
	Vessels	Gross Tonnage	Net Tonnage	Vessels	Gross Tonnage	Net Tonnage	Vessels	Gross Tonnage	Net Tonnage
Under 50	57	3,445	1,078	83	1,554	1,209	—	—	—
50-99	19	2,156	1,332	9	1,079	728	—	—	—
100-199	3	716	556	2	679	309	1	179	179
200-499	1	350	234	—	—	—	—	—	—
500-999	2	4,237	1,543	—	—	—	—	—	—
1,000-2,999	—	—	—	—	—	—	—	—	—
3,000 and over ...	3	21,961	13,253	—	—	—	—	—	—
Total ...	85	32,865	17,996	94	3,312	2,246	1	179	179

Four different measures of tonnage (gross, net, displacement, or deadweight) may be applied to a vessel. Gross tonnage is the total enclosed cubic capacity of the ship on a basis of 100 cubic feet per ton; net tonnage is the cubic capacity available for cargo in terms of 100 cubic feet per ton; displacement tonnage is the weight of water displaced by a ship; deadweight tonnage is the total weight in tons of fuel, water, stores and cargo that a ship can carry. Passenger ships are commonly rated by the gross tonnage, cargo ships by their net tonnage, warships by their displacement tonnage, and oil tankers by their deadweight tonnage.

Shipping Search and Rescue

The Shipping Search and Rescue organisation (SAR), administered by the Department of Transport co-ordinates the marine search and rescue operations for which the Commonwealth is responsible. The SAR also co-operates with the appropriate authorities in other marine emergencies.

Commonwealth—State Division of Responsibility

The Commonwealth is responsible for the co-ordination of marine search and rescue operations for all classes of ships other than naval vessels and those for which the States are responsible.

Each State is responsible for the co-ordination of marine search and rescue operations within the limit of its own ports for all classes of ships other than naval vessels. The States are also responsible for all pleasure craft and fishing vessels. In South Australia the authority for search and rescue is the South Australian Police.

Operations

The Marine Operations Centre (MOC) of the Department of Transport is located in Canberra. Regional operations centres have been established in Brisbane, Sydney, Melbourne, Adelaide and Perth. These centres operate as subsidiaries of the MOC but may act as the MOC if the MOC is unable to be used.

Where there is any doubt regarding the type or location of a vessel in need of assistance or regarding the capability of facilities, the authority that first becomes aware of the emergency initiates SAR action and is responsible for the operation until satisfactory arrangements can be made for the responsible authority to assume control of operations.

The Commonwealth and State authorities make available to each other any assistance or facilities, including personnel, necessary for the successful completion of a search.

All urgency and distress messages, and other messages concerning marine SAR operations received by a coastal radio station maintained by the Overseas Telecommunications Commission are passed immediately to the Marine Operations Centre, Canberra which originates all outward messages that are transmitted concerning SAR operations. In South Australia the coastal radio station, termed Radio Adelaide, is located at McLaren Vale.

There are twelve limited coast radio stations in South Australia located at all the principal outports and fishing ports. Messages concerning marine SAR operations in respect of pleasure craft or fishing vessels received by limited coast radio stations or members of the public are passed to the S.A. Police. The Police may use limited coast radio, commercial broadcast stations or request the MOC to arrange for the use of the coast radio facilities.

Shipping Arrivals at South Australian Ports

Shipping figures are based on returns rendered to the Collector of Customs by shipping companies, or their agents, in respect of trading vessels exceeding 200 net tons: each arrival at and departure from a South Australian port is recorded. In the following tables the column headings, coastal and overseas, indicate the classification of vessels regardless of the division of trade on which the vessels were engaged at any particular time. The next two tables show arrivals of coastal and overseas vessels at individual Customs ports and at all ports in South Australia respectively.

Shipping: Vessels Entered at Customs Ports, South Australia, 1971-72

Port	Coastal				Overseas		Total	
	Intrastate		Interstate		Number	Net Tonnage	Number	Net Tonnage
	Number	Net Tonnage	Number	Net Tonnage				
		'000		'000		'000		'000
Adrossan	43	127	21	68	20	115	84	310
Ballast Head	13	24	18	45	1	2	32	71
Edinburgh	—	—	—	—	19	139	19	139
Port Adelaide (a) ..	281	237	220	620	659	3,520	1,160	4,378
Port Augusta	—	—	—	—	12	41	12	41
Port Lincoln	29	118	17	77	64	473	110	668
Port Pirie	18	84	54	180	111	636	183	899
Port Stanvac	14	79	48	544	41	1,115	103	1,738
Rapid Bay	20	74	11	49	—	—	31	124
Stenhouse Bay	11	15	22	30	10	17	43	63
Thevenard	20	49	20	33	64	243	104	326
Wallaroo	—	—	1	1	28	179	29	179
Whyalla	36	162	200	2,119	40	284	276	2,565

(a) Inner and outer harbour.

Shipping, Vessels Entered at South Australian Ports

Year	Coastal				Overseas		Total	
	Intrastate		Interstate		Number	Net Tonnage	Number	Net Tonnage
	Number	Net Tonnage	Number	Net Tonnage				
		'000		'000		'000		'000
1967-68	927	1,450	830	3,277	1,239	7,415	2,996	12,141
1968-69	984	1,451	775	3,284	1,271	8,009	3,030	12,745
1969-70	1,015	1,372	695	3,532	1,322	8,680	3,032	13,585
1970-71	857	1,446	612	3,998	1,198	7,306	2,667	12,749
1971-72	744	1,181	632	3,767	1,069	6,765	2,445	11,714

One of the principal factors underlying the decrease in numbers of ships engaged in trade between ports in South Australia has been the development, at major ports since the early 1950s, of bulk handling facilities for grain. The general trend has been toward the use of fewer ships of greater net tonnage.

The next table shows arrivals of vessels exceeding 200 net tons at selected customs ports only, according to country of registration of the vessels.

Shipping: Country of Registration, Vessels Entered at Selected Customs Ports
South Australia

Customs Port	Country of Registration	Vessels		Net Tonnage	
		1970-71	1971-72	1970-71	1971-72
Port Adelaide .	Australia	495	476	882,142	879,365
	Germany, Federal Republic .	43	11	193,939	40,240
	Greece	37	42	240,711	298,714
	India	27	20	131,881	94,528
	Italy	22	21	231,578	218,512
	Japan	24	37	84,991	130,121
	Liberia	34	41	231,796	269,299
	Netherlands	28	41	124,808	178,282
	New Zealand	38	48	70,309	90,969
	Norway	50	47	318,703	329,849
	Sweden	88	53	359,134	210,584
	United Kingdom	197	171	1,176,890	946,105
	Other countries	121	152	570,046	691,281
Total		1,204	1,160	4,616,928	4,377,849
Ardrossan	Australia	83	64	203,157	194,900
	Other countries	25	20	153,410	115,338
	Total	108	84	356,567	310,238
Port Lincoln ..	Australia	110	49	297,805	228,543
	Greece	17	11	110,487	90,711
	Liberia	14	7	102,211	56,716
	Netherlands	14	7	92,741	44,314
	Taiwan	—	6	—	50,454
	United Kingdom	10	11	55,595	76,599
	Other countries	25	19	122,250	120,491
Total	190	110	781,089	667,828	
Port Pirie	Australia	72	76	267,237	308,218
	Greece	18	5	102,512	23,030
	India	15	11	72,805	53,376
	Liberia	8	6	53,362	46,801
	Netherlands	7	12	31,368	65,360
	United Kingdom	48	35	275,442	239,770
	Other countries	45	38	201,922	162,941
Total	213	183	1,004,648	899,496	

**Shipping: Country of Registration, Vessels Entered at Selected Customs Ports
South Australia (continued)**

Customs Port	Country of Registration	Vessels		Net Tonnage	
		1970-71	1971-72	1970-71	1971-72
Port Stanvac ..	Australia	66	68	600,763	689,845
	Liberia	9	4	316,743	129,460
	United Kingdom	12	12	321,916	350,571
	Other countries	22	19	515,626	567,830
	Total	109	103	1,755,048	1,737,706
Whyalla.....	Australia	219	212	2,272,997	1,838,997
	Japan	16	11	148,814	96,620
	United Kingdom	23	28	401,349	466,803
	Other countries	31	25	197,465	162,094
	Total	289	276	3,020,625	2,564,514

Cargo Handled at Major Ports

The South Australian Department of Marine and Harbors records details of cargo handled at major ports in this State and the following table shows details for each of the last five years.

Cargo Handled: Major Ports, South Australia

Port	1967-68	1968-69	1969-70	1970-71	1971-72
	'000 tons				
Adrossan	363	539	488	594	557
Ballast Head	108	133	154	159	170
Kingscote	153	137	146	131	138
Klein Point	325	359	463	396	552
Port Adelaide	3,692	3,671	3,695	3,287	3,363
Port Augusta	43	43	45	47	32
Port Giles	—	—	—	139	124
Port Lincoln	588	630	871	752	716
Port Pirie	1,098	1,134	1,416	1,397	1,341
Port Stanvac	2,860	2,684	2,682	2,912	2,766
Proper Bay	388	470	489	450	339
Rapid Bay	318	259	288	294	197
Stenhouse Bay	198	206	177	166	152
Thevenard	408	408	477	535	691
Wallaroo	148	164	351	361	274
Whyalla	5,954	6,899	8,347	8,224	6,757
Other ports	81	42	41	38	39
Total	16,725	17,778	20,130	19,882	18,208

Overseas Shipping Cargo

Overseas shipping cargo statistics are compiled from returns submitted by shipping companies, or their representatives, to Customs Houses at each port in South Australia. A return is required for each movement of a vessel into and out of a port except for naval vessels, yachts and other craft used for pleasure, foreign fishing vessels that neither load nor discharge cargo and vessels not exceeding 200 net tons. Cargo is recorded on returns in terms of either units of weight or units of measurement (a ton measurement is a unit of 40 cubic feet) depending on the basis on which freight is charged. The statistics show separate figures for cargo recorded in tons weight and cargo recorded in tons measurement. The aggregates for weight and measure cargo are not added to a figure for total

cargo because they are unlike quantities, and comparisons of total cargo between ports, trade routes or periods of time could be affected by variations in the cargo mix and in the basis on which freight is charged. The following figures show, for the years 1970-71 and 1971-72, particulars of cargo loaded in South Australia for discharge overseas, and of cargo discharged in South Australia from overseas, classified according to major trade areas.

Shipping: Cargo Loaded in South Australia, Trade Area of Destination

Cargo Loaded for Ports in—	1970-71		1971-72	
	Tons Weight	Tons Measure	Tons Weight	Tons Measure
North America and Hawaiian Islands:				
Northern Area;				
U.S.A.	78,487	1,293	49,375	133
Canada	5,301	3,248	7,077	49
Central America	51	5	—	—
Bermuda and Carribbean Area ..	107	33	—	5,896
South America	142,366	—	86,558	—
Europe (excluding U.S.S.R.):				
Northwestern, Central and Baltic;				
United Kingdom	333,921	523	327,624	63
Other	234,466	7,670	408,935	1,119
Southern Area	11,598	3,283	61,113	1,756
U.S.S.R. (in Europe and Asia)	14,995	1,307	55,678	1,203
Africa	456,522	14,903	542,334	8,493
Asia (excluding U.S.S.R.)	3,352,585	35,991	2,712,217	51,390
Papua and New Guinea, New Zealand and Pacific Islands	287,918	42,441	243,094	70,184
Indian Ocean Islands and Antarctica	—	10	—	—
Total cargo loaded...	4,918,317	110,707	4,494,005	140,286

Shipping: Cargo Discharged in South Australia, Trade Area of Origin

Cargo Discharged from Ports in—	1970-71		1971-72	
	Tons Weight	Tons Measure	Tons Weight	Tons Measure
North America and Hawaiian Islands:				
Northern Area;				
U.S.A.	36,810	35,944	23,636	20,261
Canada	44,484	60,268	54,704	55,007
Central America	—	—	—	—
Bermuda and Carribbean Area ..	—	—	1,750	—
South America	800	—	—	—
Europe (excluding U.S.S.R.):				
Northwestern, Central and Baltic;				
United Kingdom	8,064	31,066	5,219	12,402
Other	16,297	27,583	6,961	18,921
Southern Area	2,308	10,515	2,324	5,623
U.S.S.R. (in Europe and Asia)	—	—	1	95
Africa	2,355	4,084	5,835	5,899
Asia (excluding U.S.S.R.)	2,007,260	74,409	1,747,688	80,722
Papua and New Guinea, New Zealand and Pacific Islands	198,592	7,050	108,365	10,934
Indian Ocean Islands and Antarctica	82,389	—	88,755	—
Total cargo discharged....	2,399,359	250,919	2,045,238	209,864

Passenger Movement by Sea

Statistics of passengers disembarking, embarking and passing through Australian ports are compiled according to type of passenger—namely overseas, direct transit, interstate or cruise. 'Overseas' passengers are defined as persons travelling to or from overseas destinations and who embark or disembark in Australia; 'direct transit' as persons on vessels calling at Australian ports and who have embarked at an overseas port for an overseas destination; 'interstate' as persons travelling by sea from one Australian State to another, or travelling from and to the same port or a port in the same State *via* other States; and 'cruise' as persons on an overseas journey which begins and ends in Australia, does not exceed thirty days, is confined to specific ports in the South-West Pacific area and has been classified as a cruise to enable certain documentation requirements to be waived. Information about passengers is obtained from ships' manifests, passenger cards completed by passengers, and the Departments of Transport and Customs and Excise. The following table shows numbers and types of passengers who disembarked, embarked and passed through South Australian ports during the five years 1967 to 1971.

Shipping: Passenger Movement by Sea, South Australian Ports^(a)

Year	Type of Passenger					
	Overseas			Total (including Other (b))		
	Disembarked	Embarked	Passed Through	Disembarked	Embarked	Passed Through
1967.....	6,048	7,442	41,979	7,996	8,714	53,018
1968.....	6,004	6,955	42,601	7,881	8,153	50,888
1969.....	5,799	7,075	45,901	8,047	8,515	54,677
1970.....	6,232	5,617	42,379	7,875	6,804	49,990
1971.....	5,127	4,825	32,500	6,547	6,206	40,280

(a) Almost exclusively Port Adelaide. (b) Interstate, direct transit and cruise passengers.

Distances to Overseas Ports

Distances in nautical miles from Port Adelaide to principal overseas ports are shown in the following table. Distances by sea from Port Adelaide to the ports of other Australian capital cities are given on page 492.

Distances from Port Adelaide to Principal Overseas Ports

Port Adelaide to:	Nautical Miles	Port Adelaide to:	Nautical Miles
<i>Africa;</i>		<i>New Zealand;</i>	
Cape Town	5,603	Auckland	2,035
<i>Asia;</i>		Wellington	1,880
Colombo	4,310	<i>North America;</i>	
Djakarta	3,047	Baltimore (b)	10,291
Hong Kong	4,782	Montreal (b)	11,538
Singapore	3,515	New York (b)	10,367
Yokohama	5,281	Panama	8,307
<i>Europe (a);</i>		San Francisco	7,372
Liverpool	11,679	Vancouver	7,752
London	11,720	<i>South America;</i>	
Marseilles	11,417	Buenos Aires (c)	7,769
Naples.....	11,697	Rio de Janeiro (c)	8,586
		Valparaiso	6,670

(a) *Via* Cape Town. (b) *Via* Panama. (c) *Via* Cape Horn.

CIVIL AVIATION

Control of Civil Aviation

In Australia, civil aviation is subject to the Commonwealth *Air Navigation Act 1920-1971* and to regulations made under the Act. The South Australian *Air Navigation Act, 1937* provided for 'the application of Commonwealth Air Navigation Regulations to, and in relation to, air navigation within the State of South Australia'. The regulations under the Commonwealth Act were drawn up to give effect to the 1944 Chicago convention on Civil Aviation. Regulations based on the resolutions of the Paris convention in 1919 were no longer adequate in the years after the 1939-45 War because of the immense wartime development of aerial transport.

The present regulations, administered by the Commonwealth Department of Civil Aviation, cover the registration of aircraft and the issue of certificates of airworthiness; the licensing of aircraft services, aircraft operating crews, aerodromes, and flying training schools; and the rules of the air. The Department is responsible for the operation of Air Traffic Control and has assumed responsibility for co-ordination of Search and Rescue operations.

Under the *Australian National Airlines Act 1945-1970* the Australian National Airlines Commission was established and empowered to operate Commonwealth-owned air services. The Commission trades under the name Trans-Australia Airlines.

The *Civil Aviation Agreement Act 1952* ratified an agreement between the Commonwealth and Australian National Airways Pty Ltd to ensure the efficient and economical operation of air services within Australia by eliminating wasteful competition between that company and Trans-Australia Airlines and to rationalise the services of both airlines. The *Civil Aviation Agreement Act 1957* was enacted to extend the privileges and obligations of the 1952 Act to the new proprietor of the major private airline after the purchase of Australian National Airways Pty Ltd by Ansett Transport Industries Ltd. The Commonwealth passed the *Airlines Equipment Act* in 1958 and this provided for further financial assistance to both airlines for the purchase of new aircraft and empowered the Commonwealth to limit the aircraft capacity being provided on competitive routes by these two operators.

The Airlines Agreement approved by the *Airlines Agreement Act 1961* consolidated all the arrangements and principles developed by the Government over the past decade for maintaining and securing the competitive airline system and made important arrangements affecting the introduction of new aircraft on Australian domestic routes. The *Civil Aviation Agreement Act 1952-1957*, amended by the 1961 Act, is now cited as the *Airlines Agreement Act 1952-1961*.

For reference to international agreements on civil aviation see the *Official Year Book of the Commonwealth of Australia* No. 48, and for references to international organisations see *Year Book* No. 37.

Aircraft on Register

The total number of aircraft listed at 30 June 1972 on the Australian register, which includes aircraft based in the Territory of Papua and New Guinea, was 3,802, an increase from 3,794 registered at June 1971. 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				
	1968	1969	1970	1971	1972
Private	136	139	151	163	178
Charter	93	103	119	124	125
Regular public transport (a)	25	18	14	14	14
Other (b)	86	84	92	93	99
Total	340	344	376	394	416

(a) Excludes major airlines servicing interstate routes.

(b) Includes agricultural work, ambulance, survey and pilot training functions.

General Air Services

Adelaide has no direct links by air with overseas: these are provided through Sydney, Melbourne and Perth. However, it is on the scheduled flights of regular interstate services from Sydney, Melbourne, Perth and Darwin. The table below shows adult passenger single air fares, in force at 4 March 1973, between Adelaide and selected Australian cities.

Passenger Air Fares, Adelaide to Selected Australian Cities

Between Adelaide and:	Adult, Single Fare (a)	
	Economy Class	First Class
	\$	\$
Alice Springs	53.80	65.40
Brisbane (b)	81.40	94.70
Broken Hill	—	21.10
Canberra (b)	49.60	58.30
Darwin	114.00	137.60
Hobart (c)	51.00	59.80
Melbourne	25.50	29.90
Perth	77.00	95.50
Sydney	52.80	59.60

(a) Fares at reduced rates are applicable to children under 15 years of age, to students and to groups of fifteen persons or more travelling together.

(b) Via Melbourne or Sydney. (c) Via Melbourne.

Adelaide is also the terminus for intrastate services. Regular connections to Ceduna, Cleve, Kingscote, Leigh Creek, Minnipa, Mount Gambier, Oodnadatta, Port Lincoln and Whyalla are provided by major airlines either as local flights or as scheduled stops on interstate flights. Bus ('air coach') services, provided by the airlines, connect many of these places with nearby towns. Since 1966-67, when the Commonwealth Government approved introduction of commuter services in country areas, there has been a significant increase in regular air services between country towns and areas which were either not served by the major airlines or had no direct air service with Adelaide or the nearest major provincial city. Such services usually utilise single or twin engined aircraft and operate to fixed and published time-tables.

The first commuter service in Australia, between Adelaide and opal fields at Coober Pedy, commenced during 1966-67. Later, such services were introduced

between Woomera, Port Augusta, Port Pirie and Adelaide, and between Adelaide and Penneshaw. In December 1970, a similar service was introduced between Adelaide, Wudinna and Streaky Bay and late in 1971 between Adelaide and Andamooka.

Passengers and Freight Carried

The number of passengers carried on civil airlines in South Australia has more than doubled on both interstate and intrastate services during the last ten years while tonnage of freight has increased by more than 50 per cent. Details of movements at principal airports for the last five years are shown in the following table. A full list of Government and licensed aerodromes in South Australia appears on page 345.

Principal Airports, South Australia
Passengers, Freight and Aircraft Movements

Airport	1967-68	1968-69	1969-70	1970-71	1971-72
	PASSENGERS (a)				
Adelaide (b) (c)	871,309	937,016	1,022,085	1,023,536	1,050,104
Kingscote	44,316	45,993	50,878	51,135	47,993
Port Lincoln	40,423	40,514	43,816	42,429	46,648
Woomera	32,459	29,269	25,701	21,476	17,719
Whyalla	32,295	29,210	28,392	30,204	31,063
Mount Gambier	19,315	18,800	20,479	22,086	21,890
	FREIGHT—SHORT TONS (d)				
Adelaide (b) (c)	14,560	15,449	16,673	15,882	16,113
Kingscote	188	185	185	160	142
Port Lincoln	180	166	180	147	136
Woomera	374	375	317	257	232
Whyalla	209	143	126	132	124
Mount Gambier	97	97	102	105	123
	AIRCRAFT MOVEMENTS (e)				
Adelaide (c)	19,948	20,502	22,081	21,918	21,780
Kingscote	1,396	1,424	1,495	1,584	1,455
Port Lincoln	1,592	1,467	1,493	1,432	1,382
Woomera	1,103	1,028	907	726	608
Whyalla	1,184	1,197	1,133	1,139	1,106
Mount Gambier	1,244	1,238	1,243	1,247	1,251

(a) Total of embarkations and disembarkations. (b) Figures of passengers and freight movements are overstated to the extent of through traffic transferring between flights. (c) Includes Edinburgh Airfield. (d) Total of freight loaded and unloaded. (e) Total of arrivals and departures.

Aerial Medical Services

Aerial medical services are carried out in the outback areas of Australia. The Royal Flying Doctor Service of Australia (S.A. Section) Inc. operates control stations at Alice Springs and Port Augusta. Early in 1968 the Flying Doctor Service took over the aerial services of the Bush Church Aid Society (S.A. Branch). These services, previously operated from Ceduna, are now maintained from Port Augusta.

Civil Aviation Accidents

In South Australia, during the ten year period from 1962-63 to 1971-72, there were thirty-two civil aviation accidents involving casualties and these resulted in the death of forty-five persons and injury to eighteen. These figures exclude paratists killed in contact with earth after an uninterrupted fall.

Seven of the accidents occurred in gliding, fourteen in private flying, three in aerial agriculture, four in training and four in charter operations. Thirty-four of the deaths occurred in private flying, six in charter work, three in gliding and one in each of aerial agriculture and training operations. There was no accident involving casualties in regular public transport operations.

11.2 COMMUNICATION

The Postmaster-General's Department works in close co-operation with three important agencies: the Overseas Telecommunications Commission, which is responsible for establishing, maintaining, and operating public cable and radio telegraph services with overseas countries and ships at sea; the Australian Broadcasting Control Board, which ensures the provision of services by broadcasting stations and television stations in accordance with plans prepared by the Board; and the Australian Broadcasting Commission, which controls the activities of the National Broadcasting Service and the National Television Service.

POSTAL, TELEGRAPH AND TELEPHONE SERVICES

The postal, telegraph and telephone services in Australia are under the control of the Postmaster-General pursuant to the provisions of the *Post and Telegraph Act* 1901-1971. The Director-General of Posts and Telegraphs controls the Commonwealth Department under the Postmaster-General, while the principal officer in each State is the Director of Posts and Telegraphs. A detailed history of Posts, Telegraphs and Telephones was included on pages 469-70 of the *South Australian Year Book* 1967.

As a result of Federation all the former colonial post and telegraph services were taken over by the Commonwealth on 1 March 1901. In 1901 there were 713 post offices operating in South Australia and the Northern Territory, with 1,831 telephone services connected. At 30 June 1972 there were 826 post offices and 261,608 telephone services in operation.

Details of post offices and the number of persons employed in postal services in South Australia for the years 1967-68 to 1971-72 are given in the following tables. All tables in this section include details for the Northern Territory as separate figures are not available.

Post Offices: Number
South Australia and Northern Territory

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Post Offices:					
Official	173	177	177	175	175
Non-official	738	720	711	685	651
Telephone Offices	95	86	84	83	83
Total	1,006	983	972	943	909

Non-official post offices are conducted by persons who are not members of the Commonwealth Public Service and who receive an allowance based on business transacted—in many instances this type of business is conducted in conjunction with some other business activity. Telephone offices provide facilities for making trunk line and local telephone calls and for lodging telegrams but do not transact any other postal services.

Post Offices: Employment
South Australia and Northern Territory^(a)

Persons Employed	1967-68	1968-69	1969-70	1970-71	1971-72
Direct employees:					
Permanent officers	7,861	8,147	8,326	8,582	8,831
Temporary and exempt employees	2,243	2,087	2,159	2,013	2,007
Total	10,104	10,234	10,485	10,595	10,838
Other:					
Non-official and semi-official postmasters and post mistresses	739	721	709	688	654
Persons exclusive of postmasters employed at non-official offices	212	205	205	214	202
Telephone office keepers	94	86	83	83	71
Mail contractors	330	311	309	257	256
Total	1,375	1,323	1,306	1,242	1,183
Total all employees.	11,479	11,557	11,791	11,837	12,021

(a) 'Direct Employees' are full-time or part-time staff directly under the control of the Postmaster-General's Department while 'Other' employees include staff engaged, either full-time or part-time, under contract or in return for payment appropriate to work performed.

Receipts and Payments

The Post Office maintains a system of financial and management accounts, known as its commercial accounts, which are quite distinct from the cash accounts maintained to meet Treasury requirements. The cash accounts record actual receipts and payments and take no account of outstanding liabilities or of amounts due but not received at the end of the financial year.

Until the end of financial year 1967-68 the cash accounts were used to record the cash receipts which were paid into the Commonwealth Public Account and the cash payments made from funds appropriated by the Commonwealth Parliament for Post Office purposes; each issue of the *South Australian Year Book* before 1970 contained details covering several years.

Changed financial arrangements were introduced from 1 July 1968 following an amendment of the Post and Telegraph Act. The cash accounts now contain details of cash receipts paid into, and cash payments made from, the Post Office Trust Account; and details shown below for 1968-69 to 1971-72 are not comparable, either in total content or in dissection to various categories, with figures for earlier years.

Post Office Trust Account: Cash Receipts
South Australia and Northern Territory

Year	Postal	Telephone	Telegraph	Proceeds of Sales	Recoverable Works	International Services	Total
				\$'000			
1968-69	13,211	34,523	1,606	444	4,391	149	54,323
1969-70	13,885	38,465	1,918	560	3,922	143	58,892
1970-71	15,847	43,333	1,988	675	4,815	68	66,727
1971-72	18,309	50,820	2,342	738	4,555	233	76,998

Capital expenditures are included below with all other cash payments. Separate details of capital expenditures, for either Post Office purposes or other authorities, are not available.

Post Office Trust Account: Cash Payments
South Australia and Northern Territory

Year	Salaries and Wages	Material	Carriage of Mail by Contractors	Buildings, Sites and Properties	Accommodation Services	Other Administrative Expenses	Total
				\$'000			
1968-69	34,445	16,241	1,255	2,415	1,775	3,337	59,469
1969-70	38,766	15,003	1,261	2,960	2,289	3,515	63,793
1970-71	44,671	18,981	1,340	5,593	2,423	3,766	76,774
1971-72	51,636	19,521	1,293	10,729	2,677	4,308	90,163

Postal Articles Handled

Articles handled by the Postmaster-General's Department in South Australia and Northern Territory during the years 1967-68 to 1971-72 are shown in the following table.

Postal Articles Handled, South Australia and Northern Territory

Year	Letters and Postcards (a)	Newspapers Packets (a)	Parcels (b)	Registered Articles	All Articles
Posted for delivery:			'000		
Within Australia;					
1967-68	168,072	17,739	1,533	766	188,110
1968-69	178,428	17,680	1,501	752	198,361
1969-70	187,570	17,422	1,540	746	207,278
1970-71	194,852	17,123	1,770	754	214,499
1971-72	200,023	18,897	1,738	660	221,317
Beyond Australia;					
1967-68	8,603	1,587	64	62	10,316
1968-69	8,930	1,214	65	62	10,271
1969-70	9,408	1,079	64	68	10,619
1970-71	9,675	1,063	84	85	10,908
1971-72	9,129	690	92	74	9,986
Received from beyond Australia:					
1967-68	5,671	4,530	114	31	10,346
1968-69	5,807	3,412	119	35	9,373
1969-70	7,165	2,255	126	35	9,581
1970-71	5,871	2,202	104	35	8,211
1971-72	6,692	2,293	94	36	9,114

(a) Includes Certified and Special Delivery mail.

(b) Includes registered parcels.

Money Orders and Postal Orders

The value of money orders and postal orders issued in 1944-45 amounted to \$3,128,000 and \$1,801,000 respectively; in 1971-72 the corresponding values were \$12,226,000 and \$8,948,000. Total commission charged on money orders issued in 1971-72 amounted to \$247,000. The fee on postal orders issued in 1971-72 amounted to \$257,000.

The value of money orders and postal orders paid in 1944-45 amounted to \$2,995,000 and \$1,072,000 respectively; in 1971-72 the corresponding values were \$12,023,000 and \$7,614,000.

**Money Orders Issued and Paid
South Australia and Northern Territory**

Year	Money Order Offices	Issued For Payment				Paid, Having Been Issued			
		Within Australia		Beyond Australia		Within Australia		Beyond Australia	
		Number	Value	Number	Value	Number	Value	Number	Value
	Number	'000	\$'000	'000	\$'000	'000	\$'000	'000	\$'000
1967-68 ..	551	1,110 (a)	32,506 (a)	64	471	1,146 (a)	34,539(a)	22	363
1968-69 ..	550	907	20,008	60	513	861	19,404	22	380
1969-70 ..	551	857	16,819	60	547	818	16,056	23	413
1970-71 ..	547	665	14,651	57	612	676	16,530	23	453
1971-72 ..	540	410	12,226	61	716	395	11,473	22	550

(a) Includes official money orders used in bringing to account telephone account collections and War Service Homes repayments. This practice was discontinued towards the end of 1967-68.

**Postal Orders Issued and Paid
South Australia and Northern Territory**

Year	Postal Order Offices	Postal Orders Issued		Postal Orders Paid	
		Number	Value	Number	Value
	Number	'000	\$'000	'000	\$'000
1967-68	901	1,755	3,358	1,176	2,260
1968-69	878	1,914	4,055	1,371	3,140
1969-70	884	1,971	4,617	1,483	3,682
1970-71	877	2,432	7,248	1,808	5,917
1971-72	824	2,518	8,948	1,945	7,614

Telegraph System

Australia's telegraph service, known as TRESS (Teleprinter Reperforator Switching System) was first introduced in South Australia in 1959, before being extended to the other States. This system, using teleprinters and automatic switching apparatus, has eliminated the intermediate handling of telegraph traffic, resulting in greater speed and economy.

Another telegraph service known as TELEX has been available in South Australia since 1957. TELEX subscribers are provided with a teleprinter in their own

premises and may be connected through the teleprinter exchange with other subscribers anywhere in Australia and in a number of overseas countries. At 30 June 1972 there were 1,002 subscribers in South Australia.

The number of telegrams dispatched and received, and some information on the operations of TELEX during the years 1967-68 to 1971-72, are shown below.

Telegraph Services
South Australia and Northern Territory

Year	Telegrams		Teleprinter Exchange	
	Dispatched within Australia	Dispatched beyond Australia	Subscribers	Number of Calls (a)
	'000	'000	Number	'000
1967-68	2,117	117	437	1,107
1968-69	2,141	125	551	1,242
1969-70	2,143	139	707	1,455
1970-71	1,990	149	870	1,790
1971-72	1,912	154	1,002	2,075

(a) Includes official Post Office traffic.

The Post Office picturegram service is used extensively by Adelaide newspapers to send and receive photographs to and from other parts of Australia and overseas for publication within a few hours of being taken. This service is also used by business and professional people to transmit photographs of documents, X-rays, and other matter capable of being photographed.

A recent extension of this service has enabled the format of a daily newspaper to be transmitted from Sydney for printing by facsimile process in Adelaide.

Telephone Services

The Post Office has continued to provide additional subscriber services, more and better trunk line circuits, and has installed automatic telephone exchanges. At 30 June 1972 there were 2,291 trunk line channels and 354 country automatic telephone exchanges in the State. There are 58 automatic exchanges in the Adelaide Telephone District. From 1 October 1971 the normal charges for selected telephone services are as follows:

Installation charge for a new telephone service is \$50. Annual rental charge in Adelaide Metropolitan Area is \$55, or in the case of pensioners \$36.66, paid half-yearly in advance: corresponding rental charges in country centres with population of 10,000 and over are \$37 and \$24.66; and in those with population of less than 10,000, \$27 and \$18.00 respectively.

Private calls between subscribers within a single telephone zone, and between subscribers in adjoining zones, are charged at a 'local call' rate of 4.75 cents per call. The corresponding charge for calls from public telephones is 5 cents. Trunk call rates, which vary according to duration and distances, are charged for calls between non-adjoining telephone zones: lower rates are charged for calls between 6 p.m. and 9 a.m.

A Post Office objective is the establishment of a nationwide subscriber to subscriber direct trunk calling system known as subscriber trunk dialling (STD). The provision of STD facilities at telephone exchanges in South Australia has increased rapidly since its introduction in January 1967 and at December 1972, STD facilities were available to approximately 163,000 subscribers in the Adelaide Telephone District and about 20,000 country subscribers for two-way contact with selected exchanges in New South Wales, Victoria, Queensland, Western Australia and Tasmania. In addition either one-way or two-way direct dialling between a number of other country exchanges and Adelaide was available to approximately 13,000 country subscribers.

Because approximately 60 per cent of trunk calls originate in country areas, directed either to the capital city or to other country exchanges, great benefit will accrue when all country exchanges are linked with the STD system. However, many years will elapse before the majority of exchanges can be connected because of the amount of work and complex equipment involved.

Telephone Services South Australia and Northern Territory

At 30 June	Telephone Exchanges	Telephone Services						Trunk Line Channels in Service
		Ordinary Exchange	Duplex	Party Line	Private Branch Exchange	Public Telephones	Total	
1968.....	731	187,634	334	1,382	20,718	2,774	212,842	5,258
1969.....	721	198,177	16	1,278	21,828	2,875	224,174	5,852
1970.....	711	211,906	2	1,249	23,350	2,945	239,452	6,293
1971.....	706	218,113	2	1,172	29,075	2,968	251,330	(a) 2,053
1972.....	698	225,325	2	1,097	32,168	3,016	261,608	(a) 2,291

(a) Excludes trunk junctions.

Metropolitan services are all operated through automatic exchanges, whereas at 30 June 1972, 74,514 country services were automatic and 19,731 services were manually connected. Metropolitan services totalled approximately 167,000 and of these 111,000 were residence services. In the country, business phone services accounted for the large share (about 55 per cent) of services.

RADIO AND TELEVISION SERVICES

Under the Broadcasting and Television Act radio and television receivers must be licensed. A person who owns both a radio and a television receiver at the one address is issued with a combined receiving licence while a person owning only one type of receiver is issued with a radio listeners' licence or a television viewers' licence.

The number of radio listeners' licences, television viewers' licences and combined receiving licences in force at 30 June 1968 to 1972 and revenue from these licences during the years 1967-68 to 1971-72 are given in the following table.

**Broadcast Listeners' and Television Viewers' Licences
South Australia and Northern Territory**

Item	Unit	1967-68	1968-69	1969-70	1970-71	1971-72
Listeners' Licences(a)	Number (b)	74,200	72,882	69,598	69,101	66,792
Viewers' Licences (a)	Number (b)	52,744	55,425	59,438	61,868	69,537
Combined Licences	Number (b)	215,851	224,995	232,921	241,384	248,820
Revenue (a)	\$'000	4,219	4,930	5,238	5,586	7,057

(a) Includes hirers' and short-term hirers' licences. (b) At 30 June.

Details of radio and television stations licensed in South Australia are shown in the following table.

**Radio and Television Stations, South Australia
At 30 June(a)**

Radio Communication Stations	1968	1969	1970	1971	1972
Broadcasting:					
National	8	8	8	9	10
Commercial	8	8	8	8	8
Television:					
National	3	3	3	4	4
Commercial	5	5	5	5	5
Transmitting and receiving:					
Fixed;					
Aeronautical	5	5	5	5	—
Outpost	156	160	164	173	168
Other	81	115	142	174	151
Land;					
Aeronautical	21	21	25	28	29
Base stations for mobile services	693	812	902	1,027	1,133
Coast	21	21	21	21	25
Experimental	61	63	67	62	69
Mobile	9,229	10,119	11,195	12,508	13,773
Space services	—	—	—	—	1
Amateur	734	740	752	752	740
Receiving only:					
Fixed	—	3	9	14	17
Total stations	11,025	12,083	13,306	14,790	16,133

(a) Excludes stations in Northern Territory.

NOTE: A fixed station is established at a fixed location for the exchange of radio messages with other fixed stations whereas a land station is established at a fixed location for the exchange of radio messages with mobile stations. An outpost station is established in an outback area and communicates with control stations operated by such organisations as the Royal Flying Doctor Service. A space service is a radiocommunication service between earth stations and space stations, between space stations, or between earth stations when signals are retransmitted by space stations, or transmitted by reflection from objects in space.

Further information on radio and television services is contained in Part 6.4 Culture and Recreation.

OVERSEAS TELECOMMUNICATIONS SERVICES

The Overseas Telecommunications Commission (Australia) is the authority responsible for the establishment, maintenance, operation and development of Australia's overseas public telegraph, phototelegraph and telex services by cable and by radio, and the provision, maintenance and development of cable and

radio facilities for the conduct of Australia's overseas telephone services and of the facilities for services with ships at sea. Some of these services are provided in conjunction with the Postmaster-General's Department.

Recent developments have included the establishment of earth stations in Australia to operate in conjunction with a communications satellite system. Earth stations at Carnarvon in Western Australia and at Moree in New South Wales operate through communications satellite INTELSAT II which was launched in January 1967.

In February 1970 Australia's third earth station near Ceduna was opened. This station faces westward to INTELSAT III which is located over the Indian Ocean and can carry all types of communications traffic: subject to establishment of earth stations in relevant countries it provides facilities for direct links with Europe, Africa, India, most of South-East Asia, and the western part of Japan. The first direct broadcast *via* this satellite was received in Australia from the United Kingdom on 20 February 1970.

Details of the overseas telecommunications services and traffic are published in various issues of the *Official Year Book of the Commonwealth of Australia, e.g.* No. 57, 1971, pages 370-2.

PUBLIC FINANCE

12.1 STRUCTURE OF PUBLIC FINANCE

The collection of public revenue and the expenditure of public money in South Australia are the responsibility of four groups of authorities: (i) Commonwealth Government; (ii) State Government; (iii) Semi-government; and (iv) Local government.

The power to raise revenue from taxation is vested in the various governments and authorities by Acts of Parliament. Other revenue comes from the proceeds of the sale of goods and services to the public and to other governments and authorities. A major proportion of the revenue of the State Government, and a smaller proportion of the revenue of local government and some semi-government authorities is derived from grants from other levels of government: grants are made by the Commonwealth to the State Government and by the latter to semi-government and local government bodies. A further source of funds is the loan market: Government securities are issued for loan raisings in Australia and overseas.

Authorisation for expenditure by Commonwealth and State Government departments is given by Appropriation Acts or by Special Acts of their respective Parliaments. Each State semi-government undertaking derives its authority for expenditure from the provisions of the specific Act under which it has been established. The Local Government Act, 1934-1972 contains sections relating to local government expenditure. The following sections of this part provide some details of the financial transactions of the government sector in South Australia. Special attention is given to transactions within the State Government budget, transactions of a number of semi-government authorities, and transactions of all local government authorities. In addition, details of some Commonwealth Government expenditures are included.

Commonwealth Government Transactions

Reference is made to the revenue and expenditure of the Commonwealth Government only to the extent that it affects the finances of the State Government. As indicated in more detail below, not all of the transactions listed relate

directly to the State budget; many of the items are negotiated wholly through State Trust Funds. The transactions which are included represent only a small proportion of total expenditure by the Commonwealth Government within South Australia. A more detailed analysis of Commonwealth Government finance may be obtained from the *Official Year Book of the Commonwealth of Australia*.

State Government Accounts

Statistics relating to the State Government Budget are derived from accounts prepared by the Treasurer each year and included in the Report of the Auditor-General of South Australia. These accounts, which are on a cash basis, cover the Consolidated Revenue Account which in general terms is the current account of the Government, and the Loan Fund through which is handled the receipt and disbursement of some special purpose Commonwealth grants and all money raised by public borrowing.

State Government budget receipts include (in addition to loan raisings) taxation, proceeds of sale of goods and services by trading undertakings, some of the grants made by the Commonwealth Government, fees, rents, recoups and other sundry items. State Government disbursements are made for capital works, for provision of services (such as health, education and water supply), for general administrative expenses, and for interest and redemption payments.

The State Government Budget excludes many transactions negotiated through State Government Deposit and Suspense Accounts (including working accounts) and Trust Funds. The volume of such transactions is considerable. For example, road works financed through Road Maintenance Act charges and by Commonwealth Aid Roads grants are handled through working accounts, as are the operating costs and revenue of the Woods and Forests Department.

Some idea of the framework of the various funds may be obtained from the following table showing sources and disposal of funds in which the balances of Trust Funds and of Deposit and Suspense Accounts appear as specific lines.

Government of South Australia, Sources and Disposal of Funds at 30 June 1972

Sources and Nature of Funds	'000	'000	'000
Public Debt:			
Securities Current at 1 July 1971.....		1,256,337	
New Loans Raised during 1971-72		229,155	
		<u>1,485,492</u>	
Less: Securities Redeemed and Converted.....		151,771	
Public Debt at 30 June 1972			1,333,720
Other Interest Bearing Indebtedness:			
Trust Fund Balances			15,924
Liabilities to Commonwealth;			
Housing Agreements (a)			260,451
Marginal Dairy Farms Agreement			105
Natural Gas Pipeline Agreement			15,000
Railway Standardisation and Equipment Agreements...			17,275
Rural Industry Assistance Agreement			2,250
Softwood Forestry Agreement			1,268
Other			(b)
Non-Interest Bearing Indebtedness:			
Trust Fund Balances			5,615
Departmental Balances and Other Funds:			
Deposit and Suspense Accounts		20,487	
Less: Departmental Advances	305		
Payments in Suspense	6		
		<u>312</u>	
			<u>20,176</u>
			<u>1,671,785</u>

**Government of South Australia, Sources and Disposal of Funds
at 30 June 1972 (continued)**

Disposal of Funds	\$'000	\$'000	\$'000
Loan Account:			
Total of Loan Works at 1 July 1971		1,215,526	
Payments during 1971-72 (c)		149,690	
		1,365,216	
Less: Repayments	22,441		
Securities Cancelled	15,407		
Other Credits (d)	56,030		
		93,877	
Loan Works Account Balances at 30 June 1972			1,271,338
Other Loan Expenditure (e)			52,000
Consolidated Revenue Account:			
Deficit at 1 July 1971		4,558	
Receipts for Year	455,245		
Payments for Year	456,312		
Deficit for Year		1,066	
Deficit at 30 June 1972			5,624
Forestry Agreement:			
Advances to Forestry Board			1,268
Housing Agreements (a) :			
Advances to S.A. Housing Trust		146,282	
Advances to Home Builders Account No. 1		114,170	
		260,451	
Natural Gas Pipeline Agreement:			
Advances to Natural Gas Pipelines Authority			15,000
Railway Standardisation and Equipment:			
Improvements and Advances			17,275
Other Agreements:			
Advance to Marginal Dairy Farms Reconstruction Fund ...			105
Advance to Rural Industry Assistance Fund			2,250
Cash at Bank			46,474
			1,671,785

(a) From 1 July 1971 Housing programmes are financed from Loan Account.

(b) Less than \$500. (c) Includes \$249,916 nominal increase in Loan Account.

(d) Amount of debt to be taken over by Commonwealth (\$26,090,000) and Capital Works Grant, in lieu of loan raising (\$30,030,000).

(e) Not represented by Assets: debt to be taken over by Commonwealth.

Semi-Government Accounts

Most of the details included are based on the Auditor-General's annual reports prepared for a number of semi-government business undertakings, including those engaged in banking. Information is given from both revenue statements and balance sheets.

Local Government Accounts

Details included for Local Government Authorities to 1967-68 are based on cash statements of receipts and payments: from 1968-69 onward the details are based on annual statements prepared on an income and expenditure (accrual) basis in accordance with the 'Local Government Accounting Regulations, 1967'. Details of loan raisings are based on returns furnished separately.

Consolidated State, Local and Semi-Government Accounts

Any analysis of financial transactions of the Government sector would be incomplete without a comprehensive consolidation of all levels and funds of Government. No such data had been released until 1970 when the Commonwealth Statistician published the *Public Authority Finance* bulletin showing net receipts and outlays of the Commonwealth and each State separately and of the Commonwealth combined with all States. The figures are net and consolidated: net figures are those for which expenditures within a given classification have been reduced to the extent of any relevant receipt (and *vice versa*); and consolidated figures are those for which inter-authority, inter-level and inter-fund transactions are eliminated on consolidation of those authorities, levels and funds.

The tables which follow show figures on a consolidated net basis for State, local, and major semi-government authorities in South Australia for the five years to 1971-72. The figures should be regarded as interim only and could be subject to alteration as the analysis is extended and refined.

State, Local and Semi-Government Authorities, South Australia Receipts

Receipts	1967-68	1968-69	1969-70	1970-71	1971-72 <i>p</i>
	\$ million				
Current receipts:					
Taxes, fees, fines, etc.	78.1	85.9	95.3	100.3	137.1
Business undertakings;					
Gross operating surplus (a) ..	45.7	51.2	62.7	63.3	66.2
Interest, rent, royalties and dividends	10.9	12.4	14.7	16.2	16.7
Grants from Commonwealth Government	114.8	127.3	140.0	177.7	193.4
Total current receipts	249.6	276.6	312.8	357.5	413.5
Capital receipts:					
Net borrowing;					
Government securities,					
Australia	76.1	72.3	81.0	51.9	84.3
Overseas	-16.6	-3.4	-15.4	-6.5	-6.9
Local and semi-government securities	20.1	34.9	22.6	24.9	<i>n.a.</i>
Net receipts of private trust funds	0.4	-0.3	0.3	0.6	<i>n.a.</i>
Net advances from Commonwealth Government	21.7	26.9	25.6	26.5	-0.6
Other funds available (incl. errors and omissions) (b):	2.8	-1.7	1.4	-2.7	<i>n.a.</i>
Grants from Commonwealth Government	29.1	32.0	40.5	65.6	69.7
Total capital receipts	133.5	160.7	156.1	160.4	165.4
Reduction in:					
Cash and bank balances (c)....	-17.3	-17.7	-2.1	-0.7	} -1.3
Security holdings	-1.0	0.9	-7.4	-6.2	
Total receipts	364.9	420.6	459.4	510.9	577.6

(a) Before providing for interest and depreciation.

(b) Consists mainly of movements in debtors, creditors, reserves and provisions (other than for depreciation) of public business undertakings.

(c) Includes balances held by government authorities in government banks.

State, Local and Semi-Government Authorities, South Australia
Outlay

Outlay	1967-68	1968-69	1969-70	1970-71	1971-72 <i>p</i>
Current outlay:	\$ million				
Purchase of goods and services and grants to organisations..	129.6	142.3	160.2	195.3	235.2
Interest	66.1	72.2	81.4	89.6	99.6
Cash benefits to persons.....	1.1	1.4	3.3	4.3	4.8
Subsidies.....	0.5	0.4	0.2	0.2	0.4
Grants towards private capital expenditure	1.5	1.4	1.9	2.2	2.3
Total current outlay	198.7	217.7	247.0	291.5	342.2
Capital outlay:					
Gross capital formation (a)....	149.2	188.8	196.4	201.2	219.5
Net advances to other sectors..	17.0	14.1	16.1	18.2	15.9
Total capital outlay	166.2	202.9	212.4	219.4	235.4
Total outlay	364.9	420.6	459.4	510.9	577.6

(a) Expenditure on fixed assets and increase in stocks.

12.2 COMMONWEALTH-STATE FINANCIAL RELATIONS

The Commonwealth of Australia Constitution Act and the 1927 Financial Agreement represent significant events in Commonwealth-State financial relations. Under the former, the States surrendered the right to levy customs and excise duties which passed exclusively to the Commonwealth and under the latter, the Commonwealth became the borrowing agent for the States. Further details appear on page 537 of the *South Australian Year Book 1972*.

Since Federation the Commonwealth has made payments of various descriptions to the States. Before the 1939-45 War Commonwealth payments were mainly of a marginal character and were confined, for the most part, to special grants to assist the financially weaker States and to certain specific purpose grants relating to such matters as Commonwealth assistance for roads and contributions under the Financial Agreement.

Since the 1939-45 War there has been a marked increase in the amount and variety of Commonwealth assistance to the States. This has reflected, among other things, increases in the range and variety of government activities which have accompanied economic and social developments in this period of rapid growth of the Australian economy; greater participation by the Commonwealth in matters which were previously considered to be the sole responsibility of the States; and the effects of the introduction and continuation of uniform income tax and of other changes on the basic allocation of financial resources between the Commonwealth and the States.

There are various ways of classifying Commonwealth payments to the States. They may be classified as 'capital' as opposed to 'current' transactions; to general

purpose grants compared with payments for purposes specified by the Commonwealth; or in accordance with the constitutional authority under which the payments are made. Many of the recently introduced grants have been for purposes specified by the Commonwealth and instituted under Section 96 of the Constitution.

SPECIAL GRANTS

The Constitution provides, in Section 96, for the granting of special financial assistance to the States. Before 1933 financial assistance of varying amounts was granted to South Australia, Western Australia and Tasmania.

In 1933 the Commonwealth Government appointed the Commonwealth Grants Commission, of three members, to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto. From 1933 to 30 June 1959 applications were lodged by each of the three States already mentioned. South Australia ceased to be a claimant State from 1 July 1959; and at the Premiers' Conference in June 1968, following a request from Western Australia, it was agreed that (subject to certain considerations) claims by Western Australia would cease after payments in respect of 1967-68 leaving Tasmania as the only claimant State during 1968-69 and 1969-70. However, following the Premiers' Conference in June 1970 the Government of South Australia decided to again submit a claim; it did this on 6 July 1970. On 30 September 1971 Queensland also made application for a special grant. The Commission approved advance grants to South Australia of \$5 million in respect of 1970-71 and \$7 million in respect of 1971-72. In July 1972 the Commission announced a further grant to this State of \$21 million, comprising a completion grant in respect of 1970-71 of \$7.5 million and an advance grant in respect of 1972-73 of \$13.5 million. The grants announced by the Commission are authorised by States Grants (Special Assistance) Acts.

FINANCIAL ASSISTANCE GRANTS

Financial assistance grants, formerly called tax reimbursement grants, make up the bulk of the assistance provided for general revenue purposes and are determined annually on the basis of an agreed formula.

A discussion of grants applicable before 1970-71 appears on pages 538-9 of the *South Australian Year Book* 1972. Financial assistance grants applicable for 1970-71 and later years were discussed at a special Premiers' Conference in February 1970.

At that Conference the Commonwealth opposed any resumption by the States of powers to impose income tax but offered in principle to improve the position of the States in four ways:

- (1) by increasing the basic figure used in the formula to determine the level of Financial Assistance Grants;
- (2) by increasing the rate of growth in the amounts granted to the States;
- (3) by assuming responsibility for some part of State debts; and
- (4) by making grants, in lieu of State borrowings, for some part of future works programmes to reduce the rate of growth in State indebtedness.

Following the June 1970 Premiers' Conference the Commonwealth gave effect to this offer by passing the *States Grants Act 1970*, the *States Grants (Debt Charges Assistance) Act 1970* and the *States Grants (Capital Assistance) Act 1970*, details of which appear below.

The *States Grants Act 1970* provides for the continuation of formula grants with special cumulative assistance to Queensland for a further five years and an additional \$40 million in 1970-71 to be shared between the States in proportion to their new 1970-71 grants: it also provides for additional assistance of \$10 million to be paid to Tasmania and this \$10 million together with the \$40 million mentioned above is to be included in the base for calculation of 1971-72 formula grants and so on. From 1971-72 the 'betterment' factor was increased from 1.2 per cent to 1.8 per cent. Other payments authorised by this Act and not included in the base for determining formula grants are \$2 per head of population to be made to N.S.W. and Vic. for each of the five years 1970-71 to 1974-75 and a grant of \$12.5 million to W.A. in 1970-71, decreasing by \$3 million in each year to 1974-75.

The *States Grants Act 1971* embodies the receipts duty compensation arrangements decided on at a Premiers' Conference held in October 1970. After the High Court invalidated certain forms of the stamp duty on receipts which the States had been imposing and the Senate refused to pass Commonwealth legislation to provide for continuance of the duty beyond 30 September 1970 it was agreed that the States would not impose any part of the duty beyond that date. In return the Commonwealth undertook to make good the whole of the resultant loss of revenue to the States for the remainder of 1970-71 and to add into the base for the calculation of the formula grants in 1971-72 and subsequent years an estimate of the receipts duty that would have been collected in 1970-71 had it been a normal year. Additional financial assistance of \$59.7 million was paid in 1970-71 and \$88.4 million was added to the base for 1971-72.

At a special Premiers' Conference held in April 1971, the Commonwealth agreed to provide the States with extra financial assistance totalling \$43 million to be applied towards reducing the States' accumulating deficits. Under the *States Grants Act 1971* this money was shared between the States in proportion to their shares of the 1970-71 Financial Assistance Grants.

The *States Grants Act (No. 2) 1971* gave effect to an agreement made at the June 1971 Premiers' Conference that the Commonwealth would transfer to the States as soon as possible the right and responsibility to levy payroll tax and that there would be an appropriate adjustment to the financial assistance grants. The reduction in the financial assistance grants in 1971-72 (and in the 'base' figure for future years' calculations) is less than the amount of payroll tax foregone by the Commonwealth and made available to the States. The main factors in this lesser reduction in the grants are a sum of \$22.3 million in recognition of the States' serious budgetary problems, and a sum of about \$8 million to permit the States to relieve local government (other than business undertakings) of the impost of payroll tax. As part of the overall arrangements the Commonwealth agreed to make a further contribution of \$40 million towards the States' problems in 1971-72, but this amount will not be written into the base for escalation in future years in accordance with the formula under the legislation. In recognition of the fact that payroll tax may be expected to grow at an annual rate a little below the rate of growth of grants under the formula, the Commonwealth, in

calculating the 1972-73 grants, increased further the 1971-72 base by \$3 million for the six States combined. At the February 1972 Premiers' Conference the Commonwealth agreed to provide further special revenue assistance to the States in 1971-72 totalling \$32.5 million. Of this, \$15 million was provided by way of non-recurring grants distributed between the States in proportion to their financial assistance grants and the remaining \$17.5 million was a special repayable advance to New South Wales. The additional assistance of \$15 million was authorised by the *States Grants Act 1972*. For further details see the document *Commonwealth Payments to or for the States*.

Following the June 1971 Premiers' Conference it was reported that the Premiers had agreed to increase the rate of payroll tax from 2.5 per cent to 3.5 per cent as soon as authority for the tax could be transferred to the States.

At the June 1972 Premiers' Conference the Commonwealth agreed to extra assistance of \$112 million for 1972-73 with this amount to form part of the base for the calculation of formula grants in future years. Special non-recurring assistance of \$3.5 million was approved for Western Australia while the non-formula grants of \$2 per head of population for New South Wales and Victoria agreed to at the June 1970 Conference were increased to \$3.50 per head for 1972-73 and thereafter escalated in accordance with the formula.

The *States Grants (Debt Charges Assistance) Act 1970* provides for the Commonwealth to take over responsibility for charges on \$200 million of existing State debt at the beginning of each of the five years commencing 1970-71. Formal transfer of such debt from the States to the Commonwealth will occur in June 1975.

Capital assistance in the form of a grant, in lieu of loan raisings, is authorised by the *States Grants (Capital Assistance) Act 1970* which provides for a grant to the States of \$200 million in 1970-71, increasing in future years in proportion to the increase in the Loan Council works and housing programme. South Australia's share of this grant, proportionate to its share of the works and housing programme, was approximately \$27.4 million in 1970-71. This assistance was continued in 1971-72 under the 1971 Act, South Australia's share being approximately \$28.8 million.

As well as increasing the 1971-72 grants and providing for similar grants in 1972-73, States Grants (Capital Assistance) Acts passed in 1972 provided for additional grants by way of capital assistance to the States for government primary and secondary schools during 1971-72 and 1972-73. South Australia's share of the general works and housing grant for 1972-73 is approximately \$34.1 million and its share of the government primary and secondary schools grant for the same year is approximately \$1.8 million.

OTHER FINANCIAL ASSISTANCE

In addition to the grants under the Financial Agreement, the special grants recommended by the Commonwealth Grants Commission, and the financial assistance grants, the Commonwealth makes payments to the States for many specific purposes, some details of which are given below.

Grants for road works have been made since 1923, and from 1931 to 1958 were based on a percentage, varied from time to time, of Commonwealth petrol

taxation. A new scheme of Commonwealth assistance to the States for roads was established by the *Commonwealth Aid Roads Act* 1959. The Commonwealth undertook to provide \$500 million for distribution, according to stated criteria, to the States during the five years to 30 June 1964. The *Commonwealth Aid Roads Act* 1964 stipulated a sum of \$750 million for distribution to the States during the five years from 1 July 1964. For the five years commencing 1 July 1969 the relevant sum is \$1,252 million. The criteria for distribution to the States, and South Australia's share of these grants, are mentioned in references and text in Part 8.3 Roads.

Under successive Commonwealth-State Housing Agreements between 1 July 1956 and 30 June 1971, housing advances were made by the Commonwealth to the States at concessional rates of interest. A new arrangement under the *States Grants (Housing) Act* 1971 applicable from 1 July 1971 provides that the interest concession will be replaced by annual grants payable over a period of thirty years. This is intended to assist the States in continuing the provision of housing for lower income groups and is supplemented during the first five years by additional grants toward the cost of reduced rents charged to needy families occupying South Australian Housing Trust homes.

Under the *States Grants (Mental Health Institutions) Act* 1964 the States are entitled to receive assistance amounting to one-third of the total expenditure incurred by them, with Commonwealth approval, in building and equipping mental health institutions. The *States Grants (Mental Health Institutions) Act* 1970 extended to 1973 the period for which this assistance would be provided.

Payments to the States for recurrent expenditure of universities commenced in 1951-52. Grants for capital works and equipment for universities were introduced in 1958. Capital and current grants for the three years 1967 to 1969 totalled \$182,500,000. The *States Grants (Universities) Act (No. 2)* 1970, as amended, provided for grants of up to \$249,716,000 to the States for universities (including halls of residence and teaching hospitals) during the three calendar years 1970 to 1972: the *States Grants (Universities) Act (No. 2)* 1972 extends this assistance a further three years, providing for grants of up to \$343,773,000.

In 1964 the Commonwealth authorised payments to assist in the investigation and measurement of river and underground water resources.

From 1964 the Commonwealth has legislated for grants designed to assist education and research in the States. Grants introduced during the first three years related to science laboratories in State and private secondary schools, training of persons for employment in trade and technical occupations, education in non-university tertiary institutions (colleges of advanced education), and approved research projects. The range of institutions eligible for assistance through these grants was extended in 1967 to include teachers colleges, and in 1968 pre-school teachers colleges and secondary school libraries. The *State Grants (Independent Schools) Act* 1969 extended this assistance further by providing for the payment of *per capita* grants (in respect of recurrent expenditure) to independent schools. *Per capita* amounts were increased (to \$50 per primary pupil and \$68 per secondary pupil, a year) by the *States Grants (Independent Schools) Act* 1972. For a period of 5 years from January 1973 the Commonwealth will contribute towards the recurrent costs of independent schools in the States at rates equivalent to 20 per cent of the assessed Australia-wide cost of educating a child in government

primary and secondary schools. This assistance is authorised by the *States Grants (Schools) Act 1972* which also provides for unmatched capital grants for both government and independent schools over the same period of time. South Australia's share of these capital grants (totalling \$215 million) is estimated at \$21 million.

In 1969 the Commonwealth introduced additional grants to the States for dwellings for aged pensioners, home care, nursing homes, and paramedical services.

The *States Grants (Aboriginal Advancement) Act 1970* provided for continuation of grants commenced in 1968-69 relating to the welfare and advancement of Aborigines and included specific provisions for financial assistance for the housing of Aborigines. Grants in 1972-73 are provided under the *States Grants (Aboriginal Advancement) Act 1972*.

The *South Australian Grant (Fruit Canneries) Act 1971* provides for a grant of approximately \$1.3 million to assist the South Australian Government to write off debts owed to it by two fruit canneries.

From time to time the Commonwealth makes 'Natural Disaster' payments to various States: in 1968 grants to South Australia were authorised to reimburse expenditure on alleviation of the effects of drought and to compensate for loss of revenue resulting from drought.

The *States Grants (Rural Reconstruction) Act 1971* provides for the payment of \$100 million (\$12 million to South Australia) over a period of approximately four years to provide assistance under three headings, namely debt reconstruction, farm build-up and rehabilitation. The Commonwealth recently agreed to make available the full \$100 million by the end of 1972-73 and to provide a further \$15 million (\$1.8 million to South Australia) in 1973-74. Some details of the scheme are given on pages 102-3. The *States Grants (Fruit-growing Reconstruction) Act 1972* provides for the payment of \$4.6 million to the States by way of assistance to growers for removal of apple, pear and peach trees.

In December 1971 the Commonwealth announced grants, to be spent on activities which create employment in rural areas, totalling approximately \$36 million to be paid to the States at a monthly rate of approximately \$2.25 million for the next eighteen months. The original plan, subject to later review, provided that for the first seven months South Australia would receive \$945,000 but this was increased in February 1972 when the monthly rate of payment to each State was doubled. A further increase was announced in June 1972 when the monthly rate was raised to \$6 million (South Australia's share being \$360,000 a month).

For more complete historical and current information on Commonwealth financial assistance to the States reference should be made to the most recent issue of the bulletin *Commonwealth Payments to or for the States* presented to the Parliament of the Commonwealth of Australia.

Figures in the following table are those which have been published in various issues of that bulletin and show the general pattern of Commonwealth payments to or for the State of South Australia since the Financial Agreement in 1927: some amounts shown are repayable to the Commonwealth (e.g. portion of railway project payments) but repayable advances for housing and war service land settlement are not included.

Commonwealth Payments To or For the States, South Australia

Particulars	1939-40	1949-50	1959-60	1969-70	1970-71	1971-72
	\$'000					
Financial Agreement:						
Interest on State Debt	1,408	1,408	1,408	1,408	1,408	1,408
Sinking Fund on State Debt	360	488	1,583	3,053	3,226	3,458
Special Grants	1,990	8,348	2,852	—	5,000	7,000
Financial Assistance Grants (tax re- imbursements)	—	10,734	55,350	125,706	151,602	158,491
Additional Assistance	—	—	—	1,690	4,650	5,929
Debt charges assistance	—	—	—	—	1,496	2,991
Commonwealth Aid Roads Act ...	1,006	2,039	9,846	21,000	23,500	25,500
Beef cattle roads	—	—	—	—	300	350
Grants to universities	—	—	1,787	6,470	8,180	8,494
Science laboratories and technical training	—	—	—	2,010	2,393	1,958
Research Grants	—	—	—	551	759	577
Mental health institutions—contri- butions to capital expenditure....	—	—	184	1,299	909	246
Tuberculosis Act, 1948—Capital ...	—	—	214	69	108	155
Current	—	34	1,247	551	545	715
Agricultural extension services	—	30	102	460	538	651
Water resources investigations	—	—	—	142	187	158
Railway projects	40	40	102	12,212	2,370	1,024
Natural gas	—	—	—	—	2,250	1,750
Colleges of advanced education ...	—	—	—	2,402	3,773	3,350
Softwood forestry	—	—	—	350	300	93
Price control reimbursements	—	148	—	—	—	—
Coal Strike Emergency Grant	—	1,347	—	—	—	—
Assistance for deserted wives	—	—	—	210	294	464
Teachers colleges	—	—	—	2,021	140	1,063
Pre-school teachers colleges	—	—	—	—	480	110
Aboriginal advancement	—	—	—	535	660	800
School libraries	—	—	—	627	1,343	891
Independent schools	—	—	—	759	1,526	1,889
Tailem Bend pipeline	—	—	—	1,500	1,500	1,500
Dwellings for aged pensioners	—	—	—	160	311	1,002
Blood transfusion services	—	—	32	83	124	139
Non-metropolitan unemployment relief	—	—	—	—	—	1,620
Capital grants for government schools	—	—	—	—	—	910
Housing grants	—	—	—	—	—	623
Other	—	64	120	107	282	353
Total	4,804	24,680	74,827	185,375	220,154	235,662

NATIONAL WELFARE FUND

The States also receive, from the Commonwealth through the National Welfare Fund, payments in respect of hospital and pharmaceutical benefits, nutrition of children and reimbursement of maintenance expenditure on tuberculosis sanatoria. In South Australia the receipts are paid into the Consolidated Revenue Account (or a suspense account in the case of the payment for free milk for school children). Receipts for the year 1971-72 were hospital benefits \$1,727,000, pharmaceutical benefits \$1,726,000, free milk for school children \$1,060,000, tuberculosis reimbursement of maintenance expenditure and surveys \$757,000.

The amounts stated above for hospital and pharmaceutical benefits relate to particular classes of patients and a limited range of drugs in government

hospitals and are only a small portion of the total hospital and pharmaceutical benefits (see pages 259-62) which are paid from National Welfare Fund to or for residents of this State.

12.3 STATE GOVERNMENT FINANCE

State Government accounting in South Australia is on a 'cash' basis. Receipts and payments fall into five main divisions, namely the Consolidated Revenue Account and Loan Fund (which together constitute the budget sector), Special Commonwealth Advances, Trust Fund Accounts and Deposit and Suspense Accounts.

CONSOLIDATED REVENUE ACCOUNT

This account is credited with receipts from many items of State taxation, fees, licences and charges for services, recoveries of interest and sinking fund, sales of Crown lands, and Financial Assistance Grants (originally entitled Tax Reimbursement Grants) and some other Commonwealth grants. The account is debited with the cost of revenue collection, legislative and administrative functions, interest and sinking fund on the public debt, provision of social services, operation of public undertakings and development of State resources. The resultant balance represents the State's surplus or deficit for the year.

The following table shows, for the financial year 1971-72 and four earlier years, Consolidated Revenue receipts and payments, the resulting surplus or deficit for the relevant year, and cumulative surplus or deficit at the end of that year: any cumulative deficit is regarded as an application of borrowed funds as indicated in the table on pages 540-1.

Consolidated Revenue Account, South Australia

Particulars	1939-40	1949-50	1959-60	1969-70	1971-72
	\$'000				
Receipts	25,511	58,721	160,555	338,498	455,245
Payments	25,837	59,100	161,177	335,578	456,312
Surplus (+) or deficit (-):					
Current Year	-325	-379	-622	+2,920	-1,066
Cumulative	+1,999	+3,215	-3,376	-4,579	-5,624

Per Head of Population

	Dollars				
Receipts	42.72	85.50	171.99	293.06	384.60
Payments	43.28	86.05	172.65	290.53	385.50

Sources of Revenue

The sources of revenue for the financial years 1967-68 to 1971-72 were as follows:

Consolidated Revenue Account: Sources of Revenue, South Australia**Total Revenue**

Source of Revenue	1967-68	1968-69	1969-70	1970-71	1971-72
			\$'000		
Net taxation (a)	47,188	52,463	58,658	61,550	96,161
Business undertakings	70,256	73,490	86,418	91,282	102,439
Territorial: Land sales, rents etc.	2,074	2,437	3,028	3,072	3,250
Other:					
Interest and exchange	20,906	22,566	24,849	26,691	29,577
Fees, fines, rents, etc.	28,247	29,873	36,741	40,055	47,951
Commonwealth grants (b)	105,872	117,525	128,803	164,207	175,866
Total	274,544	298,355	338,498	386,859	455,245

Per Head of Population

	Dollars				
Net taxation (a)	42.31	46.37	51.05	52.69	81.24
Business undertakings	62.99	64.95	75.21	78.15	86.54
Territorial: Land sales, rents etc.	1.86	2.15	2.64	2.63	2.75
Other:					
Interest and exchange	18.74	19.95	21.62	22.85	24.99
Fees, fines, rents, etc.	25.32	26.40	31.97	34.29	40.51
Commonwealth grants (b)	94.92	103.88	112.09	140.58	148.57
Total	246.14	263.70	294.58	331.19	384.60

Proportion of Total Revenue

	Per cent				
Net taxation (a)	17.19	17.59	17.33	15.91	21.12
Business undertakings	25.59	24.63	25.53	23.60	22.50
Territorial: Land sales, rents, etc.	0.76	0.82	0.89	0.79	0.71
Other:					
Interest and exchange	7.62	7.56	7.34	6.90	6.50
Fees, fines, rents, etc.	10.28	10.00	10.86	10.35	10.54
Commonwealth grants (a)	38.56	39.40	38.05	42.45	38.63
Total	100.00	100.00	100.00	100.00	100.00

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) Includes grants under Financial Agreement and Financial Assistance Grants (originally entitled 'Tax Reimbursement').

Taxation

Until the introduction of the uniform income tax scheme in 1942-43, income tax was the major source of taxation revenue in South Australia. Revenue from this form of taxation for the years 1939-40 to 1941-42 was \$4,718,000, \$4,952,000 and \$5,638,000 respectively or 51.70 per cent, 57.02 per cent, and 59.45 per cent of total revenue from taxation. The following table shows receipts

of taxation into Consolidated Revenue Account over the last five years: receipts of taxation into other accounts are shown on page 565; the major forms of taxation now left to the State are payroll tax, motor tax, succession and stamp duties, and land tax.

Consolidated Revenue Account: Revenue from Taxation, South Australia^{(a) (b)}

Tax	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Land tax	7,701	7,644	7,595	7,550	9,732
Succession duty	8,153	8,822	8,312	9,030	10,659
Gift duty	—	309	611	733	834
Racing tax (b)	1,373	1,374	948	1,018	1,295
Motor tax (b)	12,877	13,728	14,537	15,671	19,593
Stamp duties (c)	12,235	14,847	20,620	(d)20,711	21,980
Payroll tax	—	—	—	—	22,804
ETSA levy	—	—	—	468	2,081
Licences: liquor	2,236	2,633	3,083	3,255	3,591
other	592	681	746	834	1,063
Court fines (estimated)	1,859	2,286	2,077	2,102	2,321
Other	161	140	128	178	209
Total	47,188	52,463	58,658	61,550	96,161

Proportion of Total Taxation

	Per cent				
Land tax	17.03	15.27	13.46	12.27	10.12
Succession duty	18.03	17.62	14.73	14.63	11.08
Gift duty	—	0.62	1.08	1.19	0.87
Racing tax (b)	3.04	2.74	1.68	1.65	1.35
Motor tax (b)	28.47	27.42	25.75	25.46	20.38
Stamp duties (c)	25.93	28.30	35.15	(d)33.65	22.86
Payroll tax	—	—	—	—	23.71
ETSA levy	—	—	—	0.76	2.16
Licences: liquor	4.94	5.25	5.47	5.29	3.73
other	1.25	1.30	1.27	1.35	1.11
Court fines (estimated)	3.94	4.36	3.54	3.42	2.41
Other	0.34	0.27	0.22	0.29	0.22
Total	100.00	100.00	100.00	100.00	100.00

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) See also State Taxation on page 565.

(c) Excludes stamp duty on third party insurance.

(d) Includes payments in lieu of stamp duty.

Early in 1969 an expanded receipts duty was introduced by the State Government. A duty of 1 cent in each \$10 (or part thereof) became payable on certain receipts including cash sales but excluding salaries and wages. A High Court ruling in relation to appeals against similar legislation in two other States invalidated some parts of the receipts duty legislation in all States: the Court found that duty on some receipts is an excise duty which only the Commonwealth has power to levy. The Commonwealth subsequently agreed to introduce legislation to impose a receipts duty throughout Australia and

to make the proceeds available to the States; such an arrangement existed from 18 November 1969 to 30 September 1970 after which receipts duty ceased to be payable under either State or Commonwealth legislation.

Gift duty is payable under the provisions of the Gift Duty Act, 1968-1969.

For several years a stamp duty has been payable on hire purchase agreements. From early in 1969 a similar duty became applicable to a much wider range of instalment purchase, leasing and other lending transactions.

In addition to the fields of taxation open to the State Government, there are fields of taxation in which the Commonwealth Government has sole taxing authority, *e.g.* customs and excise duties (since Federation) and sales tax. Before 1942 the Commonwealth Government levied income tax in addition to that imposed by the States but since the commencement of uniform taxation the Commonwealth Government has been, in practice, the sole levier of income tax although the States may still legally operate in this field. Total taxation collected by the Commonwealth Government in South Australia far exceeds State taxation: this is evident from a comparison of the figures in the preceding table with those which follow.

Commonwealth Taxation Collected, South Australia^(a)

Tax	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Income tax	210,549	219,783	288,340	332,936	380,318
Sales tax	32,076	38,733	44,380	48,881	52,288
Payroll tax	15,820	17,703	20,410	23,339	8,211
Customs duties	16,301	19,298	21,006	22,646	21,913
Excise duties (b)	71,707	73,445	79,972	93,510	107,308
Estate duty	4,910	5,956	6,998	5,214	6,513
Gift duty	804	1,073	707	702	540
Wool tax	1,399	1,833	1,706	—	—
Stevedoring industry charge	1,454	1,509	1,710	1,547	1,649
Broadcasting Listeners and Television Viewers Licences	4,219	4,930	5,238	5,657	7,160
Other	444	471	598	1,407	1,481
Total	359,683	384,733	471,065	535,837	587,379
Per head of population	\$ 322.47	\$ 340.05	\$ 409.94	\$ 458.73	\$ 496.22

(a) These figures represent amounts paid into the Commonwealth Sub-Treasury in South Australia and do not purport to reflect accurately the taxes paid by the residents of this State.

(b) Excludes net diesel fuel tax, non-commercial users.

Business Undertakings

Business undertakings supply such services as passenger and freight rail carriage, sewerage, water supply, water storage, harbour facilities, etc. Produce stores provide refrigeration for the storage of goods in Adelaide whilst at Port Lincoln lambs, pigs and cattle are treated for export or local consumption. Revenue from business undertakings for the financial year 1938-39 was \$9,914,000, for 1958-59, \$50,370,000 and for 1971-72 it was \$102,439,000. Total revenue from business undertakings during each of the last five years and the proportion of that revenue to total Consolidated Revenue are shown on page 551. A dissection of revenue from business undertakings is given in the following table.

Revenue from Business Undertakings, South Australia^(a)

Undertaking	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Railways (b)	38,611	40,350	48,737	48,140	55,243
Harbours, jetties and lights	6,436	6,547	7,244	7,461	7,813
Sewers	7,539	8,210	9,382	11,428	13,077
Waterworks and water conservation	14,638	15,580	17,403	20,275	21,682
Irrigation and drainage	1,033	1,042	1,152	1,173	1,256
Produce stores	558	433	546	809	1,016
Forestry (c)	1,440	960	1,440	1,440	1,740
State Bank (c)	—	370	515	556	614
Total	70,256	73,490	86,418	91,282	102,439

(a) Receipts into Consolidated Revenue but excluding recoveries of interest and sinking fund.

(b) Includes grant from Treasury each year—\$19,500,000 in 1971-72.

(c) Contribution to Consolidated Revenue from surplus earned.

Payments from Consolidated Revenue Account

Although public moneys from the Consolidated Revenue Account are expended by various government departments the following table shows expenditure on a functional basis.

Consolidated Revenue Account: Expenditure
Classified According to Functions, South Australia

Function	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Legislation and general administration	16,712	18,786	20,821	25,064	26,224
Law, order, public safety	13,718	14,776	16,329	19,195	22,748
Regulation of trade and industry	911	1,021	1,153	1,432	1,782
Education	63,982	71,055	83,679	101,644	126,885
Encouragement of science, art and research	1,393	1,564	1,742	2,106	2,530
Promotion of public health and recreation	31,921	33,848	38,476	46,961	57,320
Social amelioration	4,811	5,305	5,919	6,985	9,136
War obligations	496	484	397	631	1,199
Local government (a)	80	32	20	61	60
Development and maintenance of State resources other than business undertakings	19,293	20,473	21,880	25,038	30,663
Business undertakings	59,689	60,871	68,357	74,529	85,625
Public debt charges:					
Interest and exchange	53,861	58,335	64,681	70,031	78,033
Sinking fund	10,537	11,346	12,124	13,160	14,106
Total	277,404	297,895	335,578	386,838	456,312
	\$				
Per head of population	248.07	263.30	292.04	331.19	385.50

(a) Grants and advances are included under various appropriate functions.

Public debt charges were 23.21 per cent of consolidated revenue expenditure in 1967-68 and 20.92 per cent in 1971-72. Apart from public debt charges and expenditure by business undertakings, expenditure on education, 23.06 per cent in 1967-68 and 27.81 per cent in 1971-72, exceeded that on other individual functions.

Expenditure on public health and recreation was 11.51 per cent of the total in 1967-68 and 12.56 per cent in 1971-72.

If the public debt charges are allocated to the various functions and all receipts, with the exception of revenue from taxation and Commonwealth grants, are offset against the payments for the corresponding functions, a table showing the 'net cost of functions' can be prepared. The following is such a table for the financial years 1970-71 and 1971-72, showing also the net cost per head of population.

Total net cost of functions increased in 1971-72 from the total in 1970-71 by \$47,358,000 (or 20.98 per cent). Net cost of education represented 45.68 per cent of the total net cost in 1971-72, an increase of approximately \$24,050,000 on expenditure on education in 1970-71. Total net cost per head of population rose by \$37.46.

Consolidated Revenue Account: Expenditure
Net Cost of Functions, South Australia

Function	1970-71		1971-72	
	Net Cost	Per Head of Population	Net Cost	Per Head of Population
	\$'000	\$	\$'000	\$
Legislation and general administration . .	19,266	16.49	21,923	18.52
Law, order and public safety	16,892	14.46	18,916	15.98
Regulation of trade and industry	1,288	1.10	1,617	1.37
Education	100,726	86.23	124,776	105.41
Encouragement of science, art and research	2,189	1.87	2,607	2.20
Promotion of public health and recreation	37,503	32.11	44,647	37.72
Social amelioration	6,231	5.33	8,209	6.93
War obligations	662	0.57	1,043	0.88
Local government (a)	59	0.05	47	0.04
Development and maintenance of State resources other than business undertakings	21,564	18.46	26,741	22.59
Business undertakings	18,930	16.22	22,568	19.07
Revenue deficiencies	424	0.36	—	—
Total	225,736	193.25	273,094	230.71

(a) Grants and advances are included under various appropriate functions.

Business Undertakings, Expenditure

Further details of the expenditure of business undertakings for the years 1967-68 to 1971-72 are given in the next table.

Business Undertakings: Expenditure, South Australia

Function	1967-68	1968-69	1969-70	1970-71	1971-72
			\$'000		
Railways	41,317	43,764	49,881	53,191	62,487
Navigation, harbours, lights	3,585	3,684	3,596	4,261	4,599
Water supply, sewerage, irrigation and drainage ..	14,152	12,815	14,183	16,137	17,466
Produce Department	634	608	697	941	1,073
Total	59,689	60,871	68,357	74,530	85,625

TRUST FUNDS ACCOUNTS

These are principally moneys lodged with the Treasurer by public authorities and other bodies on current account; funds held for specific purposes pursuant to legislation, not necessarily expendable in any one year; contractors' and statutory deposits and unclaimed moneys. At 30 June 1972 they represented approximately 1.30 per cent of the indebtedness of the South Australian Government. Total balances at 30 June 1970, 1971 and 1972, with many of the larger balances itemised, are shown in the following table.

Trust Funds Accounts, South Australia**Balances at 30 June**

Particulars	1970	1971	1972
		\$'000	
Commissioners of Charitable Funds	1,645	244	383
Electricity Trust of South Australia	900	900	—
Fire Brigades Board	555	674	769
Flinders University of South Australia	947	1,165	954
Municipal Tramways Trust	550	550	—
Natural Gas Pipelines Authority of South Australia	18	1,053	661
Police Pensions Fund	261	392	219
Royal Adelaide Hospital Endowment Fund	901	946	993
South Australian Housing Trust Fund	2,925	2,712	4,618
South Australian Institute of Technology	508	1,398	1,142
South Australian Superannuation Fund	325	317	185
University of Adelaide	1,927	2,724	2,988
Other	2,284	2,778	3,012
Balances on which interest is paid	13,745	15,853	15,924
Agricultural Research and Service Grants	385	382	350
Crown Solicitors Trust Account	1,132	584	1,419
Leigh Creek Coal Fund	510	249	—
Lotteries Fund	233	247	331
Public Trustee; Common Fund Reserve	183	183	183
Commonwealth Grant towards Aboriginal Welfare	1	79	249
Commonwealth Grant for Education Purposes	1,361	687	908
Workmen's Liens	155	156	179
Other	698	1,036	1,996
Balances on which no interest is paid	4,658	3,603	5,615
Total Trust Funds	18,403	19,456	21,540

LOAN FUND ACCOUNTS

These accounts record the capitalised expenditure on construction or acquisition of assets such as schools, reservoirs, hospitals, forests, plant and stores; advances to public authorities; and for primary production and housing. During recent years some capital grants (e.g. for University, Advanced Education and non-Government hospital buildings) have also been made from loan funds.

State borrowing programmes are subject to consideration and agreement at meetings of the Australian Loan Council. Funds are raised by the sale of Commonwealth Government securities on behalf of the State pursuant to the Financial Agreement which also provides for the redemption of such securities over specified periods from sinking funds contributed by the State and Commonwealth to the National Debt Commission. Gross expenditure from these accounts for the years 1967-68 to 1971-72 is shown in the next table.

Loan Fund Accounts: Gross Expenditure, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Undertakings:			\$'000		
Railways	5,394	5,212	6,810	7,745	8,121
Harbours and jetties	2,117	2,987	4,412	5,307	4,788
Metropolitan water supply and sewers	15,671	15,683	18,407	18,228	18,327
Country water supply and sewers (a)	11,318	11,844	11,664	12,299	13,449
Irrigation works	369	425	372	649	1,034
Afforestation	2,250	2,282	2,485	3,068	2,741
Other undertakings	623	518	271	130	168
Loans and advances:					
Advances to primary producers	1,030	1,584	1,812	2,421	2,135
State Bank	—	—	1,000	2,000	1,000
Advances for housing (b)	700	650	459	2	27,717
Tramways Trust	—	—	—	1,000	1,000
Electricity Trust	6,700	6,000	6,000	4,500	4,500
State Planning Authority	—	—	—	250	350
Other loans and advances	1,330	3,658	1,568	139	1,145
Other purposes:					
Buildings:					
Hospitals	6,823	7,791	11,074	10,669	13,911
Schools	8,678	13,270	15,500	17,885	22,315
Police and courts	397	594	667	1,329	1,351
Other	3,842	3,071	3,537	5,203	7,641
Capital grants (c)	7,191	6,669	7,390	12,077	11,315
Mines Department stores, etc. .	208	244	391	264	287
Education Department, purchase of buses	269	319	325	379	392
Metropolitan floodwaters, etc. .	1,288	1,842	2,627	1,606	1,472
Data processing equipment ...	51	8	8	920	205
Renmark Irrigation Trust	201	243	174	254	298
Festival Theatre	—	700	900	900	900
Kangaroo Island ferry	—	—	—	—	1,110
Other	665	1,017	3,521	1,015	1,332
	77,114	86,611	101,374	110,239	149,004
Repatriation of overseas loans ..	1,720	—	829	278	250
Floating Conversion Loans:					
Flotation expenses, etc.	224	307	217	425	436
Total	79,058	86,918	102,418	110,944	149,690

(a) Includes Morgan-Whyalla water main and water conservation.

(b) Includes amounts previously provided under the Commonwealth-State Housing Agreement.

(c) For university, college of advanced education and non-government hospital buildings.

SPECIAL COMMONWEALTH ADVANCES

Pursuant to Commonwealth-State agreements, the Commonwealth has made sums available to the State for the erection of houses by State instrumentalities, for loans to home builders, and for railway standardisation purposes. These advances are not subject to sinking fund conditions but are repayable to the Commonwealth by annual instalments in terms of the respective agreements.

The Commonwealth-State Housing Agreement was terminated on 30 June 1971, and a new arrangement including the *States Grants Housing Act* 1971 operated from 1 July 1971. The States are now responsible for financing their housing programmes from loan allocations but under the new legislation receive Commonwealth assistance by way of grants towards the debt charges involved. In terms of the above Act South Australia received \$470,250 in 1971-72.

During 1971-72 funds provided by the Commonwealth for railway standardisation works totalled \$1,015,000. The State's liability to the Commonwealth at 30 June 1972 was \$16,161,000: this is in addition to the State's liability of \$427,000 to the Commonwealth on account of rolling stock provided for the Indian-Pacific train at a total cost (shared by the Commonwealth, New South Wales, South Australia and Western Australia) of \$4,559,000.

Under the *Railway Equipment Agreement (South Australia) Act* 1961 the Commonwealth agreed to make available to the State funds up to a maximum of \$2,650,000 for the purpose of providing diesel locomotives and ore wagons for the Port Pirie-Broken Hill railway. Thirty per cent of the total amount advanced is repayable over a fifty-year period, together with interest thereon. The State's liability to the Commonwealth at 30 June 1972 was \$648,000.

LOAN RAISINGS AND THE PUBLIC DEBT

State Debts Taken Over by Commonwealth

Under the Financial Agreement the Commonwealth took over on 1 July 1929 State responsibilities to bond-holders in respect of State debts existing on 30 June 1927; and all debts of each State existing on 1 July 1929 for money borrowed by that State are deemed to be money borrowed by the Commonwealth for and on behalf of the State. The Commonwealth agreed to contribute one-third of sinking funds required to repay those debts over a period of fifty-eight years.

Also for a period of fifty-eight years from 1 July 1927 the Commonwealth agreed to contribute the sum of \$15,169,824 (\$1,407,632 for South Australia) each year towards the interest payable on the State debts. The balance of the interest payable on State debts was to be paid into the National Debt Sinking Fund by the States.

As indicated on page 544 the Commonwealth Government in 1970 passed legislation providing for Commonwealth assumption of responsibility for charges on \$200 million of existing State debt at the beginning of each of the five years commencing 1970-71. The amount of South Australian debt taken over at the beginning of 1971-72 was \$52,000,000.

Australian Loan Council

One of the main features of the Financial Agreement was the establishment of the Australian Loan Council which was set up to co-ordinate the borrowings of the Commonwealth and the States. It consists of the Prime Minister of the

Commonwealth, or another Minister nominated by him in writing, as chairman, and the State Premiers, or Ministers nominated by them in writing.

Each year, the Loan Council examines the loan programmes of the Commonwealth and the States and determines the total amount to be borrowed during the year. Borrowings by the Commonwealth for defence purposes are not subject to decisions of the Loan Council.

Subject to the decisions of the Loan Council the Commonwealth arranges for all borrowings for or on behalf of itself or any State, and for all conversions, renewals, redemptions, and consolidations of the securities issued on behalf of the Commonwealth and of the States.

If the Loan Council unanimously decides, however, a State may borrow outside Australia in its own name, and may issue securities for the amount so borrowed. The Commonwealth then guarantees that the State will fulfil its obligations to bond-holders in respect of the money so borrowed, and the money is deemed to be borrowed by the Commonwealth for and on behalf of the State.

Subject to any maximum limits decided upon by the Loan Council for interest, brokerage, discount, and other charges, the Commonwealth or any State may borrow within its own territory, for any purpose, money from any authorities, bodies, funds, or institutions (including savings banks) constituted or established under Commonwealth or State law or practice; borrow from the public by means of counter sales of securities; and use any available public moneys.

However, any securities issued for moneys so borrowed or used must be Commonwealth securities on terms approved by the Loan Council.

Since 1936 the Australian Loan Council has, by the consent of its members, exercised substantial control over the limits of borrowing by local government and semi-government authorities.

National Debt Commission

The National Debt Commission and the National Debt Sinking Fund which it administers were created under the *National Debt Sinking Fund Act 1923*. All previously existing sinking funds relating to Commonwealth debt were merged in the National Debt Sinking Fund at the time of its establishment; and under the provisions of the Financial Agreement of 1927 all relevant interest and principal contributions by both the Commonwealth and the States, in respect of State debts, are negotiated through the Fund.

These contributions are not accumulated but are applied by the Commission to the redemption of the public debts of the States, and the repurchase of securities issued in respect thereof. Under the provisions of the Financial Agreement, repurchased or redeemed securities must be cancelled, and the debts of the States are reduced accordingly.

Contributions by the Commonwealth on behalf of South Australia, and by the State Government to the National Debt Sinking Fund, and redemptions and repurchases of securities by payment from the fund for the financial years 1970-71 and 1971-72 are given in the following table. Corresponding figures for all States are also stated.

National Debt Sinking Fund

Particulars	1970-71		1971-72	
	South Australia	All States	South Australia	All States
	\$'000			
Receipts:				
Contributions by Commonwealth	3,226	24,550	3,458	26,323
Contributions by State (a)	3,474	26,578	3,704	28,336
4½ per cent contributions by State on cancelled debt	7,893	60,284	8,511	64,835
4 per cent contributions on funded deficits	50	2,615	50	2,725
Contributions by State on loans for wasting assets	247	686	261	677
Interest received from State in respect of repurchased securities to date of cancellation of securities	16	162	16	139
Interest on the temporary investments of State funds during the year	10	70	18	140
Special contributions in respect of loans converted at a discount	9	123	—	107
Interest accrued on securities purchased as a short term investment of State funds	—	—	—	—
Total receipts	14,927	115,067	16,018	123,280
Expenditure:				
Redemptions and repurchases;				
In Australia	12,111	87,693	12,193	94,374
In London	969	10,824	1,020	11,574
In New York	1,387	11,841	2,134	14,999
In Canada	63	462	65	486
In Netherlands	70	547	73	571
Total expenditure	14,600	111,367	15,485	122,005

(a) Includes \$0.75 per cent contributions on Commonwealth Government debentures issued on behalf of the States.

For further information on the detailed operations of the National Debt Sinking Fund see the *Official Year Book of the Commonwealth of Australia*.

The Loan Fund

A summary of loan raisings to finance State Government loan works in South Australia during 1971-72 is given in the following statement. The total face value of new loans raised less redemptions, cancellations, and conversions shows the movement in the public debt.

The Loan Fund, South Australia

	\$'000	\$'000
(1) <i>Cash operations:</i>		
Surplus at 30 June 1971		14,811
Receipts:		
New loan raising		92,540
Repayments		22,441
Capital works grant		30,030
		159,823
Payments		149,440
Surplus at 30 June 1972		10,382
(2) <i>Movement in public debt:</i>		
The public debt at 30 June 1971		1,256,337
<i>Add:</i> Face value of new loans raised:		
For cash		92,540
For conversion		116,364
		1,465,242
<i>Less:</i> Face value of securities redeemed and cancelled by National Debt Commission	15,157	
Loans converted	116,364	
		131,522
The public debt at 30 June 1972		1,333,720

The Public Debt

The following table gives details of the public debt and total indebtedness of South Australia at 30 June 1972 and for nine previous years. A further table shows the annual interest payable on the public debt for these years and the average rate of interest.

Public Debt and Total Indebtedness, South Australia
At 30 June

Year	Public Debt—Being Interest Bearing Securities Outstanding		Other Interest Bearing Indebtedness (a)	Non-Interest Bearing Indebtedness (a)	Total Indebtedness	
	Total	Per Head			Total	Per Head
	\$'000	\$	\$'000	\$'000	\$'000	\$
1963.....	807,044	798.50	120,954	2,232	930,230	920.30
1964.....	853,555	822.30	136,236	2,685	992,477	956.10
1965.....	902,823	845.70	157,484	2,989	1,063,297	996.00
1966.....	955,128	872.30	180,466	2,317	1,137,911	1,039.20
1967.....	1,013,060	913.00	201,885	2,419	1,217,363	1,097.10
1968.....	1,074,959	958.25	227,933	2,616	1,305,508	1,163.76
1969.....	1,143,954	1,004.08	261,696	3,313	1,408,962	1,236.69
1970.....	1,210,489	1,045.33	281,587	4,657	1,496,732	1,292.51
1971.....	1,256,337	1,070.40	310,167	3,603	1,570,108	1,337.73
1972.....	1,333,720	1,124.08	312,274	5,615	1,651,610	1,392.00

(a) Gross less securities held on these accounts.

Public Debt: Interest Payable and Average Rate, South Australia

At 30 June	Annual Interest on Debt (a) in				Average Rate Per Cent (a)			
	Aus- tralia	London	Other	Total	Australia	London	Other	Total
	\$'000				Dollars			
1963....	31,672	2,347	1,231	35,249	4.43	3.50	5.13	4.37
1964....	33,612	2,534	1,193	37,339	4.42	3.61	5.13	4.38
1965....	37,088	2,530	1,137	40,756	4.57	3.65	5.13	4.51
1966....	40,928	2,360	1,267	44,555	4.73	3.65	5.21	4.66
1967....	44,808	2,323	1,176	48,307	4.83	3.66	5.27	4.77
1968....	48,868	1,883	1,098	51,848	4.87	3.72	5.27	4.82
1969....	53,063	1,813	1,026	55,902	4.93	3.73	5.27	4.89
1970....	59,280	1,382	940	61,601	5.12	3.88	5.28	5.09
1971....	69,607	1,191	858	71,656	5.76	3.86	5.30	5.70
1972....	71,472	1,044	753	73,268	5.53	3.97	5.31	5.49

(a) Based on the Debt converted at rates current at the time of the several raisings, and nominal rate of interest payable at 30 June taking no account of exchange.

Rates of interest and years of maturity on the public debt of South Australia are shown below.

Public Debt According to Rate of Interest, South Australia
At 30 June

Nominal Rate Per Cent	1968	1969	1970	1971	1972		
					Total	Redeemable In	
						Australia	Other (a)
					\$'000		
7	—	—	11,491	58,333	84,025	84,025	—
6.8	—	—	5,480	34,391	40,593	40,593	—
6.7	—	—	—	—	8,614	8,614	—
6.6	—	—	—	15,552	15,552	15,552	—
6.5	—	—	30,523	61,278	84,828	84,828	—
6.4	—	—	—	47,902	37,365	37,365	—
6.3	—	—	—	—	25,746	25,746	—
6	1,322	1,322	32,168	32,168	61,179	59,857	1,322
5.9	—	—	7,258	7,258	7,258	7,258	—
5.8	—	—	17,447	17,447	33,988	33,988	—
5.75	4,884	4,638	15,548	15,375	15,093	11,199	3,894
5.7	—	—	—	—	3,306	3,306	—
5.6	—	—	21,311	21,311	—	—	—
5.5	16,436	15,958	25,660	25,027	23,817	10,640	13,177
5.4	—	49,353	88,623	64,604	49,353	49,353	—
5.375	35,172	35,172	35,172	35,172	35,172	35,172	—
5.3	—	5,352	5,352	5,352	42,621	42,621	—
5.25	220,432	247,593	247,241	230,944	230,628	228,524	2,104
5.2	—	10,181	10,181	10,181	—	—	—
5	394,673	404,537	351,052	350,789	336,491	334,936	1,555
4.9	—	21,882	21,882	—	—	—	—
4.8	31,944	36,181	36,181	—	—	—	—
4.75	56,470	56,330	37,576	37,576	13,341	11,994	1,347
4.625	7,458	7,458	7,458	7,458	7,458	7,458	—
4.5	154,818	95,993	61,817	31,706	29,242	27,839	1,402
4.25	41,143	41,143	41,143	41,143	41,143	41,143	—
4	4,239	4,219	4,179	197	197	197	—
3.75	275	247	—	—	—	—	—
3.4875	—	2	2	2	2	2	—
3.25	20,049	18,029	5,760	5,170	5,000	—	5,000
3	5,036	5,036	5,008	5,008	5,005	211	4,794
2.75	3,689	3,689	3,589	3,589	—	—	—
2.5	5,872	5,872	5,872	5,872	5,872	—	5,872
2.325	621	616	607	605	589	589	—
1.5	4,997	4,813	4,627	4,439	4,247	4,247	—
1 (b)	5,738	5,435	5,159	4,850	4,527	4,527	—
Special bonds (c)	59,691	62,882	65,119	75,756	81,467	81,467	—
Total	1,074,959	1,143,954	1,210,489	1,256,337	1,333,720	1,293,253	40,468

(a) \$26,283,000 redeemable in U.K., \$10,766,000 in U.S.A., \$1,324,000 in Canada, \$1,402,000 in Switzerland and \$692,000 in Netherlands. Converted at rates current at the time of the several raisings. Debt redeemable at rates of exchange obtaining at 30 June 1972 totalled \$38,849,000, resulting in a contingent asset of \$1,619,000. (b) Commonwealth Debentures. (c) Rate of interest varies from 4.75 to 6.4 per cent according to date of maturity.

Public Debt According to Year of Maturity, South Australia

At 30 June

Year of Maturity	1968	1969	1970	1971	1972		
					Total	Redeemable In	
						Australia	Other (a)
				\$'000			
1968-69	72,016	—	—	—	—	—	—
1969-70	127,744	125,713	—	—	—	—	—
1970-71	89,676	115,339	138,854	—	—	—	—
1971-72	39,606	62,604	98,552	125,059	—	—	—
1972-73	62,517	61,872	82,966	102,536	102,073	100,725	1,347
1973-74	31,872	35,328	64,854	93,618	134,097	134,097	—
1974-75	65,198	64,455	63,422	66,646	82,082	71,210	10,872
1975-76	60,428	65,320	64,784	74,809	122,659	120,601	2,058
1976-77	31,171	39,129	48,704	45,134	50,474	50,474	—
1977-78	44,436	45,801	56,659	72,451	71,319	68,811	2,508
1978-79	5,988	21,345	43,664	63,334	68,571	64,523	4,048
1979-80	31,436	31,302	31,112	39,043	138,922	37,862	1,060
1980-81	26,164	28,643	28,401	39,130	45,057	42,688	2,369
1981-82	36,169	35,891	35,668	35,448	51,781	46,376	5,405
1982-83	13,052	12,783	12,512	12,244	23,413	20,641	2,772
1983-84	44,362	48,842	48,842	48,842	48,842	48,176	666
1984-85	60,450	60,450	60,450	60,450	60,450	60,450	—
1985-90	171,732	202,799	214,009	247,138	250,463	247,893	2,570
1990-95	3,287	7,945	28,086	27,970	61,122	61,122	—
1995-2000	—	3,626	3,626	3,626	3,626	3,626	—
2000-2005	51,798	68,917	68,917	82,456	82,456	82,456	—
2005-2010	—	—	10,591	10,591	30,521	30,521	—
Optional	5,658	5,652	5,615	5,613	5,594	800	4,794
Interminable	197	197	197	197	197	197	—
Indefinite	2	2	2	2	2	2	—
Total	1,074,959	1,143,954	1,210,489	1,256,337	1,333,720	1,293,253	40,468

(a) \$26,283,000 redeemable in U.K., \$10,766,000 in U.S.A., \$1,324,000 in Canada, \$1,402,000 in Switzerland and \$692,000 in Netherlands. Converted at rates current at the time of the several raisings. Debt redeemable at rates of exchange obtaining at 30 June 1972 totalled \$38,849,000, resulting in a contingent asset of \$1,619,000.

DEPOSIT AND SUSPENSE ACCOUNTS

Reference to these accounts was made in Part 12.1. Although the main function of many of them is to facilitate the allocation of charges and recoups to various headings of revenue and expenditure within the budget sector, some contain, as already noted, substantial transactions which are not reflected in the Budget. Deposit and Suspense accounts showed a credit balance of \$20,481,000 at 30 June 1972.

STATE TAXATION

In addition to those items received into Consolidated Revenue Account the State Government receives certain items of taxation into other accounts. These, together with similar receipts by semi-government authorities, constitute 'total taxation to other accounts' as recorded in the following table.

State Taxation, South Australia^(a)

Tax	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
To Consolidated Revenue (b)	47,188	52,463	58,658	61,550	96,161
To other accounts:					
Road maintenance charges	2,324	2,557	2,839	2,958	3,287
Lottery tax (c)	1,735	1,734	1,817	1,864	1,903
Racing taxes (d)	1,428	1,591	1,849	2,378	3,005
Stamp duty (e)	—	400	937	959	989
Receipts duty (f)	—	—	234	(g)33	-153
Fire Brigades Board (h) .	871	931	1,056	1,144	1,414
Builders Licensing Board.	—	—	—	101	120
Other	83	111	133	118	211
Total to other accounts	6,441	7,324	8,866	9,554	10,776
Total taxation	53,629	59,787	67,524	71,104	106,938
	\$				
Per head of population	43.07	52.84	58.76	60.87	90.34

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) See table on page 552 for details.

(c) Surplus from State Lotteries.

(d) Includes off-course duty paid by Totalizator Agency Board to Hospitals Fund, fractions, on-course totalizator turnover tax, and amounts collected by Betting Control Board for payment direct to racing, etc., clubs.

(e) Stamp duty on third party insurance. Amounts paid into Hospitals Fund.

(f) Received into deposit account in anticipation of refund (\$153,000 in 1971-72).

(g) Net after refund of \$117,000.

(h) Levy on Insurance Companies.

12.4 SEMI-GOVERNMENT FINANCE

REVENUE AND EXPENDITURE

Many semi-government authorities produce annual reports reviewing their activities and most of them publish annual financial statements. In South Australia there is no consolidated tabulation of statistics covering revenue and expenditure of semi-government authorities although a recent extension of public finance work is directed to this end.

Business Undertakings

Some semi-government authorities are regarded as business undertakings because they seek to cover a substantial part of their costs by selling goods and services to the public. The following tables show revenue and expenditure of some of those business undertakings for the financial years 1967-68 to 1971-72. Capital indebtedness refers to the amount outstanding at the end of the relevant period on indebtedness incurred initially for a period exceeding twelve months.

The Electricity Trust of South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Income	56,106	59,788	64,832	69,518	74,883
Operating expenses	42,891	45,956	49,454	(a) 52,997	(a) 58,159
Surplus on operating	13,214	13,831	15,378	16,521	16,724
Debenture interest	12,638	13,619	14,602	15,853	17,058
Net surplus	577	212	776	668	-334
Capital indebtedness.....	248,035	263,327	278,257	291,166	304,660

(a) Includes Statutory Contribution to State Revenue.

The Municipal Tramways Trust

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Income	6,225	6,472	6,696	6,881	6,978
Operating expenses	5,879	6,104	6,293	6,986	7,282
Surplus on operating	346	368	403	-104	-304
Interest charges	431	409	410	356	340
Deficit	85	41	6	460	644
Grant from S.A. Government	20	—	—	480	630
Net deficit	65	41	6	-20	14
Capital indebtedness.....	8,118	8,026	6,929	5,781	7,268

The State Bank of South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Income	7,059	8,018	8,951	10,138	11,266
Management expenses etc...	1,398	1,473	1,644	1,784	2,039
Interest on customers' deposits.....	934	1,070	1,269	1,438	1,532
Interest on advances from the Treasurer of S.A.	3,904	4,330	4,802	5,552	6,415
Net profit	822	1,145	1,236	1,364	1,280
Capital indebtedness.....	88,820	97,037	107,640	121,435	133,802

The Leigh Creek Coal Fund

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Income	5,873	6,022	6,095	5,284	5,366
Operating expenses	5,812	5,966	6,023	5,234	5,093
Surplus on operating	61	56	71	50	273
Interest	61	56	71	50	273
Net surplus	—	—	—	—	—
Capital indebtedness	6,295	5,817	5,632	5,444	5,052

The South Australian Housing Trust

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Income	14,476	15,631	18,000	19,314	20,091
Expenditure	6,294	6,684	7,335	8,335	9,393
Surplus on operating	8,182	8,947	10,665	10,979	10,699
Interest on loan capital	7,182	7,880	8,521	9,265	10,323
Net surplus	1,001	1,066	2,144	1,714	376
Capital indebtedness	213,207	224,824	236,762	253,335	272,156

The Savings Bank of South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Income	19,833	21,041	23,002	25,654	28,965
Management expenses etc.	5,205	5,925	6,608	7,929	9,446
Interest on customers' deposits	13,530	14,768	15,893	17,026	18,311
Net profit	1,098	347	501	699	1,209
Depositors' balances (a)	377,523	398,143	416,307	438,793	469,607

(a) At end of period. Figures include deposit stock.

Metropolitan and Export Abattoirs Board^(a)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Income	4,713	4,465	6,489	7,713	9,078
Operating expenses	4,844	4,270	6,301	7,895	9,441
Surplus on operating	—131	195	189	—181	—364
Interest	107	96	93	90	110
Net Surplus	—238	99	96	—271	—474
Capital Indebtedness	1,925	1,869	1,822	1,772	2,320

(a) Reconstituted as the South Australian Meat Corporation on 9 November 1972.

GRANTS FROM STATE GOVERNMENT

The following table shows grants to a number of semi-government authorities during each of the five years ended 30 June 1972. Grants from Consolidated Revenue and from Loan Fund have been consolidated and the figures represent actual amounts paid to authorities, free of all duplication. Payments for goods and services supplied by semi-government business undertakings are not included in the table. Repayable advances from Loan Fund are also excluded.

**Semi-Government Authorities: Grants From State Government
South Australia**

Name	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Adelaide Children's Hospital (a)	2,889	2,419	2,576	3,535	3,342
Adelaide and Flinders Universities (b)	13,998	13,573	15,308	20,126	20,367
Fire Brigades Board	228	243	277	300	395
Home for Incurables (a) ...	960	634	226	519	1,480
Institute of Medical and Veterinary Science	1,002	916	1,199	1,374	1,703
Municipal Tramways Trust	20	—	—	480	630
National Park Commissioners	114	129	153	198	416
Public Examinations Board	—	—	120	124	140
Queen Victoria Hospital (c).	685	549	831	1,217	1,042
Renmark Irrigation Trust ...	151	243	174	254	298
S.A. Institute of Technology (d)	3,013	4,545	4,577	7,816	6,182
Total	23,060	23,251	25,441	35,943	35,994

(a) Amounts subsequently recouped to Consolidated Revenue from Hospitals Fund are included.

(b) Includes State Government disbursement of Commonwealth grants except those for residential colleges. Includes Waite Agricultural Research Institute.

(c) Excludes grants for maintenance of X-ray tuberculosis services. (d) Includes Commonwealth grants.

LOAN RAISINGS AND DEBT OUTSTANDING

Details of semi-government authorities loan raisings and debt outstanding are included in the tables below. These statistics cover loan raisings and debt of subsidised hospitals, abattoirs boards, vermin boards, the Renmark Irrigation Trust, the Enfield General Cemetery Trust, the Fire Brigades Board, the National Gas Pipelines Authority, the State Planning Authority and Flinders University, in addition to those business undertakings mentioned above under the heading Revenue and Expenditure.

New loans raised during the year include new loan liabilities incurred during the year, loans raised to repay indebtedness to the Government, and interest capitalised. Loans raised and redeemed within the year, increases in overdrafts, and loans raised for conversion or redemption of existing debts are excluded.

Debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalised, and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more, have also been included. Current liabilities such as interest accrued (but not capitalised), trade creditors, amounts held in trust and other debts which are to be repaid in less than one year

are not included. Net overdraft is the gross overdraft of all funds, less all bank credit balances (including fixed deposits), which do not form part of a sinking fund to repay a loan.

The next two tables show, respectively, new money loan raisings and funds provided for redemption of debt for the year ended 30 June 1971 and debt outstanding at 30 June 1970 and 1971. A further table shows debt outstanding at 30 June 1971 according to rate of interest and year of maturity.

**Semi-Government Authorities: New Money Loan Raisings and Funds
Provided for Redemption of Debt, South Australia, 1970-71**

Authority	New Loan Raisings in Australia			Funds for Redemption of Debt (a)		
	From Government Lenders	Other	Total	To Government Lenders	Other	Total
	\$'000			\$'000		
Banking	15,700	—	15,700	1,905	—	1,905
Coal mining	—	—	—	188	—	188
Electricity supply	3,472	11,073	14,545	1,378	280	1,658
Hospitals	—	—	—	—	7	7
Housing	11,750	7,200	18,950	1,534	844	2,377
Natural gas pipeline	2,250	1,050	3,300	—	—	—
Tramways	1,000	—	1,000	2,148	—	2,148
Other	345	926	1,271	36	40	75
Total	34,517	20,249	54,766	7,188	1,173	8,361

(a) Includes amounts credited to Sinking Funds and excludes amounts redeemed from Sinking Funds.

**Semi-Government Authorities: Debt Outstanding, South Australia
At 30 June 1970 and 1971**

Authority	Debt in Australia at					
	30 June 1970			30 June 1971		
	To Government Lenders	Other	Total	To Government Lenders	Other	Total
	\$'000			\$'000		
Banking	107,640	—	107,640	121,435	—	121,435
Coal mining	5,632	—	5,632	5,444	—	5,444
Electricity supply	144,842	133,840	278,683	147,715	143,855	291,569
Hospitals	—	213	213	—	182	182
Housing	192,228	44,534	236,762	202,444	50,891	253,335
Natural gas pipeline	16,500	21,600	38,100	18,750	22,550	41,300
Tramways	6,960	—	6,960	5,815	—	5,815
Other	2,379	1,340	3,719	2,689	2,284	4,972
Total debt	476,181	201,529	677,710	504,292	219,761	724,052
	Annual Interest Payable (\$'000)					
Total interest ...	22,336	11,350	33,685	24,631	12,973	37,604

**Semi-Government Authorities: Debt Outstanding According to
Rate of Interest and Year of Maturity, South Australia**

At 30 June 1971

Rate of Interest	Debt	Year of Maturity	Debt
	\$'000		\$'000
No interest	1,032	Fixed dates:	8,037
Under 3 per cent	90	1971-72	6,948
3 and under 3½ per cent	18,791	1972-73	7,878
3½ and under 4 per cent	10,316	1973-74	7,133
4 and under 4½ per cent	110,218	1974-75	7,763
4½ and under 5 per cent	85,411	1975-76	5,613
5 and under 5½ per cent	269,678	1976-77	12,048
5½ and under 6 per cent	122,322	1977-78	11,029
6 per cent and over	105,280	1978-79	11,200
Not specified	914	1979-80	10,554
		1980-81	4,395
		1981-82	6,759
		1982-83	19,479
		1983-84	58,962
		1984-85 and onwards	36,186
		Not stated	
		Instalments:	
		Yearly or less	503,126
		Not stated	6,804
		Net overdraft	139
Total debt	724,052	Total debt	724,052

12.5 LOCAL GOVERNMENT FINANCE

For the purpose of determining the scope of local government finance statistics, a local government authority is defined as:

- (i) An authority set up under a local government Act to carry out the functions of local government in a defined area (known as a municipality, city, corporate town, or district council area) and which is elected by the residents or property owners, or both, in the area;
- (ii) An authority created or acquired by a local government authority (as defined above) or by two or more local government authorities.

REVENUE AND EXPENDITURE

The expenditure of monies by local government bodies is authorised by the Local Government Act, 1934-1972. Under the Act each council is required to prepare a balance sheet and statement of its accounts for each financial year and these statements are the basis of the statistics published on local government finance.

Regulations which were passed late in 1967 provide for a new format for local government accounting records effective from 1 July 1968. The main conceptual change is the adoption of the accrual method to replace the cash basis of accounting.

Assessments

Assessments for property rating are based upon annual value or land value. Annual value is based on the estimated gross annual rental at which a ratable property would be let from year to year with an allowance, not exceeding one-fourth, to cover all outgoings; whereas land value is an estimate of the value of the land (regardless of structural improvements) included in a property. A council may adopt the 'annual' valuations or the 'land' valuations of the State Valuer-General or may make its own valuation of properties. At 30 June 1972, 44 out of 137 councils based assessments on land value.

Rating of Properties

Under the provisions of the Act, the council may declare a general rate on the property assessed for the financial year ending the thirtieth day of June next after the declaring of the rate. A differential general rate may be declared, for any portion of a local government area, if at least three-quarters in number of the whole of the members of the council vote in favour of declaring the rate; the mayor shall not be included as one of the members of the whole number.

The Act also provides for 'a particular rate for defraying the expense of watering any public street or road or place'. The council may levy this watering rate without the consent of the ratepayers. However, it needs their consent to levy a special rate 'if the general rate is insufficient for carrying out any purpose by this or any other Act authorised to be carried out by the council'. These and other provisions are contained in Part XII.

Government Grants

Government grants for construction and maintenance of roads are covered by Part XVI of the Act; Section 299 (1) and (2) are as follows.

299 (1) The Governor may direct that in any financial year there shall be payable out of the Highway Fund established under the Highways Act, 1926-1972, an amount as grants to councils.

(2) Subject to Section 300, the said amount shall be divided among such councils, and in such proportions, as the Governor, on the recommendation of the Commissioner of Highways may think fit.

Section 300 sets the division of the total grants between metropolitan and non-metropolitan councils at 25 per cent and 75 per cent respectively. ('Metropolitan' here means the 21 local government areas constituting the metropolitan area under the Local Government Act: this was the metropolitan area for population census purposes before the Census of 30 June 1966.) Section 300 (a) makes provision for additional grants for roads to the Corporation of the City of Adelaide.

Revenue Transactions

The following tables show revenue transactions for local government authorities for 1969-70. Values are prepared on an accrual basis as distinct from the cash basis used for years before 1968-69.

Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Income
South Australia, 1969-70

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
Taxation:			
Rates:			
Declared for year	18,809	8,629	27,438
Fines on overdue rates	68	28	96
<i>Ex gratia</i> payments in lieu of rates	29	32	62
Total rates	18,906	8,690	27,596
Licences and permits:			
Building	249	48	298
Dog	90	57	147
Other	82	30	112
Total licences and permits ..	421	136	557
Total taxation	19,327	8,825	28,152
Public works:			
Reimbursements for roadworks:			
State Government (b)	814	401	1,215
Ratepayers (moiety)	815	209	1,024
Other	292	56	348
Sewerage and effluent drainage fees	45	130	175
Total public works	1,966	796	2,762
Public services:			
Ferries	—	190	190
Fire protection	94	101	196
Hospitals and health (including cemeteries, etc.)	100	72	172
Libraries	86	27	113
Sanitary and garbage	76	142	218
Street lighting	2	16	19
Tourism	9	46	55
Traffic and parking	1,086	1	1,088
Vermin control	—	27	27
Weed control	22	127	149
Other	34	40	74
Total public services	1,511	791	2,301
Council properties:			
Current:			
Commercial premises, n.e.i.	34	18	52
Halls and theatres	240	74	315
Houses	131	57	188
Offices	4	52	56
Parks, gardens and other recreational facilities	795	408	1,203
Swimming pools	379	86	465
Markets and other	365	53	418
Capital (c):			
Land and buildings	49	18	67
Plant and machinery (mainly roadmaking)	37	16	53
Other	8	—	8
Total council properties ..	2,043	781	2,824

Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Income
South Australia, 1969-70 (continued)

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
Government grants for roadworks:			
Grants (d)	442	3,634	4,076
Reimbursements (e)	1,975	4,679	6,654
Total Government grants for roadworks	2,417	8,314	10,730
Other income:			
Fines (mainly traffic and parking)	412	5	417
Interest	455	79	534
Reimbursements for private works	131	464	595
Sale of surplus materials	39	48	86
Other	52	102	154
Total other income	1,089	697	1,786
Total income	28,352	20,204	48,556

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudla Wirra. (b) Mainly reinstatements. (c) These values are understated to the extent that some councils report expenditures net of trade-ins and do not show trade-in values as income from the sale of assets. (d) Other grants and subsidies are included under respective functional headings above. (e) For work done on behalf of Highways Department.

Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Expenditure
South Australia, 1969-70

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
General administration	2,399	1,623	4,022
Debt services:			
Interest;			
On loans	2,421	395	2,817
On overdraft	12	35	47
Principal redeemed	2,081	1,176	3,257
Total debt services	4,515	1,607	6,122
Public works:			
Roads, streets and bridges;			
Construction	6,709	9,829	16,538
Maintenance	3,349	3,339	6,689
Road, etc. plant—running costs unallocated .	415	454	869
Sewerage and effluent drains;			
Construction	72	36	108
Maintenance	83	34	117
Contributions to stormwater drainage schemes (b)	398	135	533
Total public works	11,026	13,827	24,853

Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Expenditure
South Australia, 1969-70 (continued)

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
Public services:			
Building Act	299	51	350
Ferries	1	190	190
Fire protection	495	219	714
Hospitals and health (including cemeteries, etc.) (c)	1,145	602	1,747
Libraries	314	78	391
Sanitary and garbage	1,082	308	1,390
Street cleaning	324	4	327
Street lighting	817	204	1,021
Tourism	23	58	81
Town planning	136	1	138
Traffic and parking	822	15	837
Vermin control	14	48	63
Weed control	73	289	361
Other	92	59	151
Total public services	5,635	2,125	7,760
Council properties:			
Current;			
Halls and theatres	336	160	496
Houses	52	60	112
Offices	21	48	69
Parks, gardens and other recreational facilities	2,611	774	3,386
Swimming pools	204	88	292
Markets and other	152	17	169
Capital (d);			
Land and buildings,			
Halls and theatres	82	5	87
Offices	254	25	279
Parks, gardens and other recreational facilities	500	154	654
Other	373	186	558
Plant and machinery,			
Roadmaking	674	793	1,467
Other	133	50	184
Other assets,			
Furniture and fittings	125	54	180
Other	5	1	6
Total council properties ..	5,524	2,416	7,939
Other expenditure:			
Cost of private works	146	418	564
Donations to charitable organisations, clubs, etc.	64	58	122
Other	77	55	133
Total other expenditure ..	288	531	819
Total expenditure	29,386	22,129	51,515

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudia Wirra. (b) Expenditures in respect of South Western Suburbs drainage scheme are included under debt services above. (c) Includes hospital subsidy to jointly-owned business undertaking. (d) These values are understated to the extent that some councils report expenditures net of trade-ins.

Business Undertakings

Some local authorities operate electricity undertakings, water supply services and quarries. In addition several authorities jointly administer a hospital and transactions of that organisation are included under other business undertakings. Expenditures by authorities for goods and services supplied by their business undertakings are included both in expenditures from general, etc. funds and in income of the business undertakings.

Loan raisings and subsequent expenditures are included under Loan Fund income and expenditure.

Local Government Authorities
Business Undertakings Income and Expenditure
South Australia, 1969-70

Current Account Transactions (a):		\$,000	
Electricity Undertakings;			
Current income,			
Electricity sales	886		
State Government tariff subsidies	192		
Other	27		
Total current income		1,105	
Current expenditure,			
Generation and distribution	464		
Purchase of electricity	408		
Depreciation	59		
Debt services,			
Interest	45		
Principal redeemed	63		
Administration and other	114		
Total current expenditure		1,153	
Deficit			47
Quarries;			
Current income		201	
Current expenditure		214	
Deficit			13
Other;			
Current income,			
Goods and services	803		
Maintenance subsidies,			
State Government	105		
Local authorities	48		
Total current income		956	
Current expenditure,			
Goods and services		839	
Surplus			116
Surplus (all undertakings)			56

Local Government Authorities
Business Undertakings Income and Expenditure
South Australia, 1969-70 (continued)

Capital Account Transactions (b):		\$'000
Expenditure on construction or purchase of assets;		
Electricity undertakings,		
Distribution equipment	86	
Plant and machinery	33	
Meters and other	35	
Total electricity undertakings		154
Other (c),		
Buildings	104	
Other	14	
Total other		117
Total Capital Expenditure (b)		271

(a) Transactions relating to construction or purchase of capital assets are not taken into account in arriving at surplus. (b) Excludes loan fund transactions. (c) State Government capital subsidy received during the year was \$84,000.

LOAN FUND INCOME AND EXPENDITURE

The following table shows the major items of loan fund income and expenditure for 1969-70. Transaction values are prepared on an accrual basis as distinct from the cash basis used before 1968-69.

Local Government Authorities: Loan Fund Income and Expenditure
South Australia, 1969-70

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
Income:		\$'000	
Loans raised	6,802	3,132	9,934
Other	221	2	223
Total income	7,023	3,134	10,157
Expenditure:			
Public Works;			
Roads, streets and bridges,			
Construction	2,249	401	2,650
Maintenance	26	50	76
Stormwater drains	1,014	170	1,184
Sewerage and effluent drains	109	335	444
Total public works	3,398	956	4,354

Local Government Authorities: Loan Fund Income and Expenditure
South Australia, 1969-70 (continued)

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
	\$'000		
Construction or Purchase of Assets;			
Land and buildings,			
Halls and theatres	542	147	689
Offices, etc.	125	89	215
Recreation reserves	498	295	793
Markets and other (including off-street car parks)	2,334	132	2,467
Plant and machinery,			
Roadmaking	33	722	755
Other	8	28	36
Furniture and equipment	10	9	18
Total construction or purchase of assets	3,550	1,422	4,973
Business Undertakings (b)	—	487	487
Total Expenditure	3,550	1,909	5,460

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudla Wirra. (b) Includes land, buildings, plant, etc.

LOAN RAISINGS AND DEBT OUTSTANDING

Local government authorities loan raisings and debts outstanding are shown in the following table. The definitions of 'new loans raised' and 'debt', given on page 568 under 'Loan Raisings and Debt Outstanding', apply to the statistics in this section also.

The tables given below show new money loan raisings and debt outstanding for the years 1961-62 to 1970-71. A further table shows debt outstanding at 30 June 1971 according to rate of interest.

**Local Government Authorities: New Money Loan Raisings and
Funds Provided for Redemption of Debt, South Australia**

Year	New Loan Raisings in Australia			Funds for Redemption of Debt(a)		
	From Govt	Other	Total	To Govt	Other	Total
	\$'000					
1961-62	831	3,613	4,444	807	643	1,450
1962-63	1,157	3,959	5,116	860	778	1,638
1963-64	1,518	5,118	6,636	917	1,258	2,175
1964-65	726	5,391	6,117	1,038	1,219	2,258
1965-66 (b)	3,263	5,282	8,545	1,144	1,331	2,474
1966-67	2,291	6,981	9,272	1,101	1,817	2,917
1967-68	1,027	7,365	8,392	1,009	1,853	2,862
1968-69	470	7,455	7,925	905	2,068	2,973
1969-70	504	9,430	9,934	822	2,481	3,303
1970-71	939	10,338	11,277	671	2,851	3,522

(a) Includes amounts credited to Sinking Funds and excludes amounts redeemed from Sinking Funds: both these figures are small in South Australia.

(b) From 1965-66 includes South-Western Suburbs Drainage Scheme.

**Local Government Authorities: Debt Outstanding and
Annual Interest Payable, South Australia**

Year	Debt in Australia			Annual Interest Payable		
	To Govt	Other	Total	To Govt	Other	Total
	\$'000					
1961-62	3,365	15,933	19,298	87	837	924
1962-63	3,673	18,953	22,626	85	1,011	1,096
1963-64	4,296	23,226	27,522	99	1,234	1,333
1964-65	4,069	27,235	31,304	103	1,443	1,546
1965-66 (a)	6,185	31,160	37,345	256	1,674	1,931
1966-67	7,368	36,350	43,718	324	1,980	2,305
1967-68	7,380	42,079	49,459	337	2,323	2,660
1968-69	6,956	47,479	54,435	316	2,645	2,961
1969-70	6,637	54,389	61,025	290	3,106	3,396
1970-71	6,914	62,198	69,112	304	3,719	4,023

(a) From 1965-66 includes South-Western Suburbs Drainage Scheme.

**Local Government Authorities: Debt Outstanding
According to Rate of Interest and Purpose, South Australia
At 30 June 1971**

Rate of Interest	Debt	Purpose	Debt
	\$'000		\$'000
No interest	1,021	Light and power	1,566
Under 3 per cent	—	Water supply, sewerage and drainage (a)	14,085
3 and under 3½ per cent	37	Roads, streets, bridges and foot- paths	30,182
3½ and under 4 per cent	78	Council properties	14,989
4 and under 4½ per cent	402	Parks, gardens and recreational reserves	5,823
4½ and under 5 per cent	1,617	Other (including not stated) ..	2,467
5 and under 5½ per cent (a)	14,928		
5½ and under 6 per cent	33,012		
6 per cent and over	17,993		
Not specified	25		
Total debt	69,112	Total debt	69,112

(a) Includes South-Western Suburbs Drainage Scheme.

From 1965-66 the tables include details relating to the South-Western Suburbs Drainage Scheme. Works connected with the scheme to provide effective flood-water drainage commenced in 1959-60 with all initial payments being made from the State Loan Fund. When actual expenditures reached \$2,000,000 an estimate was formed of the total anticipated costs of the scheme and the relevant local government authorities then became liable for progressive repayment (over fifty-three years) of half the anticipated total expenditure including interest. Indebtedness was allocated to councils in 1965-66 (\$2,159,000) and 1966-67 (\$210,000): liability of councils is subject to review when total costs become known.

PART 13

PRIVATE FINANCE

13.1 BANKING AND CURRENCY

BANKING

The banking system in Australia comprises a central bank (the Reserve Bank of Australia); fourteen trading banks (one owned by the Commonwealth, three by State Governments, and ten privately owned); the Commonwealth Development Bank and the Australian Resources Development Bank Ltd (specialist banks, owned respectively by the Commonwealth Government and a consortium of the seven major trading banks); and thirteen savings banks of which one is owned by the Commonwealth and three by State Governments, two are trustee savings banks, and seven are associated with privately owned trading banks.

LEGISLATION

Under Section 51 of the Commonwealth Constitution Act the Commonwealth Parliament has power to legislate with respect to 'Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money'.

The principal Commonwealth Acts at present in force relating to banking are:

- (a) The *Reserve Bank Act* 1959-1966, providing for the constitution and management of the Reserve Bank and the management of the Australian note issue;
- (b) The *Commonwealth Banks Act* 1959-1968, providing for the constitution and management of the Commonwealth Banking Corporation; and
- (c) The *Banking Act* 1959-1967, providing for the regulation of banking and the protection of the currency and public credit of Australia.

The *Banking Act* 1959-1967, which replaced the *Banking Act* 1945-1953, applies to all banks operating in Australia or its Territories, except State banks trading in their own State. The objects of the Act are (1) to provide a uniform

legal framework for regulating the banking system, (2) to safeguard depositors from loss, (3) to provide for the co-ordination of banking policy under the direction of the Reserve Bank, (4) to control bank interest rates and the volume of credit in circulation, (5) to mobilise and to provide machinery for the control of foreign exchange and gold reserves of the Australian economy.

State banking legislation relates to the incorporation of banks and the constitution and management of State Banks. South Australian Acts at present in force relating to banking are the State Bank Act, 1925-1972 and The Savings Bank of South Australia Act, 1929-1971.

THE RESERVE BANK

The Reserve Bank of Australia functions as a Central Bank, controls the Australian note issue through the Note Issue Department, provides special banking facilities through the Rural Credits Department, and acts as banker to the Governments of the Commonwealth and some of the States. Liabilities and assets of each department of the Reserve Bank are shown in the table below.

Reserve Bank of Australia, Liabilities and Assets at 30 June 1972

Particulars	Central Bank Department	Note Issue Department	Rural Credits Department	Total (a)
	LIABILITIES (\$'000)			
Capital	40,000	—	9,428	49,428
Reserve funds	25,568	—	10,629	36,197
Special Reserve—International Monetary Fund Special Drawing Rights	201,616	—	—	201,616
Development fund	—	—	1,069	1,069
Notes on issue	—	1,508,162	—	1,508,162
Deposits, bills payable and other:				
Statutory reserve deposits	554,222	—	—	554,222
Other trading bank deposits	88,936	—	—	88,936
Savings bank deposits	802,866	—	—	802,866
Other	2,094,851	59,200	239,684	(a) 1,361,582
Total	3,808,060	1,567,362	260,809	(a) 4,604,078
	ASSETS (\$'000)			
Gold and balances held abroad (b)	2,680,467	296,629	—	2,977,096
Other overseas securities	376,238	234,677	—	610,915
Australian Government securities	299,210	199,544	—	498,754
All other	452,145	836,512	260,809	(a) 517,313
Total	3,808,060	1,567,362	260,809	(a) 4,604,078

(a) Inter-departmental accounts totalling \$1,032,154,000 have been offset in totals.

(b) Includes IMF Special Drawing Rights.

Further details of the activities of the Reserve Bank are given in the *Official Year Book of the Commonwealth of Australia*.

THE COMMONWEALTH BANKING CORPORATION

The Commonwealth Banking Corporation was established under the *Commonwealth Banks Act 1959* and commenced operations on 14 January 1960. It is the controlling body for the Commonwealth Trading Bank, the Commonwealth Savings Bank and the Commonwealth Development Bank.

Particulars relating to the Development Bank are given below, while details of the other two banks are included in later sections relating to trading banks and savings banks.

COMMONWEALTH DEVELOPMENT BANK

The Development Bank is a supplementary source of finance for primary production and for the establishment or development of industrial undertakings and does not compete with conventional lenders, but provides financial help when such help is thought desirable and finance is not otherwise available on suitable terms. The primary consideration of the bank's operations in deciding whether finance should be made available is the prospects of success and not necessarily the value of security available.

In South Australia all the major private banks and the State Bank of South Australia are agents of the Development Bank for the receipt of loan applications. The average of weekly figures for loans, advances and bills discounted for the month of June in the years 1969 to 1972 were \$249, \$264, \$281 and \$294 million respectively. Of the last mentioned amount, \$24.8 million was advanced in South Australia.

The capital of the Development Bank consists of the capital of the Mortgage Bank and Industrial Finance Department of the Commonwealth Bank immediately before 14 January 1960, \$10 million provided by the Reserve Bank, \$30 million provided by the Commonwealth Government in the 1961-62 and 1963-64 Budgets, and such other sums as are provided by the Commonwealth Development Bank Reserve Fund. The net profits of the bank are paid to this reserve fund.

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. Its function is to provide finance for the development of Australia's natural resources mainly in the form of refinanced trading bank loans but also as a direct lender. The average of weekly figures for loans and advances outstanding for the month of June in 1969 to 1972 were \$61, \$163, \$261 and \$328 millions respectively. Such finance is provided from the Australian capital market (mainly in the form of public issues of transferable deposits) and from overseas borrowings, although these declined sharply in the year ended 30 September 1972.

Authorised capital of the Bank is \$10 million of which \$3 million has been issued as fully paid capital. The member banks have approximately equal shareholdings. Although not a shareholder, the Reserve Bank of Australia initially subscribed \$2.1 million in loan capital on which a fixed rate of interest, related to market rates, is paid.

TRADING BANKS

For statistical purposes trading banks are often divided into two groups, 'major' and 'other'. The 'major trading banks' comprise the six private trading banks and the Commonwealth Trading Bank, all of which have interests throughout Australia: together they account for approximately 90 per cent of all general trading bank assets in Australia.

The group 'other trading banks' consists of the three State Government banks (including the State Bank of South Australia) which trade mainly in their respective States, and four other banks (three of them overseas institutions) whose

business is either specialised (*e.g.* financing overseas trade), or both specialised and limited to particular areas.

Banks Originating in South Australia

With a subscribed capital of \$500,000 in 50,000 shares of \$10 each, the first trading bank promoted in South Australia was the Bank of Adelaide which was opened for business on 11 December 1865 and now has branches in all States and the Australian Capital Territory.

Pursuant to the State Advances Act of 1895 the State Bank of South Australia was constituted and 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. In 1925 legislation was enacted which enlarged the scope of the activities of the bank by making provision for loans on overdraft and all business of general banking. The State Bank also administers the under-mentioned Acts on behalf of the State:

Advances for Homes Act, 1928-1970;

Advances to Settlers Act, 1930-1972;

Loans to Producers Act, 1927-1962;

Advances for wire-netting and vermin proof materials under the Vermin Act, 1931-1967;

Loans for Fencing and Water Piping Act, 1938-1952;

Student Hostels (Advances) Act, 1961.

The State Bank of South Australia does not operate branches or agencies outside the State.

Assets

The following table gives some particulars of assets held by trading banks in Australia. The figures quoted are averages of assets at the close of business on each Wednesday in June 1972.

Trading Banks in Australia: Assets, June 1972^(a)

Assets	Major Trading Banks	Other Trading Banks	All Trading Banks
		\$'000	
Gold, bullion and Australian notes	174,922	10,243	185,165
Cash with Reserve Bank	3,410	1,515	4,924
Australian public securities:			
Commonwealth and State	1,653,075	166,464	1,819,540
Local and semi-government authorities	14,764	14,408	29,172
Statutory Reserve Deposit Account with Reserve Bank	555,740	2,489	558,230
Loans to authorised dealers in short term money market	205,555	44,209	249,764
Other loans, advances and bills discounted	5,256,997	618,719	5,875,716
Bank premises, furniture and sites	135,255	32,377	167,632
Other assets	710,973	42,593	753,566
Total assets	8,710,689	933,017	9,643,706

(a) Excludes inter-branch accounts and contingencies.

Under the provisions of the *Banking Act 1959-1967* all trading banks (except State banks trading in their own State) have limitations on their portfolio of assets. These banks are required to hold a certain percentage of total deposits in the form of liquid assets or government securities (this minimum LGS ratio has remained at 18 per cent since 1962). They are also required to maintain a fixed percentage of total deposits as a deposit with the Reserve Bank (Statutory Reserve Deposit): this SRD ratio for major trading banks was reduced from 10.0 per cent to 9.4 per cent on 29 September 1970, to 8.9 per cent on 15 April 1971, to 7.1 per cent on 20 December 1971 and to 6.6 per cent on 8 November 1972.

Branches and Agencies

Of the fourteen trading banks which operate in Australia, the eight banks listed below conduct business in South Australia:

Government banks:

Commonwealth Trading Bank of Australia
State Bank of South Australia

Private banks:

Australia and New Zealand Banking Group Ltd
The Bank of Adelaide
Bank of New South Wales
The Commercial Bank of Australia Ltd
The Commercial Banking Co. of Sydney Ltd
The National Bank of Australasia Ltd

The number of branches of trading banks decreased in both 1970-71 and 1971-72 mainly because of the closure of branches of private banks in country areas. During the four years 1968-69 to 1971-72, the number of agencies of trading banks has decreased significantly, largely because of decreases in the number of private bank agencies in both the metropolitan and country areas.

Trading Banks: Branches and Agencies at 30 June, South Australia

Bank	Branches					Agencies	
	1968	1969	1970	1971	1972	1971	1972
Commonwealth Trading Bank . . .	45	45	45	49	49	45	41
State Bank of South Australia . . .	35	35	35	35	35	16	16
Private banks	357	363	363	353	351	183	149
Total—Metropolitan area (a) . .	210	214	217	216	220	120	92
Country	227	229	226	221	215	124	114
Total State	437	443	443	437	435	244	206

(a) As determined by individual banks for administrative purposes.

Deposits, Advances and Debits to Customers Accounts

Deposits not bearing interest are on current account and may be withdrawn on demand. Deposits bearing interest include some deposits on current account, but most are deposits for fixed terms ranging from three months to four years

and for large amounts from thirty days to four years. Until December 1970 the maximum term for fixed deposits was two years.

During the ten years 1962-63 to 1971-72, the proportion of deposits bearing interest rose steadily each year (with the exception of a slight decrease in 1966-67) from 40.6 per cent to 53.4 per cent of total deposits.

Loans and advances exceeded deposits in two years during the 1930s but because of a reduction in advances made during the 1939-45 War coupled with a rapid increase in deposits, the proportion of loans and advances to total deposits dropped to a low of approximately 30 per cent in the late 1940s. In the ten years 1962-63 to 1971-72, this percentage has risen from 61.6 per cent to 89.3 per cent, with a peak of 91.7 per cent in 1970-71.

Debits to customers accounts generally represent the total of all cheques drawn by customers of the banks.

Trading Banks: Balance of Deposits and Advances and Debits to Customers Accounts, South Australia

Year	Depositors' Balances (a)			Loans, Advances, and Bills Discounted (a) (b)	Debits to Customers Accounts (c)	Proportion to Total Deposits (a)	
	Bearing Interest	Not Bearing Interest	Total			Deposits Bearing Interest	Loans, Advances, and Bills Discounted (b)
			\$'000			Per Cent	
1967-68	190,465	199,647	390,110	321,892	201,841	48.8	82.5
1968-69	205,262	200,405	405,666	354,782	224,360	50.6	87.5
1969-70	216,457	207,561	424,017	374,575	243,378	51.0	88.3
1970-71	225,318	206,547	431,863	396,183	269,835	52.2	91.7
1971-72	251,057	218,926	469,983	419,682	293,329	53.4	89.3

(a) Average of balances at close of business on Wednesdays during the period.

(b) Excludes loans to authorised dealers in the short term money market.

(c) Weekly average, i.e. average of debits during weeks ending on Wednesdays in the period. Includes the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank.

Separate details for 1971-72 for each of the Government banks and for all private banks are as follows.

Trading Banks: Balance of Deposits and Advances, South Australia 1971-72^(a)

Bank	Depositors' Balances			Loans, Advances, and Bills Discounted (b)
	Bearing Interest	Not Bearing Interest	Total	
	\$'000			
Commonwealth Trading Bank	38,106	32,381	70,486	43,059
State Bank of South Australia	28,294	11,272	39,565	147,536
Private trading banks	184,659	175,273	359,931	229,087
Total	251,057	218,926	469,983	419,682

(a) Average of balances at close of business on Wednesdays during the period.

(b) Excludes loans to authorised dealers in the short-term money market.

The following table relates to trading bank advances outstanding for all banks in South Australia and the Northern Territory except the State Bank of South Australia. Advances are classified according to type of borrower in July of each year from 1968 to 1972.

Major Trading Banks, South Australia and Northern Territory
Advances to Resident Borrowers by Type of Borrower^{(a) (b)}
(At Second Wednesday in July)

Classification	1968	1969	1970	1971	1972
	\$ million				
Business advances:					
Agriculture, grazing and dairying;					
Mainly sheep grazing	28.2	27.3	27.5	24.5	21.1
Mainly wheat growing	24.2	22.8	24.7	22.5	20.7
Mainly dairying and pig raising	5.5	5.7	5.9	5.1	5.5
Other	21.0	24.4	24.9	25.9	28.0
Total agriculture, etc.	(c)79.0	(c)80.1	(c)83.0	(c)78.1	(c)75.3
Manufacturing	31.8	40.1	37.7	35.9	47.7
Transport, storage and communication	3.5	4.2	6.8	6.5	5.3
Finance;					
Building and housing societies	0.9	0.9	1.2	0.2	0.2
Pastoral finance companies	3.9	5.3	7.7	7.5	6.0
Hire-purchase and other finance companies	2.2	2.9	3.2	3.4	3.7
Other	2.5	2.7	4.0	4.0	5.7
Total finance	9.4	11.8	16.1	15.1	15.6
Commerce;					
Retail trade	24.5	24.1	25.7	29.4	30.3
Wholesale trade (d)	16.2	22.1	21.1	19.5	14.6
Total commerce	40.7	46.2	46.9	49.0	44.9
Building and construction	6.7	7.3	8.4	9.7	11.1
Other business	20.5	25.6	27.7	32.4	38.8
Unclassified	2.5	2.2	3.5	2.6	2.3
Total business advances	194.1	217.6	230.1	229.2	241.0
Distribution of business advances:					
To companies	95.0	116.5	121.3	120.5	126.6
Other	99.1	101.1	108.8	108.7	114.5
Advances to public authorities	0.7	0.5	0.4	0.7	0.7
Personal advances:					
Building or purchasing own home	16.0	16.5	16.0	17.4	21.8
Other	20.5	24.2	29.3	34.0	43.1
Total personal advances	36.5	40.7	45.4	51.3	64.9
Advances to non-profit organisations	3.2	3.2	3.2	3.0	2.9
Total advances to resident borrowers .	234.5	262.0	279.1	284.3	309.6

(a) Covers advances by the Commonwealth Trading Bank and all private trading banks, but excludes advances by the State Bank of South Australia.

(b) 'Resident borrowers' comprise all institutions (including branches of overseas institutions) engaged in business in Australia and individuals permanently residing in Australia.

(c) Includes farm development loan component.

(d) Includes temporary advances to woolbuyers.

Interest Rates

Bank interest rates are not formally determined under the Banking Act. Maximum rates are fixed after discussions between the Reserve Bank and the banks, and with the approval of the Treasurer. State Government banks, although not bound by rulings of the Reserve Bank, tend to broadly conform to them, except for some minor traditional differences which remain.

Interest rates are one of the implements of monetary and banking policy. Trading banks interest rates were increased on 1 August 1969, 9 March 1970 and 8 December 1970 and reduced on 4 February 1972.

The following table shows trading banks interest rates current at 30 November 1972, the dates from which they became operative and the rates which were applicable before those dates.

Trading Banks, Interest Rates at 30 November 1972

Particulars	Rate per Annum	Date from which Operative	Previous Rate per Annum
	%		%
		LENDING RATES	
Overdraft:			
Under \$50,000 (a)	7.75	4.2.72	8.25
\$50,000 and over	(b)	4.2.72	8.25
Unsecured personal loans (a) (c)	6.25	4.2.72	6.50
		DEPOSIT RATES	
Fixed deposits (less than \$50,000) (a):			
3 months and less than 12 months	4.30	4.2.72	5.00
12 months and less than 2 years	4.50	4.2.72	5.00-5.30
2 years and less than 4 years	5.00	4.2.72	5.30-6.00
4 years	5.50	4.2.72	6.50
Fixed deposits (\$50,000 and over) (a) (b):			
30 days to 4 years	6.50	4.2.72	5.50-6.50
Certificates of deposit (\$50,000 and over) (a) (b):			
3 months to 24 months	6.50	4.2.72	5.50

(a) Maximum rate.

(b) Actual rates are a matter for negotiation between banks and their customers.

(c) Flat rate.

SAVINGS BANKS

The Savings Bank of South Australia

The Savings Bank of South Australia commenced operations on 11 March 1848 following the enactment of an ordinance in 1847. At 30 June 1972 there were 137 branches, 904 agencies and 843 school bank agencies within South Australia. The Savings Bank of South Australia does not operate branches in other Australian States but has agent banks to act for it in other States and in the United Kingdom.

The total of depositors' balances first exceeded \$200 million in 1956, reached \$400 million in July 1969 and at 30 June 1972 amounted to more than \$469 million. During the year 1971-72 the Bank made loans amounting to \$26.4 million to depositors for housing, for rural development and for institutional and other purposes and at 30 June 1972 the total of such loans outstanding was in excess of \$183 million.

The Savings Bank of South Australia, Summary of Business

Year	Operative Accounts (a)	Cash Turn- over (b)	Depositors' Balances (a)	Housing, Rural and Other Loans (a)	Government Securities Held (a)
	No.	\$m	\$'000	\$'000	\$'000
1967-68	902,270	777	377,523	151,291	210,674
1968-69	913,914	862	398,143	160,047	219,772
1969-70	919,131	989	416,307	166,587	227,966
1970-71	944,040	1,147	438,793	173,113	237,561
1971-72	962,023	1,351	469,607	183,743	247,544

(a) At end of year, as published in the Bank's Annual Report.

(b) Sum of deposits and withdrawals; includes some duplication from amounts transferred by depositors from one type of account to another.

Development of Savings Banks

Post Offices in South Australia acted as agencies for The Savings Bank of South Australia until 1912 when they became agents of the Commonwealth Bank from the date of its establishment.

Savings bank business was conducted entirely by these two government banks until 1956, when the first of the private banks commenced this activity. Savings bank facilities in South Australia are now provided by the eight banks listed below.

Government:

Commonwealth Savings Bank of Australia
The Savings Bank of South Australia

Private:

Australia and New Zealand Savings Bank Ltd
The Bank of Adelaide Savings Bank Ltd
Bank of New South Wales Savings Bank Ltd
The Commercial Savings Bank of Australia Ltd
CBC Savings Bank Ltd
The National Bank Savings Bank Ltd

The prime object of the foundation of savings banks in Australia was the encouragement of thrift, and deposits as small as 10 cents are still accepted. Generally, depositors cannot operate on their savings accounts by means of cheques, although most savings banks extend this facility to non-profit organisations such as friendly, co-operative and charitable societies, and in addition The Savings Bank of South Australia provides similar facilities for other depositors. Savings bank accounts have the advantages that deposits may be withdrawn on demand and that depositors receive interest on their minimum monthly balances. No charge is made by the banks for keeping savings accounts and the cheque accounts of some non-profit organisations. However, early in 1970 concessions relating to charges and interest on trading accounts were withdrawn from hospital and medical benefit organisations, building societies, credit unions and investment clubs.

Assets

Under the provisions of the *Banking Act 1959-1967* all savings banks (except State banks trading in their own State) are required to maintain in prescribed investments an amount that together with cash on hand in Australia is not less than the amount on deposit in Australia with the savings bank. These prescribed investments include deposits with the Reserve Bank, deposits with or loans to other banks, Commonwealth or State securities, loans for housing and loans to authorised dealers in the short-term money market. As from October 1970, loans to the Australian Banks Export Refinance Corporation Limited are also a permissible form of investment following an amendment to the Banking (Savings Banks) Regulations.

The amendment also reduced from 65 per cent to 60 per cent, the percentage of depositors' funds which a savings bank subject to the Banking Act must hold in cash or approved securities. This investment ratio was last changed in 1963. Savings banks may not accept deposits from a profit-making body unless it is acting as a trustee for a non-profit-making beneficiary.

Details of assets of all savings banks in Australia at 30 June 1972 are as follows.

Savings Banks: Assets in Australia, 30 June 1972^(a)

Assets	Commonwealth Savings Bank	State Savings Banks	Trustee Savings Banks (b)	Private Savings Banks	Total
	\$'000				
Coin, bullion and Australian notes	4,443	10,937	495	3,099	18,974
Deposits with Reserve Bank	369,760	132,302	950	299,850	802,862
Deposits in Australia with trading banks	79,780	44,772	6,552	30,712	161,816
Australian public securities:					
Commonwealth and States . .	1,316,352	406,561	17,090	666,737	2,406,740
Local and semi-government authorities	545,725	572,109	48,483	983,287	2,149,604
Loans, advances and bills discounted :					
Housing	941,772	678,282	32,324	968,204	2,620,582
Other	72,181	114,875	8,517	73,752	269,325
All other assets (c)	228,013	107,295	16,048	91,240	442,596
Total assets	3,558,026	2,067,133	130,459	3,116,880	8,872,498

(a) Excludes inter-branch accounts.

(b) Trustee banks operate only in Tasmania.

(c) Includes loans to authorised dealers in the short-term money market.

Branches and Agencies

The total number of savings bank branches decreased in both 1970-71 and 1971-72 because of the closure of branches of private banks in country areas.

The total number of savings bank agencies has fallen in each of the four years 1968-69 to 1971-72, mainly because of a reduction in the number of private savings bank agencies.

Savings Banks: Branches and Agencies at 30 June, South Australia

Bank	Branches					Agencies	
	1968	1969	1970	1971	1972	1971	1972
Commonwealth Savings Bank	74	75	76	78	78	760	735
Savings Bank of South Australia . .	133	134	135	136	137	886	904
Private Banks	357	363	363	353	350	739	663
Total—Metropolitan area (a).	296	295	306	306	310	1,529	1,498
Country	268	277	268	261	255	856	804
Total State	564	572	574	567	565	2,385	2,302

(a) As determined by individual banks for administrative purposes.

Deposits

Until 1961, the total of depositors' balances in savings banks per head of population was higher in South Australia than in any other State. Although deposits per head are now higher in Victoria than in South Australia, the figure for this State is still well above the Australian average.

Savings Banks: Accounts and Deposits, South Australia and Australia

At 30 June	South Australia			Australia		
	Accounts Operative (a)	Deposits	Deposits per Head of Population	Accounts Operative (a)	Deposits	Deposits per Head of Population
	'000	\$m	\$	'000	\$m	\$
1968	1,418	643.7	574	13,823	6,221.5	519
1969	1,472	691.8	607	14,534	6,707.1	548
1970	1,546	733.1	633	15,291	7,104.7	569
1971	1,623	787.9	672	16,019	7,634.5	600
1972	1,705	874.1	737	16,726	8,391.4	648

(a) Excludes school bank and inoperative accounts.

The Savings Bank of South Australia has always held a very high proportion of the total of depositors' balances in this State, although its share of total on deposit has dropped from about 75 per cent in 1961 to approximately 54 per cent in 1972. In that time the private banks have increased their share from less than 12 per cent to approximately 23 per cent.

Savings Bank Deposits, South Australia

At 30 June	Commonwealth Savings Bank	Savings Bank of South Australia	Private Savings Banks	Total
	\$ million			
1968	142.2	377.5	123.9	643.7
1969	153.6	398.1	140.1	691.8
1970	165.0	416.3	151.7	733.1
1971	180.2	438.8	168.9	787.9
1972	203.5	469.6	201.0	874.1

The next table gives an indication of the amount of business conducted by savings banks during a year. It shows that in each of the last five years, both the amount deposited and the amount withdrawn during the year exceeded the total amount on deposit at the end of the year.

Movements in Savings Bank Deposits, South Australia

Year	Amount on Deposit at Beginning of Year	Deposits during Year (a)	Withdrawals during Year (a)	Interest Added during Year	Increase in Depositors' Balances during Year	Amount on Deposit at End of Year
\$ million						
1967-68.	605.2	841.9	825.0	21.6	38.5	643.7
1968-69.	643.7	941.6	917.5	24.0	48.1	691.8
1969-70.	691.8	1,087.8	1,072.8	26.3	41.3	733.1
1970-71.	733.1	1,193.8	1,167.5	28.5	54.8	787.9
1971-72.	787.9	1,400.2	1,345.0	31.1	86.2	874.1

(a) Includes inter-branch transfers.

Interest Rates

On 1 April 1970 the maximum interest rate payable on savings accounts was fixed by the Reserve Bank at 5 per cent for balances up to \$20,000, this being the first change since 1 August 1968; no interest is payable on ordinary savings account balances in excess of this amount but for approved society cheque accounts no interest-bearing limit is set. In practice the general rate of interest payable on ordinary savings accounts varies from 3.75 to 4 per cent for balances up to \$4,000 and from 4.25 to 4.5 per cent for balances over \$4,000 and up to \$20,000. In May 1971 the rate of interest on savings bank Investment Accounts was raised from 5 per cent to 5.25 per cent but was reduced to 5 per cent on 10 March 1972. These accounts are subject to special requirements in respect of notice of withdrawal, minimum balance and minimum amounts for transactions. Interests on savings accounts is calculated on the lowest balance in an account each month. Up to the maximum rate of 5 per cent variation between banks and between customers is permissible.

Since 1 April 1970 interest rates on housing loans have generally been between 6.25 per cent and 7 per cent. On 10 March 1972, the maximum interest rate on other loans of less than \$50,000 was decreased from 8.25 per cent to 7.75 per cent and interest rates on loans of \$50,000 and over became a matter for negotiation between banks and their customers.

State Government savings banks are not bound by rulings of the Reserve Bank but are generally guided by them.

School Banking

Special banking facilities for school children were introduced to South Australia with the inauguration of the School Banking Department of The Savings Bank of South Australia on 28 April 1908. For many years this bank was the only one engaged in this field, but in recent years the Commonwealth Savings Bank of Australia and some private banks have commenced similar services at

some private schools. However, The Savings Bank of South Australia has sole access to State schools, and retains a major share of school banking business.

With a view to encouraging thrift in school children, deposits as small as one cent are accepted.

Details of school banking in this State are as follows:

	Agencies	Operative Accounts '000	Depositors' Balances \$'000
30 June 1968	859	189	4,127
1969	867	192	4,352
1970	875	173	3,452
1971	872	168	3,463
1972	920	166	3,532

CURRENCY

Under the Commonwealth Constitution the control of currency, coinage and legal tender in Australia is vested in the Commonwealth.

The Commonwealth Treasurer is empowered by legislation to arrange for the making and issuing of coins of specified denominations. Australia's coin requirements are met by the Royal Australian Mint in Canberra. Australian notes are printed by the Note Printing Branch of the Reserve Bank in Melbourne, while their issue is controlled by the Note Issue Department of that bank.

Decimal Currency

Until 13 February 1966 Australian currency was based on the British unit which was the pound (£), divided into 20 shillings (s) each of 12 pence (d). A decimal currency system was introduced on 14 February 1966 with the major unit, the dollar, equal to ten shillings and the minor unit, the cent, equal to 1.2 pence in the old currency.

At June 1972 decimal currency notes in circulation were of the denominations \$1, \$2, \$5, \$10 and \$20. Coins in circulation were 1 cent and 2 cents (bronze) and 5, 10, 20 and 50 cents (cupro-nickel).

Minting of the 50 cent coin in its original form of 80 per cent silver and 20 per cent copper, ceased in April 1968. A twelve sided version of the 50 cent coin, in cupro-nickel, was issued in September 1969. A special 50 cent coin was issued in 1970 to commemorate the two-hundredth anniversary of Captain James Cook's discovery of the east coast of Australia.

More complete details of Australian currency, including historical references, were included on pages 552-6 of the *South Australian Year Book* 1968.

Rates of Exchange

The following table shows the average telegraphic transfer selling rates of exchange for Sydney, New South Wales, on a selection of overseas countries. The figures appearing in the table, which are averages of daily quotations, are based generally on rates quoted by the Commonwealth Trading Bank of Australia.

**Overseas Exchange Rates: Average Telegraphic Transfer Selling Rates
Sydney, 1969-70 to 1971-72**

Country	Basis of Quotation	1969-70	1970-71	1971-72
New Zealand (a)	Dollars to \$A1 (a)	0.998	0.998	0.998
United Kingdom (a)	Pound Stg to \$A1 (a)	0.465	0.465	0.461
Belgium (Financial) (b)	Francs to \$A1	} 55.22	55.11	{ 52.49
Belgium (Convertible) (b)	Francs to \$A1				} 52.58
Canada	Dollars to \$A1	1.1930	1.1326	1.1700
Ceylon	Rupees to \$A1	6.587	6.586	6.852
China (Mainland) (c)	New Yuan to \$A1	2.72	2.72	2.71
France (Financial) (b)	Francs to \$A1	} 6.082	6.133	{ 6.003
France (Commercial) (b)	Francs to \$A1				} 6.122
Germany (West)	Deutsche Marks to \$A1	4.159	4.017	3.804
Hong Kong	Dollars to \$A1	6.740	6.740	6.670
India	Rupees to \$A1	8.330	8.330	8.505
Italy	Lire to \$A1	696.00	694.00	696.00
Japan	Yen to \$A1	396.96	397.36	368.29
Netherlands	Guilders to \$A1	4.015	3.990	3.835
Pakistan	Rupees to \$A1	5.285	5.285	5.386
Singapore	Dollars to \$A1	3.399	3.409	3.334
South Africa	Rands to \$A1	0.7950	0.7950	0.8518
Switzerland	Francs to \$A1	4.781	4.755	4.567
U.S.A.	Dollars to \$A1	1.1127	1.1152	1.1680
U.S.S.R. (c)	Roubles to \$A1	1.004	1.004	1.001

(a) Usual basis of quotation (i) \$A to \$N.Z. 1; (ii) \$A to £1 Stg. Values quoted are inversions.

(b) From 20 September 1971 two rates quoted for Belgium and France: 'Convertible' rate (Belgium), 'Commercial' rate (France) for trade transactions accompanied by documentation and 'Financial' rate for other transactions.

(c) Rates of exchange used in converting import values to Australian currency for purposes of calculating customs duty.

13.2 INSURANCE

LIFE INSURANCE

The activities of life insurance companies operating in South Australia have been regulated by Commonwealth legislation since 1945. Under the *Life Insurance Act 1945-1965*, every company transacting life insurance business must be registered and must lodge a deposit of up to \$100,000, as security for policy holders, with the Commonwealth Treasurer. The Act is administered by the Insurance Commissioner who has wide powers of inquiry into the activities of any registered company.

Each company must establish at least one statutory fund and all moneys received in respect of life insurance business must be paid to, and form part of, the assets of these funds. An actuarial investigation must be conducted at least once every five years, with the distribution of shareholders dividends and policyholders bonuses subject to sufficient surplus being revealed by such investigation. All premiums must be actuarially approved and the Commissioner has powers to suppress policies or proposals which he deems misleading. Companies are required to furnish to the Commissioner certain accounting reports and statistical returns and it is from these returns that the statistical details in this section are obtained. The individual returns cover operations for the accounting year ending in the calendar year shown. For a majority of companies the closing date is 31 December, but a number balance earlier in the year.

During 1971 there were thirty-nine companies operating in South Australia. All conducted ordinary life insurance business; thirty-two also undertook superannuation business, *i.e.*, the issuing of policies to the trustees of funds established for the provision of superannuation or retirement benefits, and ten recorded industrial business whereby premiums are collected at intervals of less than two months.

Policies in Force

There has been a rapid growth in life insurance business since the end of 1945 when for policies in force the sum assured plus bonus additions amounted to \$130 million; by 1956 the \$500 million mark was reached and by 1971 the figure was \$2,935 million.

Life Insurance: Policies in Force, South Australia

31 December	Ordinary (a)			Superannuation (a)			Industrial (b)		
	Policies	Sum Assured	Annual Premiums	Policies	Sum Assured	Annual Premiums	Policies	Sum Assured	Annual Premiums
	No.	\$'000	\$'000	No.	\$'000	\$'000	No.	\$'000	\$'000
1962....	398,608	761,668	22,044	44,180	123,004	4,746	326,304	70,754	3,173
1963....	412,348	845,322	23,960	42,449	137,586	5,198	312,765	73,482	3,240
1964....	424,520	923,929	25,700	42,545	160,011	6,005	299,984	78,046	3,381
1965....	442,451	1,029,608	28,173	43,786	182,502	6,760	289,109	82,340	3,525
1966....	458,212	1,140,650	30,500	44,789	212,918	7,806	275,966	85,515	3,615
1967....	477,753	1,272,160	33,383	45,243	256,144	8,947	269,364	89,808	3,761
1968....	497,847	1,413,337	37,087	47,003	298,891	10,301	262,780	94,949	3,936
1969....	523,417	1,588,831	41,321	48,453	341,571	11,588	257,049	101,077	4,163
1970....	550,226	1,802,721	46,011	49,784	399,458	13,347	253,464	111,065	4,493
1971....	580,218	2,073,174	51,801	51,275	470,677	15,882	249,993	123,800	4,894

(a) Includes business for the Northern Territory in 1962 and 1963.

(b) Includes industrial business for the Northern Territory.

The table above illustrates the growth in life insurance business over the last ten years. Although total business has been increasing, the number of industrial policies has actually declined and industrial premiums have risen only slowly. The heavy relative decline in this form of business has been because of the high cost of collecting premiums and the development of superannuation and group schemes.

In the following table the distinction between endowment insurance and an endowment policy is that endowment insurance provides for the payment of the sum assured upon the insured reaching a specified age or upon his prior death, whereas the sum assured under an endowment policy is paid only upon the insured reaching the specified age.

Life Insurance: Policies in Force, South Australia, 1971

Type of Policy	Ordinary		Superannuation		Industrial (a)	
	Sum Assured	Annual Premiums	Sum Assured	Annual Premiums	Sum Assured	Annual Premiums
	\$'000					
Whole life insurances.	1,180,738	23,050	40,939	1,109	7,974	331
Endowment insurances	501,976	24,028	230,938	8,945	113,880	4,470
Other insurances	360,070	2,129	189,388	5,335	644	28
Endowment	30,391	2,594	9,412	493	1,302	66
Total	2,073,174	51,801	470,677	15,882	123,800	4,894

(a) Includes industrial business for the Northern Territory.

Of the thirty-nine companies undertaking ordinary business in 1971, ten accounted for 88 per cent of business registered at the end of the year, with the five largest accounting for 72 per cent. Although thirty-four companies had superannuation policies registered, ten companies accounted for 96 per cent, and three for 69 per cent of all superannuation business.

New Policies

During 1971 a total of 84,351 new life insurance policies, with an assured value of \$525,879,000, were issued in South Australia. This number exceeded the previous highest figure of 79,091 policies issued in 1970. The value, *i.e.* amount assured, of new policies has increased continuously since 1945.

The number and value of new ordinary, superannuation, and industrial policies issued during the last five years is shown in the next table. The relative importance of industrial policies has declined from approximately 25 per cent of total value in 1945 to less than 5 per cent in 1971. The average value of industrial policies is much lower than for ordinary and superannuation policies.

Life Insurance: New Policies Issued, South Australia

Policy	1967	1968	1969	1970	1971
	NUMBER ISSUED				
Ordinary	48,018	49,906	55,262	59,174	63,576
Superannuation	5,758	5,984	5,618	6,227	6,494
Industrial (a)	13,203	12,921	13,431	13,690	14,281
Total (a)	66,979	68,811	74,311	79,091	84,351
	SUM ASSURED (\$'000)				
Ordinary	205,056	224,015	260,992	319,387	388,117
Superannuation	63,117	64,703	71,394	100,230	114,596
Industrial (a)	11,823	12,884	14,531	18,081	23,166
Total (a)	279,996	301,602	346,917	437,699	525,879

(a) Includes industrial business for the Northern Territory.

Annual premiums on new policies issued in 1971 amounted to \$13,341,000 and of this amount \$6,054,000 was for endowment insurances and \$4,503,000 for whole of life insurances. Details of sum assured and premiums payable for the various types of policy issued in 1971 are shown in the following table.

Life Insurance: New Business, South Australia, 1971

Type of Policy	Ordinary		Superannuation		Industrial (a)	
	Sum Assured	Annual Premiums	Sum Assured	Annual Premiums	Sum Assured	Annual Premiums
	\$'000					
Whole life insurances.	242,043	4,302	5,552	157	1,064	44
Endowment insurances	56,890	3,368	49,669	1,929	21,803	757
Other insurances	82,737	395	56,192	1,611	299	11
Endowment	6,446	591	3,183	175	—	—
Total	388,117	8,657	114,596	3,872	23,166	812

(a) Includes industrial business for the Northern Territory.

Loans Outstanding

A considerable proportion of the assets of life insurance companies is held as loans, particularly loans on the mortgage of real estate. In the following table details are given of mortgages on South Australian real estate, loans on policies registered in, and 'other' loans to persons resident in, this State. Only those loans which form assets of the statutory funds, are included.

Life Insurance: Loans Outstanding, South Australia

Nature of Collateral	1967	1968	1969	1970	1971
			\$'000		
Mortgage of real estate	69,479	74,623	81,001	83,552	80,619
Policies:					
Advances of premiums	3,965	4,118	4,425	4,951	3,800
Other	12,166	13,854	15,602	18,118	20,327
Other collateral	256	326	186	697	2,761
Total	85,865	92,922	101,214	107,318	107,507

GENERAL INSURANCE

General insurance in South Australia is conducted by private organisations and the State Government Insurance Commission which commenced business in January 1972. Some government insurance, in particular workmen's compensation, is carried by the State Government's Accident Insurance Office and in addition the State Bank of South Australia insures certain properties on which it has provided mortgage finance. A number of Commonwealth Government instrumentalities also are engaged in insurance in South Australia, notably in respect of housing loans and export payments, but these Commonwealth activities are not included in South Australian statistics.

Under the Commonwealth *Insurance Act* 1932-1966, insurance companies are required to lodge a deposit with the Commonwealth Treasurer, as security against liability to policy holders. The Act does not apply to State insurance within the limits of the State concerned. However, insurance business is conducted almost entirely under State legislation.

Companies, persons or firms of persons carrying on general insurance business are required under the Stamp Duties Act, 1923-1971 to take out an annual licence, such licence being the authority to carry on insurance business in the State. The licence fee varies with premium income. Under the Fire Brigades Act, 1936-1958 insurance companies contribute approximately 60 per cent of the cost of maintaining the services of the Fire Brigades Board.

Insurance for workmen's compensation and motor vehicle third party risks is compulsory under State legislation. Employers, unless specifically exempted, are required under the Workmen's Compensation Act, 1971 to effect an insurance cover providing compensation for workmen suffering injuries in the course of their employment. Details of workmen's compensation provisions are given in Part 7.4 pages 315-6.

Under the Motor Vehicles Act, 1959-1972 all vehicles other than those belonging to the Crown must be covered by a third party policy protecting the owner against any liability for death or injury to others resulting from use of the vehicle. Particulars are given in Part 11.1 pages 510-1.

The statistics in this section are compiled from returns covering transactions of the State Government Insurance Commission, the Government Insurance Office, State Bank and approximately 160 companies licensed to conduct general insurance business. Each return gives details of the organisation's activities during a twelve month period ending within the year shown. Some re-insurance transactions are excluded from the returns to avoid duplication.

The following tables show some details of revenue and expenses relating to general insurance over the last five years. The tables contain selected items of statistics and should not be combined and construed as profit and loss statements or revenue accounts.

The first table shows premiums and investment income earned by the companies. Premiums represent the full amount receivable in respect of policies issued and renewed in the year less returns, rebates, and bonuses, paid or credited to policy holders in the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts shown differ from 'earned premium income' for the year. Premiums have increased over the period covered by the table and hence have been greater than earned premium income in each year. Investment income relates to interest, dividends, rents, etc. from investments made within the State.

General Insurance: Principal Items of Revenue, South Australia

Source of Revenue	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Premiums:					
Fire and sprinkler leakage . .	7,219	8,169	8,703	9,125	10,374
Householders' comprehensive	4,848	5,301	5,821	6,308	7,226
Loss of profits	805	912	1,105	1,247	1,342
Hailstone	170	518	324	200	343
Marine	1,734	1,925	2,242	2,574	2,851
Motor vehicle;					
Compulsory third party	11,067	11,912	12,816	13,209	14,251
Other	16,878	17,464	18,881	20,460	23,890
Employers' liability and work-					
men's compensation	9,990	10,699	11,468	12,721	17,150
Personal accident	2,570	2,871	3,285	3,664	3,914
Public risk, third party	1,337	1,455	1,621	1,805	2,244
Burglary	694	763	845	878	1,010
Other	1,839	2,362	2,652	2,996	3,448
Total premiums	59,151	64,351	69,762	75,186	88,043
Revenue from investments	830	1,003	879	834	1,129
Total	59,981	65,355	70,640	76,020	89,173

Details of claims and other expenses are given below. Claims include provision for outstanding claims and represent claims incurred during the year. Other expenses mainly represent payments made during the year. Taxation payments are therefore based on income earned in previous years.

General Insurance: Expenses, South Australia

Type of Expense	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Claims:					
Fire and sprinkler leakage . . .	1,394	2,835	2,965	2,365	3,027
Householders' comprehensive	1,048	1,429	1,367	1,743	2,091
Loss of profits	224	684	206	581	-22
Hailstone	56	236	134	17	265
Marine	1,051	1,265	1,476	1,363	1,603
Motor vehicle;					
Compulsory third party	7,036	8,174	8,745	8,503	12,799
Other	9,832	11,419	13,430	14,206	16,328
Employers' liability and work-					
men's compensation	5,912	6,078	7,246	7,784	13,442
Personal accident	1,065	1,300	1,422	1,544	1,600
Public risk, third party	547	486	758	537	709
Burglary	355	316	404	534	642
Other	1,015	1,007	1,115	1,315	1,493
Total claims	29,536	35,228	39,269	40,491	53,978
Other expenses:					
Contributions to fire brigades	844	939	1,066	1,154	1,379
Commission and agents' charges	6,147	6,624	7,131	7,723	8,792
Management	11,520	12,546	13,491	14,950	17,100
Taxation	2,034	2,217	2,244	2,434	1,936
Total expenses	50,082	57,554	63,201	66,751	83,185

13.3 OTHER PRIVATE FINANCE

THE STOCK EXCHANGE OF ADELAIDE LIMITED

The Stock Exchange of Adelaide was formed in 1887 by the amalgamation of the Adelaide Stock Exchange and the Stock Exchange of South Australia. Basically the Exchange provides facilities for trading in securities, with transactions being conducted by brokers who constitute its membership. Trading was conducted on the call system until the end of 1961 when post trading came into operation.

The Exchange operates under a set of rules and regulations which govern both the behaviour of companies, through the various listing requirements, and the conduct of members. Management is by a chairman, vice-chairman and committee of four, elected by the members.

Lists of quotations are issued by the Exchange twice daily and lists of dividends and new issues are produced weekly. The *Australian Stock Exchange Journal* providing enlarged and additional information is published monthly. Transfer marking and noting services are available to members of the Exchange and to the public through solicitors and accountants. A visitors gallery overlooking the trading floor enables the proceedings to be observed.

The figures in the following table have been supplied by the Stock Exchange and show that business transacted during 1971-72 was below the previous year's level. In the early part of the financial year the market, particularly the mining sector, was inactive; however, it progressively improved in both turnover and prices during the latter part of the year.

It should be noted that several companies with diverse activities, including extensive oil and/or mining interests, are classified by stock exchanges as 'industrial' and are shown in that category in the table. As from 1971-72, no distinction between mining and oil companies has been made when recording turnover information.

Stock Exchange of Adelaide, Turnover of Securities

Particulars	Year Ended 30 June				
	1968	1969	1970	1971	1972
	Transactions ('000)				
Shares, Commonwealth loans, semi-government loans, debentures and unsecured notes	166	164	251	116	61
	Number of Shares ('000)				
Shares:					
Industrial	17,136	19,689	19,331	22,756	20,431
Mining	18,834	23,391	60,266	40,369	} 27,963
Oil	12,010	11,054	43,575	6,968	
Total shares	47,981	54,134	123,172	70,093	48,394
	Market Value (\$'000)				
Shares:					
Industrial	28,416	28,454	27,070	22,511	25,362
Mining	41,478	32,212	107,776	43,627	} 14,011
Oil	8,153	8,288	11,306	2,240	
Total shares	78,048	68,954	146,151	68,378	39,373
Commonwealth loans, semi-government loans, debentures and unsecured notes (a):	(\$'000)				
Face value	4,674	5,413	2,443	2,701	3,256
Market value	4,271	5,179	2,747	2,477	3,165

(a) Excludes occasional large 'off-market' placements of Commonwealth Securities and debentures.

On 2 January 1972, the Member Exchanges of the Australian Associated Stock Exchanges (which includes Adelaide) adopted the policy of 'national listing'. This common listing meant that at 30 June 1973, The Stock Exchange of Adelaide Limited had 1,584 companies on its Official List with a combined paid up value of \$19,382 million and market value of \$37,255 million.

BUILDING SOCIETIES

The operations of building societies in South Australia are regulated by the Building Societies Act, 1881-1968 which is administered by the Registrar of Building Societies with whom all building societies must be registered. The societies fall into two categories—permanent societies and Starr-Bowkett societies.

Permanent societies, which have no fixed arrangement for termination of operations, derive their funds from the issue of shares and by receiving deposits and loans. An additional source of funds for certain permanent societies has been provided by the Commonwealth-State Housing Agreement and the States

Grants (Housing Assistance) Act 1971 (see pages 547). Advances for the purpose of building or acquiring homes are made to members and other persons by way of mortgage. Two permanent building societies are approved organisations in which the trustee of an estate may legally invest funds.

Starr-Bowkett societies have a limited life and derive their funds from regular subscription from members. These funds are used to make interest-free advances to members, with priority being determined by ballot. When all members have received a loan the process of winding up commences with share capital being returned to members as loans are repaid.

Building Societies: Societies, Shareholders and Borrowers, South Australia

Year	Societies		Shareholders		Borrowers	
	Permanent	Starr-Bowkett	Permanent	Starr-Bowkett	Permanent	Starr-Bowkett
1967-68.	6	21	16,647	5,811	4,705	2,236
1968-69.	6	21	20,627	5,746	5,241	2,392
1969-70.	8	22	28,422	5,441	6,270	2,040
1970-71.	10	21	36,352	5,318	6,783	2,001
1971-72.	10	20	44,925	4,879	7,482	2,075

Details of financial transactions by building societies during 1971-72 are given in the next table.

Building Societies: Transactions, South Australia, 1971-72

Particulars	Permanent	Starr-Bowkett	Total
Income:		\$'000	
Interest on mortgage loans	3,329	—	3,329
Other	556	41	597
Total	3,885	41	3,926
Expenditure:			
Interest on borrowed funds	3,005	—	3,005
Administration and taxation	721	36	757
Total	3,727	36	3,762
Deposits:			
Received	4,079	—	4,079
Repaid	2,624	—	2,624
Government housing funds (a):			
Received	2,105	—	2,105
Repaid	272	—	272
Advances:			
Paid	13,665	387	14,053
Repaid	4,980	381	5,361

(a) Transactions between Societies and State Treasury.

Details of assets and liabilities of these societies, given in the following table, are compiled from individual returns with a variety of balancing dates. The figures for each year represent the aggregate of returns with balancing dates in that year.

Building Societies: Assets and Liabilities, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Assets:	\$'000				
Advances on mortgages and shares	22,388	27,529	36,466	45,439	54,134
Land and buildings	430	440	470	996	1,903
Other investments (a)	797	1,012	2,824	3,651	5,402
Cash and deposits	296	341	336	296	1,151
Other	37	130	150	164	740
Total assets	23,947	29,452	40,246	50,545	63,331
Liabilities:					
Subscriptions	11,246	14,820	22,881	30,542	39,262
Loans due to Government (b)	8,709	9,881	11,306	12,903	14,606
Deposits	2,516	3,139	4,457	4,892	6,389
Reserves and profits	1,142	1,190	1,209	1,316	1,319
Bank overdraft	261	335	276	683	1,392
Other	73	87	118	210	363
Total liabilities	23,947	29,452	40,246	50,545	63,331

(a) Includes fixed deposits.

(b) Loans made to permanent building societies under the Commonwealth-State Housing Agreement and the States Grants (Housing Assistance) Act, 1971.

CO-OPERATIVE SOCIETIES

For the purpose of collecting the statistics in this section co-operative societies have been defined as producing, manufacturing, marketing or distributing societies which substantially fulfil the following conditions:

1. The greater part of the business of such a society to be transacted with its own shareholders;
2. Any distribution of surplus after payment of dividend on share capital to be amongst suppliers or customers in proportion to the business transacted with the society;
3. Limitation of voting power to one vote per person;
4. Dividend on share capital not to exceed 10 per cent.

All such societies must be registered under the Industrial and Provident Societies Act, 1923-1966. The Registrar of Industrial and Provident Societies must approve the rules of each society before it may be registered.

Co-operative societies may be classified under three broad headings—those serving producers, those serving consumers, and those fulfilling both functions. In the following table societies and members have been classified under these headings.

Co-operative Societies: Societies and Membership, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Societies:					
Producers societies	39	39	39	39	39
Consumers societies	13	12	12	12	12
Producers and consumers societies	13	12	12	12	11
Total	65	63	63	63	62
Members:					
Producers societies	18,431	18,438	14,178	14,380	14,618
Consumers societies	103,141	104,304	105,339	105,887	105,317
Producers and consumers societies	3,813	3,787	3,746	3,754	3,820
Total members	125,385	126,529	123,263	124,021	123,755

Of the thirty-nine producers societies operating in 1971-72, seven were co-operative wineries or distilleries, eight represented dairy producers, and fourteen were associated with fruit and vegetable production. Seven of the remaining ten societies were associated with other rural production. Of the twelve co-operative consumers societies, seven were trading as general storekeepers, the remainder offering specialised products or services. Producer-consumer societies were generally associated with the fruitgrowing industry.

Particulars of the aggregate income and expenditure of co-operative societies for the last five years are given in the following table.

**Co-operative Societies: Income, Expenditure and Appropriations
South Australia**

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000				
Income:					
Sales	55,319	58,208	61,518	64,059	70,695
Other	4,743	4,756	4,371	5,029	5,946
Total	60,062	62,963	66,089	69,088	76,641
Expenditure:					
Purchases	41,207	43,220	46,260	47,826	52,106
Working expenses (a)	14,645	15,412	17,395	18,452	22,436
Interest on external borrowing	691	752	793	970	1,148
Total	56,543	59,384	64,448	67,248	75,690
Appropriations:					
Rebates and bonuses	3,021	2,869	2,442	2,553	2,057
Interest and dividends to shareholders	462	456	472	514	555
Other	802	1,182	1,806	1,615	1,438
Total	4,284	4,508	4,720	4,681	4,050

(a) Includes provision for depreciation and bad debts.

Details of the liabilities and assets of the societies in each category for 1971-72 are given below. The seven co-operative wineries and distilleries accounted for 52 per cent of producer society assets.

Co-operative Societies: Assets and Liabilities, South Australia, 1971-72

Particulars	Producers Societies	Consumers Societies	Producers and Consumers Societies	Total
	\$'000			
Assets (a):				
Land and buildings	8,181	3,321	2,341	13,843
Fittings, plant and machinery .	9,421	354	1,270	11,046
Stock	17,262	2,245	542	20,049
Sundry debtors	6,940	653	1,835	9,428
Cash	287	266	292	844
Profit and loss account	272	12	—	284
Other (b).....	2,663	642	4,188	7,493
Total	45,026	7,494	10,468	62,988
Liabilities:				
Capital	4,911	2,990	966	8,867
Loan capital.....	11,782	1,559	3,303	16,644
Bank overdraft	6,071	365	2,159	8,596
Sundry creditors	3,904	460	1,896	6,259
Accumulated profits	1,068	299	—	1,367
Reserves and reserve funds (c) .	6,420	1,722	1,022	9,163
Other (d).....	10,870	100	1,123	12,093
Total	45,026	7,494	10,468	62,988

- (a) Assets are shown at net value after deduction of provisions.
 (b) Includes investments and advances to members.
 (c) Excludes provision for depreciation and bad debts.
 (d) Includes amounts due to members.

CO-OPERATIVE CREDIT SOCIETIES

Co-operative Credit Societies are defined as 'financial' organisations, registered under the Industrial and Provident Societies Act, which have more than half of their assets in the form of loans to members and/or derive more than half of their income from such loans.

Societies included in this collection, which was conducted for the first time for 1970-71, are mainly Credit Unions or Savings and Loans Societies. The figures below are excluded from the statistics of Co-operative Societies on pages 601-3.

Details of assets and liabilities of these societies, given in the following table, are compiled from individual returns with a variety of balance dates. The figures shown represent the aggregate of returns with balancing dates in 1970-71 and 1971-72.

Co-operative Credit Societies, South Australia

Particulars	1970-71	1971-72
	Number	
Societies	29	33
Shareholders (a)	21,850	33,711
Deposit accounts (a)	18,451	30,107
Borrowing members	11,072	16,638
	\$'000	
Selected Receipts and Payments:		
Deposits received (b)	5,129	10,678
Deposits repaid (c)	2,975	6,571
Loans paid over	5,852	9,607
Loan repayments (c)	4,018	6,600
Budget savings deposits received	327	1,519
Budget savings payments made	293	1,359
Income:		
Interest on loans to members	572	932
Other	40	52
Total	612	984
Expenditure:		
Interest on deposits	223	530
Other (d)	380	472
Total	603	1,002
Assets:		
Loans to members	7,784	11,714
Cash in hand and at bank	69	312
Investments	222	381
Other	86	94
Total	8,161	12,501
Liabilities:		
Share capital	332	341
Reserves and accumulated profits	280	262
Deposits	7,167	11,275
Budget savings accounts	39	202
Bank overdraft	186	173
Other	158	247
Total	8,161	12,501

(a) Shareholders may or may not have deposit accounts. Deposit account holders are not always shareholders.

(b) Includes interest credited of \$142,000 in 1970-71 and \$506,000 in 1971-72.

(c) Includes interest.

(d) Includes dividends on shares, salaries and wages, administrative expenses, and provisions for taxation, doubtful debts, and long service leave.

ESTATES OF DECEASED PERSONS

During recent years more than 80 per cent of estates of deceased persons have been administered by executors following grants by the Supreme Court of probate on wills left by the deceased. Should the executorship of a will fail for any reason, for example by the death or renunciation of a nominated executor, the Court issues 'letters of administration with the will annexed' but the more

usual 'letters of administration' relate to the estates of persons who died intestate. Tables in this section contain details of estates covered by the three types of grant during specified years.

Estates generally are those located in South Australia and not necessarily estates of deceased residents of this State. The net value of an estate is the gross value less proved liabilities; these liabilities do not include Commonwealth estate duty or State succession duties.

The following table shows the number and value of estates for which probate or administration was granted by the Supreme Court during the five years to 1971.

Estates of Deceased Persons, South Australia

Year	Estates	Gross Value of Estates		Net Value of Estates	Average Net Value per Estate
		Real	Personal		
	No.	\$'000	\$'000	\$'000	\$
MALES					
1967.....	2,726	15,839	35,656	47,247	17,332
1968.....	2,896	18,237	37,480	51,768	17,876
1969.....	2,948	17,415	43,199	56,775	19,259
1970.....	2,770	16,320	40,644	51,797	18,699
1971.....	3,276	18,307	46,584	60,052	18,330
FEMALES					
1967.....	2,161	7,355	18,516	24,295	11,243
1968.....	2,196	8,085	18,420	25,032	11,399
1969.....	2,213	7,264	17,680	23,572	10,652
1970.....	2,202	9,034	20,111	27,255	12,377
1971.....	2,588	10,261	24,892	32,980	12,743
PERSONS					
1967.....	4,887	23,194	54,171	71,542	14,639
1968.....	5,092	26,322	55,900	76,800	15,083
1969.....	5,161	24,679	60,878	80,347	15,568
1970.....	4,972	25,355	60,755	79,052	15,899
1971.....	5,864	28,568	71,476	93,032	15,864

The distribution of estates through various size groups and the gross value of real and personal estate respectively in each group are shown in the following table for the years 1970 and 1971.

For both years estates with an individual net value under \$2,000 formed more than 20 per cent of the total number but less than 2 per cent of total net value. In 1971, estates under \$10,000 constituted approximately 63 per cent of total numbers but less than 16 per cent of total net value, while the few estates, about 7 per cent of the total, with an individual net value of \$50,000 or more accounted for approximately 44 per cent of the total net value.

Real estate formed approximately 29 per cent of the total gross value for all estates in 1971.

Estates of Deceased Persons: Size and Structure of Estates, South Australia

Size of Net Estate (dollars)	1970				1971			
	Estates	Value of Estates			Estates	Value of Estates		
		Gross		Net		Gross		Net
		Real	Personal			Real	Personal	
No.	\$'000	\$'000	\$'000	No.	\$'000	\$'000	\$'000	
Under 2,000	1,009	292	1,268	971	1,183	284	1,472	1,089
2,000 and under 4,000	735	587	2,057	2,174	862	686	2,381	2,535
4,000 and under 6,000	551	1,159	1,980	2,750	653	1,164	2,543	3,226
6,000 and under 8,000	520	2,029	2,020	3,615	537	1,937	2,269	3,791
8,000 and under 10,000	369	1,759	1,772	3,294	464	2,308	2,247	4,156
10,000 and under 20,000	818	4,924	7,361	11,350	1,065	6,598	9,428	14,750
20,000 and under 30,000	307	2,462	5,538	7,560	391	2,715	7,513	9,547
30,000 and under 40,000	173	1,631	4,885	6,038	186	1,333	5,347	6,441
40,000 and under 50,000	122	1,446	4,449	5,467	138	1,603	4,870	6,177
50,000 and under 100,000	257	4,936	13,653	17,784	269	4,917	14,596	18,602
100,000 and under 200,000	95	3,279	10,170	12,735	83	2,830	8,474	10,671
200,000 and under 400,000	13	713	3,959	3,567	26	1,155	6,144	7,127
400,000 and over	3	137	1,642	1,747	7	1,038	4,191	4,919
All estates	4,972	25,355	60,755	79,052	5,864	28,568	71,476	93,032

The following table provides an analysis of estates on which probate or administration was granted during 1971 according to the age group of persons leaving those estates.

Estates of Deceased Persons: Age and Sex of Deceased, Value of Estates
South Australia, 1971

Age of Deceased	Males				Females			
	Estates	Value of Estates			Estates	Value of Estates		
		Gross	Net	Average Net		Gross	Net	Average Net
		No.	\$'000			\$'000	\$'000	
Under 21 years ..	27	338	322	11.9	4	31	30	7.4
21 to 29 years ...	77	1,204	1,072	13.9	17	92	77	4.5
30 to 39 years ...	61	985	804	13.2	23	299	275	12.0
40 to 49 years ...	176	3,420	2,742	15.6	66	689	603	9.1
50 to 59 years ...	465	7,632	6,586	14.2	166	1,838	1,659	10.0
60 to 69 years ...	748	14,876	13,763	18.4	370	5,960	5,346	14.4
70 to 79 years ...	935	19,978	19,024	20.3	818	11,421	10,808	13.2
80 years and over	752	15,937	15,267	20.3	1,102	14,528	13,891	12.6
Age not stated	35	521	473	13.5	22	294	291	13.2
All ages	3,276	64,891	60,052	18.3	2,588	35,153	32,980	12.7

REAL ESTATE MORTGAGES

The Real Property Act, 1886-1972, provides for the registration of mortgages on real estate and details of new loans and discharges are given in the following table.

Mortgages: Real Estate, South Australia

Year	New Loans		Discharges	
	No.	\$'000	No.	\$'000
1962-63	33,929	181,982	25,607	74,785
1963-64	37,813	207,097	29,002	93,116
1964-65	38,631	220,077	30,334	95,425
1965-66	38,779	262,812	30,661	104,547
1966-67	37,937	215,926	30,689	104,808
1967-68	36,513	209,450	30,291	97,343
1968-69	35,409	209,402	30,620	117,409
1969-70	37,942	224,132	34,940	126,941
1970-71	38,920	315,793	35,995	146,011
1971-72	46,099	398,775	41,220	190,008

The average value of new loans in 1971-72 was \$8,650 compared with \$8,114 in 1970-71.

INSTALMENT CREDIT FOR RETAIL SALES

Since 1945 there has been extensive development in the use of instalment credit schemes in retail merchandising. Instalment credit is defined as covering all schemes under which repayment is made by regular predetermined instalments, such as hire-purchase, time payment, budget accounts and certain personal loans. Lay-bys and credit accounts not involving regular repayments are excluded.

Care should be taken in relating figures in this section to those for retail sales as the following statistics include certain sales to final purchasers, of items such as plant, machinery and tractors, which are not covered by the survey of retail sales. Transactions specifically excluded are the financing of sales of land and buildings, property improvements, services such as repair work and travel facilities, and rental and leasing schemes.

Hire-purchase remains one of the most significant forms of instalment credit. The distinguishing feature of a hire-purchase agreement is that ownership of the good does not pass to the purchaser until the final instalment has been paid. Hire-purchase transactions include the letting of goods with an option to purchase and agreements to purchase by instalments, irrespective of whether the instalments are described as rent, hire or otherwise. Hire-purchase transactions are regulated by State legislation through the Hire-Purchase Agreements Act, 1960-1971, which provides for the content of hire-purchase agreements and for the rights and duties of parties to such agreements.

However, the new Consumer Transactions Act, 1972, assented to on 7 December 1972 and due to come into operation on a day to be fixed by proclamation, has among its objectives the provision of protection for consumers in certain classes of transactions, and the repeal of the Hire-Purchase Agreements Act, 1960-1971. Similarly, the new Consumer Credit Act, 1972, also assented to on 7 December 1972 and not yet in operation, has the objectives of regulating and controlling the provision of credit and repealing the Money-lenders Act, 1940-1971, among other purposes.

Details of instalment credit arranged during 1971-72 are given in the next table according to the nature of the commodity financed. In this and the following table the motor vehicle group includes new and used motor cars, motor cycles, commercial vehicles, tractors, caravans, motor parts and accessories. Plant and machinery includes farm machinery and implements, earthmoving equipment, aircraft, industrial plant and machinery, business machines, and commercial refrigeration. Included in household and personal goods are furniture and furnishings, domestic refrigerators, electrical goods, musical instruments, bicycles, and other household and personal goods.

**Instalment Credit for Retail Sales: New Agreements
South Australia and Northern Territory, 1971-72**

Particulars	Unit	Motor Vehicles, Etc.	Plant and Machinery	Household and Personal Goods	Total
Hire-purchase:					
Number of agreements.....	'000	18.3	1.9	43.0	63.2
Value of goods (a).....	\$ million	35.8	6.0	11.9	53.7
Amount financed (a).....	\$ million	24.9	4.0	9.8	38.7
Other instalment credit:					
Amount financed (a).....	\$ million	63.1	1.4	24.7	89.1

(a) Excludes hiring charges, interest and insurance.

In the instalment credit statistics which follow, transactions are classified to the type of business which originally wrote the agreement regardless of whether that agreement was subsequently assigned, discounted or mortgaged.

**Instalment Credit for Retail Sales: Amount Financed
South Australia and Northern Territory^(a)**

Year	Motor Vehicles, Etc.	Plant and Machinery	Household and Personal Goods	Total
\$ million				
RETAIL BUSINESSES				
1967-68	2.0	0.3	19.2	21.5
1968-69	2.2	0.5	21.4	24.1
1969-70	2.0	0.4	22.7	25.1
1970-71	1.9	0.3	24.0	26.2
1971-72	2.1	0.3	25.6	28.1
NON-RETAIL FINANCE BUSINESSES				
1967-68	55.3	4.7	8.6	68.6
1968-69	72.0	6.9	7.6	86.5
1969-70	88.2	5.0	7.4	100.5
1970-71	91.4	5.2	7.9	104.6
1971-72	85.9	5.0	8.9	99.8
ALL BUSINESSES				
1967-68	57.2	5.1	27.7	90.0
1968-69	74.2	7.4	29.0	110.6
1969-70	90.2	5.3	30.1	125.7
1970-71	93.3	5.5	32.0	130.8
1971-72	88.0	5.4	34.5	127.9

(a) Excludes hiring charges, interest and insurance.

'Retail businesses' include both retailers who finance their own sales and any business set up by a retailer or group of retailers primarily to finance the sales of that retailer or group. All other businesses engaged in instalment credit financing of retail sales, irrespective of whether their main activity is financing, constitute 'non-retail finance businesses'.

Of the \$85.8 million provided by non-retail finance businesses for motor vehicle purchases in 1971-72, \$39.6 million was for new vehicles and \$46.2 million for used vehicles.

Details of balances outstanding at the end of each of the last five years are given below. A trend away from financing by 'retail businesses' can be seen.

Instalment Credit for Retail Sales: Balances Outstanding
South Australia and Northern Territory^(a)
At 30 June

Particulars	1968	1969	1970	1971	1972
	\$ million				
Type of business:					
Retail businesses	25.9	25.6	25.5	25.1	24.6
Non-retail finance businesses	112.1	127.9	148.4	165.4	163.8
Total	138.1	153.5	173.9	190.4	188.4
Type of credit:					
Hire-purchase	65.6	57.4	55.1	58.3	63.3
Other instalment credit	72.4	96.1	118.8	132.2	125.1
Total	138.1	153.5	173.9	190.4	188.4

(a) Includes hiring charges, interest and insurance.

FINANCE COMPANIES

Finance companies are defined as companies, incorporated under the Companies Act, whose main activity is providing to the general public (businesses or persons) credit facilities of the following type: hire-purchase and other instalment credit for retail sales; wholesale finance; other consumer and commercial loans; and factoring. From July 1971 the scope of the monthly collection (from which the following three tables are compiled) has been altered to exclude all finance companies whose balances outstanding on such finance agreements are less than \$500,000 on an Australia-wide basis. Before July 1971 the limit was \$100,000. Companies whose main activity is leasing are included only if they are related under the Companies Act to another finance company. Special classes of financial institutions such as banks, insurance and investment companies and building and friendly societies are also excluded, although merchant banking companies are included if they come within the scope of the collection.

Finance companies here defined are not equivalent to 'non-retail finance businesses' mentioned on page 607. The statistics of 'instalment credit for retail sales' shown in the second and third of the tables which follow form part of the figures in the tables on page 608 and above.

Shown in the following tables is a summary of transactions of Finance Companies for the last five years. 'Leasing' covers leasing of business equipment and plant, including motor vehicles for business use. The value of goods leased during the period is the capital cost of new goods plus the depreciated value of goods re-leased plus the purchase price of secondhand goods newly leased during

the period. Before July 1971 the basis of valuation of leasing agreements at the end of the period was the 'initial capital cost of the goods less depreciation to date'. From July 1971 provision has also been made for finance companies to report on a 'gross receivables' basis, *i.e.* the value of expected future receipts from existing leasing agreements including unearned income plus the agreed residual value of the goods at the end of the leasing period. Although most companies are now reporting on the 'gross receivables' basis, some data is still being reported on the 'capital cost less depreciation' basis and therefore the figure for the 'balances outstanding at end of period' for 1971-72 in the table below is partly estimated.

**Finance Companies: Summary of Transactions
South Australia and Northern Territory**

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72(a)
	\$ million				
Leasing of business equipment and plant:					
Goods leased during the period	10.0	12.7	16.1	20.5	23.6
Balances outstanding at end of period (b)	16.4	21.5	27.2	35.7	(b) 51.9
Other transactions:					
Amount financed	228.3	272.1	335.9	368.9	452.3
Cash collections and other liquidations	250.9	286.9	349.5	392.4	478.8
Balances outstanding at end of period	239.2	266.7	311.8	354.5	388.5

(a) From 1971-72 onwards, excludes finance companies with balances outstanding of less than \$500,000.

(b) From 1971-72 onwards, basis of valuation is 'gross receivables'.

The amount financed, which is the actual amount of cash provided, may be classified according to the type of finance agreement. The following comments are offered to clarify the content of various items in the table below:

1. Instalment credit for retail sales is defined in the same way as in the previous section (see page 607);
2. Wholesale finance relates mainly to the financing of stocks of motor vehicles held under bailment or floor-plan schemes but includes also financing of other trading stock;
3. Personal loans are all loans to persons in their private capacity, other than loans classified as instalment credit or mortgage loans.

**Finance Companies: Amount Financed
South Australia and Northern Territory**

Type of Agreement	1967-68	1968-69	1969-70	1970-71	1971-72(a)
	\$ million				
Instalment credit for retail sales	66.0	80.7	97.3	100.8	95.4
Wholesale finance	91.8	110.7	118.6	124.7	130.5
Personal loans	12.4	10.5	10.4	8.4	11.1
Other consumer and commercial loans (b)	58.2	70.1	109.5	135.1	215.3
Total	228.3	272.1	335.9	368.9	452.3

(a) From 1971-72 onwards, excludes finance companies with balances outstanding of less than \$500,000.

(b) Includes mortgage loans, commercial loans and factoring.

Collections and other liquidations of balances and balances outstanding may be divided between contracts including charges and those excluding charges. Contracts including charges are those which have interest and other charges written into the contractual amount at the time of origin of the agreement. Practices in this respect vary between finance companies and between types of agreements.

Details of collections and other liquidations and balances outstanding are not available separately for the categories mortgage loans and commercial loans, because some finance companies do not segregate these types of agreements in their records of balances and collections.

Finance Companies: Liquidations and Balances Outstanding
South Australia and Northern Territory

Year	Instalment Credit for Retail Sales	Wholesale Finance	Personal Loans	Other Consumer and Commercial Loans (a) (b)		Total All Contracts
				Contracts Including Charges	Contracts Excluding Charges	
\$ million						
COLLECTIONS AND OTHER LIQUIDATIONS						
1967-68	79.2	91.1	(b)	37.2	43.5	250.9
1968-69	90.3	111.5	(b)	41.7	43.4	286.9
1969-70	108.1	119.0	(b)	45.4	76.9	349.5
1970-71	118.4	125.3	11.0	39.8	98.0	392.4
1971-72 (c) ...	126.3	130.4	11.1	48.3	162.7	478.8
BALANCES OUTSTANDING						
1967-68	108.9	13.5	(b)	81.9	34.9	239.2
1968-69	122.4	15.2	(b)	85.3	43.7	266.7
1969-70	143.5	17.4	(b)	101.1	49.8	311.8
1970-71	159.2	20.0	16.1	101.3	58.0	354.5
1971-72 (c) ...	159.0	23.7	18.2	118.1	69.5	388.5

(a) Includes mortgage loans, commercial loans and factoring.

(b) Before 1970-71 personal loans were included in other consumer and commercial loans.

(c) From 1971-72 excludes finance companies with balances outstanding of less than \$500,000.

METRIC CONVERSION

METRIC CONVERSION FOR AUSTRALIA

Weights and Measures in Australia

Australia inherited the 'Imperial' system of weights and measures from the United Kingdom. The *Commonwealth of Australia Constitution Act 1900* provided the newly formed Commonwealth Parliament with powers to make laws governing weights and measures (Section 51 (xv)). This power was not exercised until the *Weights and Measures (National Standards) Act 1948* was passed. This Act provided '. . . for the establishment and use throughout Australia of uniform units of measurement, and uniform standards of measurement, of physical quantities . . .'.

The Act transferred to the Commonwealth the power to specify particular units for particular purposes. In 1960, because it was felt that the States should be able to exercise certain of these powers, the 1948 Act was repealed and replaced by an Act which allowed the States to legislate in certain areas.

The National Standards Commission

The need for an extensive and accurate system of weights and measures had been seen as far back as 1940 when the Commonwealth established the National Standards Laboratory (NSL) under what is now the Commonwealth Scientific and Industrial Research Organization. In response to the demands of wartime, and the increasing technological complexity of the postwar era, NSL has played an important role in the development and control of measurement standards.

The weights and measures legislation later introduced by the Commonwealth, legalised the many and diverse standards maintained by NSL. Under the *Weights and Measures (National Standards) Act 1960-1966*, units are prescribed in the Commonwealth's *Weights and Measures (National Standards) Regulations*. These cover a much wider range of units than those covered previously by State legislation, since they include all units required by modern technology for

accurate measurement. This legislation includes a range of metric units as well as the imperial units in common use. It defines the imperial units used in Australia directly in terms of metric units which are identical with the internationally defined metric units. Thus, Australian imperial weights and measures are already closely related by definition to the metric system.

Commonwealth Legal Units

The Commonwealth legislation is intended to define those units which are legal for measurement. Section 7 of the above Act states that the regulations may prescribe units of measurement of any physical quantity and those units shall be the sole legal unit of measurement of that quantity. However, the use of such units for the purpose of trade is in general controlled by State legislation. Until 1972 the States had only permitted the use of the imperial units; consequently, goods sold in the shops in Australia had to be marked with their contents in imperial units. As a step towards the conversion, many goods may now be sold in packages marked solely in metric units.

The Decision to Change

In April 1967 a Senate Select Committee was appointed to inquire into the metric system of weights and measures. Between then and May 1968 the Committee under the chairmanship of Senator K. A. Laught heard evidence in all capital cities from 141 witnesses and received written submissions from fifty-four persons or organisations.

The Committee reported unanimous agreement that it was practicable and desirable for Australia to adopt the metric system of weights and measures at an early date.

The Committee's findings included the following:

- (1) Evidence from a wide segment of the community overwhelmingly supported an early change to the sole use of the metric system and indicated that there would be no insuperable difficulties.
- (2) About 90 per cent of the world's population already use metric measurements and this use is increasing.
- (3) About 75 per cent of world trade is carried out in metric terms. Some 70 per cent of Australia's export trade is to countries using or converting to metric weights and measures. This proportion will increase as Australia's trade with Japan and South-East Asian countries grows.
- (4) A metric system would improve the teaching of mathematics and science, reduce errors and save time.
- (5) A metric system would provide an opportunity to improve industrial and manufacturing efficiency by rationalising existing practices and reducing unnecessary varieties in sizes and components.
- (6) Introduction of a metric system was widely regarded as a natural consequence of Australia's earlier conversion to decimal currency. The full advantages of decimal currency would not be experienced until decimal weights and measures were also used.
- (7) The Committee was satisfied that the ultimate benefits of conversion would greatly exceed the costs.

Metric Conversion Board

The *Metric Conversion Act* 1970 was assented to on 12 June 1970 and stated as its object (in section 5) 'to bring about progressively the use of the metric system of measurement in Australia as the sole system of measurement of physical

quantities.' It provided the Minister with powers on behalf of the Commonwealth, to do such things, make such arrangements and enter into such agreements as he thinks conducive to the attainment of this objective, and it established the Metric Conversion Board. It extended to all the Territories of the Commonwealth except the Territory of Papua and New Guinea.

In most other countries that are presently converting to the metric system, a Board has been appointed to give guidance for the change. Thus in the United Kingdom the Metrication Board was appointed in 1969, in South Africa a Metrication Advisory Board was appointed in 1967, and in New Zealand a Metric Advisory Board was appointed in 1970.

On 1 July 1970 the Metric Conversion Board of thirteen members was appointed. It comprises members who are experienced in many of the sectors for which conversion will be important. They are drawn from all States of the Commonwealth and include representatives of industry, commerce, the States and the Commonwealth.

Committees of the Board

The Government has made it clear that the metric change will be predominantly voluntary. It will be planned and implemented by those who will themselves be affected by it. Accordingly, the Board's first major task was to establish a committee structure to assist in the development and implementation of conversion programmes. All the major activities within the community likely to be affected by metric conversion were identified. They were then grouped so that each activity group would have an Advisory Committee responsible for its conversion. Each Advisory Committee was supported by several Sector Committees. These comprised nominees from appropriate organisations, national associations and institutes, and Government departments. They were established to cover specific activities. Where a specific aspect of conversion requires detailed consideration a panel may be appointed to report to a Sector Committee.

The Advisory Committees are each chaired by a Board Member and have the task of co-ordinating the programmes and proposals for conversion before submitting them to the Board for consideration for inclusion in overall conversion plans.

By June 1971, as indicated in the First Annual Report of the Board, all eleven Advisory Committees had been established. In all, more than 600 individual members drawn from virtually all relevant business, professional, technical and government fields had been appointed to Advisory and Sector Committees, filling some 800 committee positions.

International System of Units

In general, Australia is adopting the International System of Units commonly known by its abbreviation SI (*Systeme International*). This is the system adopted by the International General Conference on Weights and Measures.

Many people are familiar with the centimetre-gram-second (CGS) system which has long been in use in physical science. Whilst the SI system closely resembles the CGS system, it is not identical with it. Many people living in Europe are familiar with many of the SI units but they also use units which are not part of the SI system. For example, such units as the dyne and the erg do not appear in the SI system.

The International System of Units comprises a set of seven base units, some supplementary units for angular measurement, and derived units. The base units are the metre (length), kilogram (mass), second (time), ampere (electrical current), kelvin (temperature), candela (luminous intensity), and mole (amount

of substance). A striking advantage of SI over the older system is that there is only one SI unit for each physical quantity and also there are no odd multiplying factors to be remembered. Some of the derived units have special names (*e.g.* the joule, the watt) while for others the names are derived from the base units comprising them (*e.g.* the metre per second).

In addition, for larger or smaller amounts, decimal multiples or submultiples of the SI unit may be used. The names of each of these is obtained by combining a prefix with the name of the unit. The prefixes, with their symbols and values are as follows.

<i>Prefix</i>	<i>Symbol</i>	<i>Value</i>
Commonly used:		
giga	G	10^9
mega	M	10^6
kilo	k	10^3
centi	c	10^{-2}
milli	m	10^{-3}
micro	μ	10^{-6}
Less commonly used:		
tera	T	10^{12}
hecto	h	10^2
deka	da	10^1
deci	d	10^{-1}
nano	n	10^{-9}
pico	p	10^{-12}
femto	f	10^{-15}
atto	a	10^{-18}

NOTE: It is recommended that only multiples of 10^3 be used and except in special cases the prefixes hecto, deka, deci and centi should be avoided.

Some units are not decimally related to the basic SI units but are of such significance that their continued use is necessary. Notable examples are the minute and hour for time intervals, and the degree, minute and second for angular measurement. Other non-SI units such as the nautical mile (1,852 metres) are the subject of international agreements, so their use must be continued for limited applications. There are other non-SI units which are provided for practical purposes in the public interest: for example, car speeds are quoted in kilometres per hour rather than metres per second.

Special names of SI units which are recommended by the Metric Conversion Board for general use include the litre (10^{-3} cubic metres), the tonne (1,000 kilograms) and the hectare (10,000 square metres). The millibar has been recommended for the measurement of pressure for meteorological purposes only, because of international meteorological practice. Non-SI units recommended for restricted use in particular industries only, include the nautical mile and knot for marine and aerial navigation and the kilowatt hour for the measurement of electrical energy.

The table on pages 616-7 lists the most important everyday metric units with some of the imperial units they will replace and the conversion factors.

Quantity	Imperial Unit	Metric Unit	Conversion Factors (Approximate)		
			Imperial to Metric Units	Metric to Imperial Units	
Length	inch (in)	millimetre (mm) or centimetre (cm)	1 in = 25.4 mm	1 cm = 0.394 in	
	foot (ft)	centimetre or metre (m)	1 ft = 30.5 cm	1 m = 3.28 ft	
	yard (yd)	metre (m)	1 yd = 0.914 m	1 m = 1.09 yd	
	furlong (fur)	metre (m) or kilometre (km)	1 fur = 201 m		
	mile (for navigation)	kilometre (km) international nautical mile (n mile)	1 mile = 1.61 km 1 n mile = 1,852 m	1 km = 4.97 fur 1 km = 0.621 mile	
Mass	ounce (oz)	gram (g)	1 oz = 28.3 g	1 g = 0.0353 oz	
	pound (lb)	gram (g) or kilogram (kg)	1 lb = 454 g	1 kg = 2.20 lb	
	stone	kilogram (kg)	1 stone = 6.35 kg	1 kg = 0.157 stone	
	ton	tonne (t)	1 ton = 1.02 t	1 t = 0.984 ton	
				1 cm ³ = 0.155 in ³ 1 m ³ = 10.8 ft ³	
Area	square inch (in ²)	square centimetre (cm ²)	1 in ² = 6.45 cm ²	1 m ² = 10.8 ft ²	
	square foot (ft ²)	square centimetre (cm ²) or square metre (m ²)	1 ft ² = 929 cm ²		
	square yard (yd ²)	square metre (m ²)	1 yd ² = 0.836 m ²	1 m ² = 1.20 yd ²	
	perch (p)	square metre (m ²)	1 p = 25.3 m ²	1 m ² = 0.0395 p	
	rood (rd)	hectare (ha)	1 rd = 0.101 ha	1 ha = 9.88 rd	
	acre (ac)	hectare (ha)	1 ac = 0.405 ha	1 ha = 2.47 ac	
	square mile	square kilometre (km ²)	1 square mile = 2.59 km ²	1 km ² = 0.386 square mile	
				1 cm ³ = 0.0610 in ³ 1 m ³ = 35.3 ft ³ 1 m ³ = 1.31 yd ³ 1 m ³ = 27.5 bus	
	Volume	cubic inch (in ³)	cubic centimetre (cm ³)	1 in ³ = 16.4 cm ³	
		cubic foot (ft ³)	cubic metre (m ³)	1 ft ³ = 0.0283 m ³	
cubic yard (yd ³)		cubic metre (m ³)	1 yd ³ = 0.765 m ³		
bushel (bus)		cubic metre (m ³)	1 bus = 0.0364 m ³		
				1 fl oz = 28.4 ml 1 pt = 568 ml 1 gal = 4.55 litre 1 acre foot = 1,230 m ³ 1 acre foot = 1.23 MI	
Volume (fluids)	fluid ounce (fl oz)	millilitre (ml)	1 fl oz = 28.4 ml	1 ml = 0.0352 fl oz	
	pint (pt)	millilitre (ml) or litre (l)	1 pt = 568 ml	1 litre = 1.76 pt	
	gallon (gal)	litre (l) or cubic metre (m ³)	1 gal = 4.55 litre	1 m ³ = 220 gal	
	acre foot	cubic metre (m ³) or megalitre (MI)	1 acre foot = 1,230 m ³	1 MI = 0.811 acre foot	

Force	pound-force (lbf) ton-force (tonf)	newton (N) kilonewton (kN)	1 lbf = 4.45 N 1 tonf = 9.96 kN	1 N = 0.225 lbf 1 kN = 0.100 tonf
Pressure	pounds per square inch (psi) atmosphere (atm) ton per square inch (ton/in ²) (for meteorology) inch of mercury (inHg)	kilopascal (kPa) kilopascal (kPa) or megapascal (MPa) megapascal (MPa) millibar (mb)	1 psi = 6.89 kPa 1 atm = 101 kPa 1 ton/in ² = 15.4 MPa 1 inHg = 33.9 mb 1 mb = 100 Pa	1 kPa = 0.145 psi 1 MPa = 9.87 atm 1 MPa = 0.0647 ton/in ² 1 mb = 0.0295 inHg 1 mb = 100 Pa
Velocity	mile per hour (mph) (for navigation) knot (kn)	kilometre per hour (km/h) knot (kn)	1 mph = 1.61 km/h 1 kn = 1.85 km/h	1 km/h = 0.621 mph 1 kn = 1.85 km/h
Temperature	degree Fahrenheit (°F)	degree Celsius (°C)	$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32)$	$^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$
Density	pound per cubic inch (lb/in ³) ton per cubic yard	gram per cubic centimetre (g/cm ³) = tonne per cubic metre (t/m ³) tonne per cubic metre (t/m ³)	1 lb/in ³ = 27.7 g/cm ³ 1 lb/in ³ = 27.7 t/m ³ 1 ton/yd ³ = 1.33 t/m ³	1 g/cm ³ = 0.0361 lb/in ³ 1 t/m ³ = 0.0361 lb/in ³ 1 t/m ³ = 0.752 ton/yd ³
Energy	British thermal unit (Btu) therm (for electrical energy)	kilojoule (kJ) megajoule (MJ) kilowatt hour (kWh)	1 Btu = 1.06 kJ 1 therm = 106 MJ 1 kWh = 3.60 MJ	1 kJ = 0.948 Btu 1 MJ = 9.48 × 10 ⁻⁸ therm 1 kWh = 3.60 MJ
Power	horsepower (hp)	kilowatt (kW)	1 hp = 0.746 kW	1 kW = 1.34 hp
Time	second (s) minute (min) hour (h)	second (s) minute (min) hour (h)	1 min = 60 s 1 h = 3,600 s	1 min = 60 s 1 h = 3,600 s
Frequency	cycle per second (c/s)	hertz (Hz)	1 c/s = 1 Hz	1 Hz = 1 c/s
Angular Velocity	revolution per minute (rpm)	radian per second (rad/s) revolution per minute (rpm)	1 rpm = 0.105 rad/s	1 rad/s = 9.55 rpm

Programme and Planning

Conversion is expected to proceed simultaneously throughout many different sectors of the community. Unlike the decimal currency change there will be no single starting or finishing date for the change. For some activities such as for pharmaceuticals, the change has already been made.

Each sector is developing a programme appropriate to its activities and circumstances, but in doing so account must be taken of related activities in other sectors. The structure of Sector and Advisory Committees established by the Board is intended to facilitate the development of individual programmes and their integration into an overall conversion programme.

The broad aim laid down by the Government in 1970 was that conversion should be substantially complete by 1980. Within this broad objective the following stages of implementation have been established:

- 1970-71 Planning and co-ordination;
- 1972 Increasing public awareness;
- 1973-75 Major implementation;
- 1976, 70-80 per cent of nation's activity to be converted.

Progress is generally on schedule. Programmes are being issued for many sectors of commerce and industry, while conversion has already been achieved in limited areas.

Detailed Programmes

Conversion has been completed in the following areas:

Clay bricks, meteorology (temperature forecasts), horse racing, packaged goods (sole metric marking permitted), customs-excise tariffs, tide tables, wool sales (bulk), new land titles.

During 1972 conversion was initiated in the following areas:

Primary Education, farm milk tanks, wholesale meat, wine industry (bulk), wheat, barley, and coarse grains, sugar.

During 1973 conversion is expected to be complete in the following areas:

Advertising, bread, building and construction (design), concrete bricks, all primary and secondary education, flat glass manufacture, furniture, retail meat, wind speed forecasts, paper, pharmaceutical packaging, printing, plastics and chemicals, ready-mixed concrete, storage, transport freight rates, water and sewerage rates.

References

Report of the Senate Select Committee on the Metric System, Parliamentary Paper No. 19 of 1968.

Metric Conversion for Australia, Metric Conversion Board 1971.

First Annual Report of the Metric Conversion Board for the year 1970-71, Parliamentary Paper No. 260.

APPENDIX A

STATISTICAL SUMMARY

In the next 22 pages, a historical summary of some of the more important statistics relating to South Australia is shown. This is intended to present a general picture of the development of the State, with details being given (wherever they are available) for every 5th year for the period 1836-1926, and for each single year thereafter. Naturally the range of statistics available for the early years of the colony is very limited, and in addition it is not always possible to achieve perfect comparability in presenting details covering a period in excess of 130 years. Generally, all series on each page relate to either financial or calendar years but some financial year series have been included on pages which contain information shown in calendar years.

The first year shown on each page is the earliest for which any series on that page is available. Blanks at the top of some columns indicate that information relating to these particular series either was not collected or is not available for these early years, or is not available on a basis comparable to more recent statistics.

All major breaks in series are covered by footnotes, but minor changes are not so recorded, and the statistics should be interpreted with this in mind. An example can be quoted from the table on deaths from principal causes (page 621) 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 available

— nil

p preliminary information subject to revision

* not yet available

——— break in continuity of figures

STATISTICAL SUMMARY

POPULATION

Year	Population Estimate at 31 Dec. (a)			Population Growth			
				Recorded Natural Increase	Rate of Natural Increase	Total Increase	Rate of Population Growth
	Males	Females	Persons	(b)	(c)	(a)	%
1836	309	237	546			546	
1841	8,755	6,730	15,485			855	5.84
1846	14,711	11,182	25,893			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	9,974	16.95	9,974	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
1932	290,254	289,039	579,293	3,564	6.16	2,214	0.38
1933	291,727	291,019	582,746	3,996	6.88	3,453	0.60
1934	292,531	291,958	584,489	3,056	5.24	1,743	0.30
1935	293,667	293,095	586,762	3,107	5.31	2,273	0.39
1936	294,835	294,935	589,770	3,447	5.86	3,008	0.51
1937	295,653	296,144	591,797	3,738	6.34	2,027	0.34
1938	297,604	298,238	595,842	3,871	6.53	4,045	0.68
1939 (e)	299,212	300,101	599,313	3,809	6.50	3,471	0.58
1940 (e)	297,885	301,171	599,056	4,309	7.19	-257	-0.04
1941 (e)	301,645	304,721	606,366	4,677	7.78	7,310	1.22
1942 (e)	303,511	307,467	610,978	4,566	7.50	4,612	0.76
1943 (e)	305,655	310,372	616,027	6,663	10.86	5,049	0.83
1944 (e)	308,853	314,177	623,030	7,327	11.83	7,003	1.14
1945 (e)	312,588	318,294	630,882	7,984	12.73	7,852	1.26
1946 (e)	317,238	323,180	640,418	9,352	14.72	9,536	1.51
1947 (e)	325,399	329,233	654,632	10,125	15.62	14,214	2.22
1948	335,085	335,530	670,615	9,122	13.79	15,983	2.44
1949	349,600	346,018	695,618	9,669	14.21	25,003	3.73
1950	364,705	358,138	722,843	10,566	14.89	27,225	3.91
1951	375,188	368,597	743,785	10,279	14.03	20,942	2.90
1952	388,433	380,137	768,570	10,834	14.35	24,785	3.33
1953	397,610	388,055	785,665	11,194	14.42	17,095	2.22
1954	409,733	398,517	808,250	11,048	13.87	22,585	2.87
1955	423,042	411,619	834,661	10,958	13.36	26,411	3.27
1956	436,807	425,145	861,952	11,371	13.40	27,291	3.27
1957	448,411	437,841	886,252	11,960	13.68	24,300	2.82
1958	458,401	449,652	908,053	12,304	13.72	21,801	2.46
1959	471,868	462,629	934,497	12,429	13.49	26,444	2.91
1960	483,802	473,220	957,022	13,162	13.93	22,525	2.41
1961	493,356	483,765	977,121	14,584	15.03	20,099	2.10
1962	501,920	493,910	995,830	13,129	13.32	18,709	1.91
1963	513,255	506,535	1,019,790	13,166	13.06	23,960	2.41
1964	527,594	521,557	1,049,151	11,960	11.56	29,361	2.88
1965	542,635	537,312	1,079,947	12,103	11.38	30,796	2.94
1966	554,000	549,800	1,103,700	11,017	10.07	20,684	1.92
1967	559,300	556,700	1,115,900	11,315	10.19	12,186	1.10
1968	566,700	565,400	1,132,100	11,291	10.06	16,211	1.45
1969	574,700	574,700	1,149,400	12,640	11.09	17,238	1.52
1970	584,400	585,900	1,170,200	12,479	10.77	20,855	1.81
1971	591,700	593,800	1,185,500	13,310	11.31	15,265	1.30
1972	596,100	600,400	1,196,500	12,080	10.16	11,046	0.93

(a) Figures before January 1966 exclude full-blood Aborigines. (b) Births and deaths of full-blood Aborigines, where identified in registrations, have been excluded from natural increase figures before 1 January 1966. (c) Excess of births over deaths per 1,000 of mean population. The population used in the calculation of rate is inclusive or exclusive of full-blood Aborigines as appropriate. (d) Northern Territory included before 1901, but subsequently excluded. (e) During the 1914-18 War, defence personnel leaving the State were treated as departures, but during the 1939-45 War they were retained in the population and troops of other States and countries were excluded.

DEMOGRAPHY

Year	Births		Infant Deaths (a)		Deaths				
	Number	Rate (b)	Number	Rate (c)	Number	Rate (b)	Rates from Principal Causes (b)		
							Diseases of the Heart	Cancer	Tuberculosis
1846.....	937	36.19			360	14.02			
1851.....	2,759	41.47	539	195.36	973	14.62			
1856.....	4,488	41.60	610	135.92	1,147	10.63		0.05	0.98
1861.....	5,551	43.30	1,064	191.68	1,962	15.30		0.08	1.25
1866.....	6,782	41.06	1,385	204.22	2,753	16.67		0.16	1.25
1871.....	7,082	37.95	851	120.16	2,378	12.74		0.18	1.05
1876.....	8,224	37.84	1,228	149.32	3,550	16.34		0.35	1.22
1881.....	10,708	38.08	1,364	127.38	4,012	14.27		0.32	1.16
1886.....	11,177	36.29	1,409	126.06	4,234	13.75		0.34	1.34
1891.....	10,737	33.36	976	90.77	4,211	13.08		0.49	1.31
1896.....	10,012	28.44	1,015	101.02	4,038	11.47		0.53	1.17
1901.....	9,079	25.41	909	100.12	3,974	11.12		0.60	1.06
1906.....	8,921	24.57	675	75.66	3,872	10.66		0.77	1.08
1911.....	11,057	28.86	670	60.60	4,038	9.81	1.04	0.74	0.85
1916.....	11,857	26.85	868	73.21	5,077	11.50	1.29	0.81	0.93
1921.....	11,974	24.09	784	65.48	4,982	10.02	1.13	0.92	0.80
1926.....	11,483	20.73	509	44.33	4,877	8.81	1.00	0.96	0.71
1927.....	11,492	20.33	614	53.43	5,128	9.07	1.03	0.94	0.64
1928.....	11,408	19.98	542	47.51	5,147	9.02	1.07	1.01	0.60
1929.....	10,665	18.63	436	40.88	5,039	8.80	1.10	1.11	0.60
1930.....	9,984	17.42	483	48.38	4,851	8.46	1.05	1.04	0.51
1931.....	9,079	15.77	330	36.35	4,888	8.49	1.39	1.20	0.58
1932.....	8,521	14.74	312	36.62	4,957	8.58	1.48	1.13	0.48
1933.....	8,900	15.32	286	32.13	4,904	8.44	1.40	1.17	0.52
1934.....	8,459	14.50	301	35.58	5,403	9.26	1.64	1.12	0.48
1935.....	8,270	14.13	289	34.95	5,163	8.82	1.76	1.04	0.44
1936.....	8,911	15.16	277	31.09	5,464	9.29	1.87	1.26	0.40
1937.....	8,985	15.24	297	33.06	5,247	8.90	1.77	1.23	0.44
1938.....	9,410	15.86	287	30.50	5,539	9.34	2.02	1.30	0.37
1939.....	9,618	16.11	336	34.93	5,739	9.61	2.21	1.18	0.38
1940.....	10,017	16.72	356	35.54	5,708	9.53	2.25	1.25	0.37
1941.....	10,965	18.24	356	32.47	6,288	10.46	2.62	1.26	0.37
1942.....	11,278	18.51	448	39.72	6,712	11.02	2.73	1.25	0.41
1943.....	13,145	21.43	482	36.67	6,482	10.57	2.82	1.31	0.35
1944.....	13,311	21.49	387	29.07	5,984	9.66	2.64	1.27	0.30
1945.....	14,033	22.38	394	28.08	6,049	9.65	2.87	1.23	0.32
1946.....	15,813	24.90	428	27.07	6,461	10.17	3.03	1.29	0.29
1947.....	16,317	25.23	396	24.27	6,215	9.61	2.86	1.28	0.30
1948.....	15,870	24.00	472	29.74	6,748	10.20	3.08	1.42	0.28
1949.....	16,042	23.58	444	27.68	6,373	9.37	2.90	1.23	0.21
1950.....	17,306	24.39	416	24.04	6,740	9.50	3.05	1.24	0.19
1951.....	17,463	23.84	428	24.51	7,184	9.81	3.24	1.24	0.15
1952.....	17,884	23.69	413	23.09	7,050	9.34	3.10	1.29	0.12
1953.....	18,156	23.39	375	20.65	6,962	8.97	3.00	1.27	0.06
1954.....	18,227	22.89	388	21.29	7,179	9.01	3.11	1.22	0.08
1955.....	18,494	22.55	431	23.30	7,536	9.19	3.12	1.28	0.06
1956.....	18,964	22.35	377	19.88	7,593	8.95	3.24	1.16	0.05
1957.....	19,536	22.35	403	20.63	7,576	8.67	2.91	1.29	0.05
1958.....	20,047	22.35	449	22.40	7,743	8.63	2.93	1.26	0.07
1959.....	20,372	22.12	422	20.71	7,943	8.62	2.89	1.22	0.05
1960.....	20,966	22.19	397	18.94	7,804	8.26	3.06	1.21	0.04
1961.....	22,399	23.09	448	20.00	7,815	8.06	2.92	1.26	0.06
1962.....	21,361	21.67	409	19.15	8,232	8.35	3.06	1.37	0.03
1963.....	21,367	21.20	399	18.67	8,201	8.14	2.99	1.27	0.04
1964.....	20,866	20.16	397	19.03	8,906	8.61	3.24	1.32	0.01
1965 (d).....	20,891	19.63	385	18.43	8,788	8.26	3.11	1.30	0.03
1966.....	20,362	18.61	364	17.88	9,345	8.54	3.22	1.32	0.02
1967.....	20,386	18.37	346	16.97	9,071	8.17	3.09	1.35	0.02
1968.....	21,207	18.89	345	16.27	9,916	8.83	3.29	1.41	0.02
1969.....	21,977	19.28	347	15.79	9,337	8.19	2.96	1.47	0.02
1970.....	22,617	19.52	367	16.23	10,138	8.75	3.20	1.43	0.01
1971.....	22,996	19.55	366	15.92	9,686	8.23	2.91	1.41	0.02
1972.....	21,844	18.37	367	16.80	9,764	8.21	*	*	*

(a) Under one year of age from 1871, under two years of age in prior years.

(b) Rate per 1,000 of mean population.

(c) Rate per 1,000 live births registered.

(d) Vital events of full-blood Aborigines, where identified in registrations, were excluded before 1966.

SOCIAL DEVELOPMENT
Marriages and Divorces; Law and Order

Year	Marriages		Divorces (b)	Bank- ruptcies	Court Convictions		Police (g)	
	Total	Rate (a)			Supreme Court (c)	Courts of Summary Juris- diction (d)	Active Strength	Expen- diture by State
1841.....				36	37			\$'000
1846.....	220	8.50		16	40			
1851.....	189	2.84		106	103		127	
1856.....	1,171	10.85		88	85	2,919	174	
1861.....	1,158	9.03		115	62	3,025	151	
1866.....	1,299	7.86		252	107	4,341	208	90
1871.....	1,250	6.70		247	91	4,864	187	74
1876.....	1,852	8.52		200	129	7,905	257	108
1881.....	2,308	8.21		696	213	13,231	371	164
1886.....	1,976	6.42	10	535	121	6,808	401	178
1891.....	2,315	7.21	5	142	85	6,918	388	172
1896.....	2,183	6.20	6	240	110	5,149	347	150
1901.....	2,304	6.45	6	165	98	4,968	359	152
1906.....	2,679	7.38	3	172	92	5,249	373	153
1911.....	4,036	9.80	20	190	74	7,303	423	183
1916.....	3,602	8.16	14	324	52	7,145	541	262
1921.....	4,383	8.82	88	155	97	8,968	566	391
1926.....	4,503	8.13	71	439	174	21,417	633	499
1927.....	4,501	7.96	97	493	196	22,876	645	524
1928.....	4,146	7.26	113	446	264	18,665	717	550
1929.....	3,719	6.50	106	306	261	17,353	802	630
1930.....	3,312	5.78	146	622	304	15,609	785	656
1931.....	3,069	5.33	138	996	274	14,760	763	641
1932.....	3,636	6.29	134	654	236	14,705	743	586
1933.....	3,973	6.84	163	570	224	13,060	740	550
1934.....	4,310	7.39	188	626	206	13,728	719	549
1935.....	4,845	8.28	211	597	172	14,838	705	556
1936.....	5,182	8.81	213	551	171	14,920	701	570
1937.....	5,340	9.06	206	468	183	17,297	692	599
1938.....	5,489	9.25	243	461	172	18,341	712	641
1939.....	5,670	9.50	241	630	179	20,429	724	(e)654
1940.....	6,950	11.60	309	437	163	18,364	723	677
1941.....	6,855	11.40	273	284	177	21,990	707	689
1942.....	8,129	13.34	312	222	211	(f)	680	695
1943.....	6,263	10.21	452	93	208	22,502	674	712
1944.....	6,019	9.72	503	49	158	22,079	704	734
1945.....	5,321	8.49	617	24	203	20,554	771	770
1946.....	6,700	10.55	654	23	231	20,585	830	819
1947.....	6,668	10.31	695	32	246	24,491	833	888
1948.....	6,704	10.14	630	32	185	24,164	869	1,052
1949.....	6,247	9.18	590	52	205	22,834	928	1,208
1950.....	6,585	9.28	661	44	207	25,496	942	1,398
1951.....	6,646	9.07	637	53	307	28,675	913	1,647
1952.....	6,241	8.27	581	76	328	27,432	952	2,073
1953.....	6,149	7.92	628	91	330	30,229	982	2,429
1954.....	6,190	7.77	594	89	312	25,482	986	2,617
1955.....	6,226	7.59	624	106	340	29,264	969	2,517
1956.....	6,277	7.40	567	150	362	28,221	1,018	3,060
1957.....	6,581	7.53	529	244	459	30,658	1,143	3,303
1958.....	6,505	7.25	483	278	457	32,621	1,183	3,677
1959.....	6,614	7.18	503	366	499	34,203	1,243	4,084
1960.....	6,607	6.99	610	368	580	42,531	1,301	4,499
1961.....	6,804	7.01	718	561	606	52,155	1,376	5,043
1962.....	7,021	7.12	685	620	718	53,531	1,466	5,651
1963.....	7,302	7.24	765	584	745	57,189	1,441	5,825
1964.....	7,765	7.50	887	675	629	55,408	1,496	6,245
1965.....	8,680	8.16	852	582	713	62,238	1,558	6,912
1966.....	9,051	8.27	1,069	648	738	71,694	1,595	7,319
1967.....	9,434	8.50	929	660	707	87,110	1,660	8,417
1968.....	9,652	8.60	915	759	692	105,027	1,777	9,137
1969.....	10,599	9.30	963	659	712	105,966	1,845	9,568
1970.....	10,864	9.38	939	611	(h) 694	114,499	1,881	10,621
1971.....	10,833	9.21	1,264	681	931	110,543	1,971	12,181
1972.....	10,829	9.10	1,235	577	964	123,063	2,063	12,961

- (a) Rate per 1,000 of mean population. (b) Dissolutions made absolute. (c) Distinct persons only.
(d) Each type of offence counted separately when there are multiple charges against an individual.
(e) Net expenditure from 1939, previously gross expenditure. (f) Year ended 30 June from 1943.
(g) Year ended 30 June. (h) From late 1970 covers also District Criminal Courts to which some juris-
diction transferred.

SOCIAL DEVELOPMENT
Education

Year	Number of Schools (a)		Number of Pupils (a)				Universities		State Expenditure on Education (d)
	State	Private (Primary and Secondary)	State Schools			Private Schools (Primary and Secondary)	Students	Receipts (including Government Grants)	
			Primary (b)	Secondary (b)	Technical (c)				
							\$'000	\$'000	
1851.....	115		3,031					6	
1856.....	147		6,516					24	
1861.....	219	236	10,711					30	
1866.....	292	n.a.	14,690					44	
1871.....	307	n.a.	15,791					48	
1876.....	281	326	25,889				58	116	
1881.....	405	363	36,888				74	268	
1886.....	n.a.	504	44,405				197	256	
1891.....	552	285	47,094				246	266	
1896.....	639	232	59,944				320	312	
1901.....	706	230	63,183				591	390	
1906.....	708	215	57,270			9,753	626	380	
1911.....	743	179	53,494	1,800	2,811	11,121	641	522	
1916.....	857	(e)218	63,935	3,047	3,571	(e)12,785	491	650	
1921.....	973	171	77,111	3,067	6,045	13,951	1,338	1,183	
1926.....	1,019	188	79,204	6,527	7,216	16,139	1,575	1,762	
1927.....	1,028	186	80,298	7,472	7,748	15,750	1,724	2,093	
1928.....	1,043	184	81,231	8,060	7,750	15,857	1,778	2,184	
1929.....	1,068	189	80,618	8,861	8,324	16,087	1,813	2,256	
1930.....	1,074	188	80,332	9,558	7,783	15,599	2,085	2,330	
1931.....	1,075	186	81,218	10,503	6,585	14,310	2,092	2,185	
1932.....	1,087	183	80,905	9,880	6,302	13,887	2,084	2,190	
1933.....	1,107	187	80,215	9,683	6,808	13,861	2,123	2,461	
1934.....	1,111	185	78,753	8,778	7,457	14,189	2,066	2,338	
1935.....	1,123	185	77,714	8,936	8,339	13,971	2,072	2,301	
1936.....	1,100	174	75,411	9,280	8,654	7,808	2,025	2,117	
1937.....	1,091	175	72,849	9,722	9,247	10,920	2,113	2,238	
1938.....	1,078	166	69,664	9,701	9,210	9,529	2,307	2,359	
1939.....	1,054	170	66,861	10,608	9,721	10,700	2,354	2,452	
1940.....	1,060	165	65,682	10,546	9,980	13,621	2,443	2,523	
1941.....	1,006	167	63,303	10,761	10,518	13,915	2,211	2,515	
1942.....	950	164	61,326	10,173	9,768	14,220	1,799	2,563	
1943.....	897	158	59,764	11,196	10,952	15,328	1,897	2,588	
1944.....	909	155	59,460	12,265	12,534	15,868	2,132	2,816	
1945.....	837	147	60,029	11,583	14,178	16,312	2,599	3,096	
1946.....	811	145	61,242	11,870	16,175	16,310	3,723	3,387	
1947.....	782	143	63,853	11,723	16,665	16,468	4,045	4,001	
1948.....	773	142	66,653	11,550	18,145	17,169	4,266	4,673	
1949.....	759	146	71,337	11,922	18,664	18,426	4,126	5,210	
1950.....	743	148	76,369	12,732	18,910	19,655	4,069	6,201	
1951.....	728	146	81,642	14,106	18,961	20,677	3,720	7,806	
1952.....	716	146	89,630	15,121	20,206	22,393	3,612	9,842	
1953.....	723	148	97,262	16,933	20,542	23,631	3,565	12,097	
1954.....	716	157	105,022	17,972	21,785	24,949	3,555	13,020	
1955.....	701	157	111,909	19,485	23,078	26,840	3,617	14,458	
1956.....	699	163	118,365	22,134	25,647	29,050	3,828	17,293	
1957.....	694	163	123,132	24,734	27,482	30,504	4,424	18,980	
1958.....	674	161	125,678	28,189	31,383	31,792	4,816	21,475	
1959.....	668	162	129,850	33,042	33,809	33,201	5,300	25,767	
1960.....	681	163	132,372	37,901	30,404	34,996	5,723	29,944	
1961.....	688	165	135,274	41,889	31,140	35,654	6,250	34,471	
1962.....	682	164	136,924	46,499	32,760	36,402	6,824	40,309	
1963.....	682	166	140,520	49,637	34,193	37,031	7,416	44,842	
1964.....	685	170	145,042	54,026	38,448	37,651	8,203	50,854	
1965.....	700	172	150,809	57,811	41,858	37,612	8,658	57,362	
1966.....	700	172	154,253	60,834	43,391	37,187	9,364	64,562	
1967.....	674	173	157,424	65,630	43,056	37,002	9,997	68,286	
1968.....	683	171	157,997	68,814	41,314	36,413	10,095	75,000	
1969.....	676	171	159,682	71,599	45,231	36,460	10,411	83,035	
1970.....	681	170	164,599	n.a.	44,695	37,106	10,472	97,602	
1971.....	662	169	158,482	77,167	51,068	37,687	10,889	117,242	
1972.....	641	163	157,335	78,566	*	37,465	11,334	*	

(a) Includes Northern Territory before 1958.

(b) Net enrolment. Includes correspondence pupils and pupils receiving junior technical education.

(c) Net enrolment plus correspondence pupils. Includes Institute of Technology.

(d) Year ended 30 June. Gross expenditure from Consolidated Revenue only.

(e) Private schools compulsorily registered—previous years incomplete.

STATISTICAL SUMMARY

SOCIAL DEVELOPMENT

Health

Year	Public Hospitals				Mental Hospitals (a)		Medical Practitioners Registered	Nurses Registered
	Number of Hospitals	Patients Treated	Revenue		Admissions During Year	Patients at end of Year		
			Govt Aid	Total				
			\$'000	\$'000				
1846.....	1				10	6	22	
1851.....	1	413			9	11	68	
1856.....	1	559			69	73	101	
1861.....	1	795			68	167	111	
1866.....	1	1,257			88	224	85	
1871.....	1	1,433			111	324	77	
1876.....	1	2,282			149	427	94	
1881.....	1	2,258			199	606	113	
1886.....	1	2,022			207	744	152	
1891.....	1	2,301			224	815	177	
1896.....	1	2,633			195	934	279	
1901.....	1	3,554			214	988	341	
1906.....	9	4,476			231	994	242	
1911.....	21	8,547	96	132	273	1,084	299	
1916.....	27	12,453	130	186	302	1,158	326	
1921.....	31	15,642	254	397	272	1,190	360	
1926.....	45	22,438	467	730	249	1,282	445	1,271
1927.....	46	24,480	500	751	272	1,306	476	1,309
1928.....	47	25,167	452	741	280	1,350	437	1,399
1929.....	49	25,787	601	915	260	1,374	445	1,472
1930.....	50	26,114	451	736	260	1,404	445	1,565
1931.....	51	26,505	356	574	250	1,395	457	1,601
1932.....	52	28,780	354	591	250	1,410	461	1,650
1933.....	52	29,306	405	678	271	1,465	464	1,687
1934.....	52	31,686	377	659	267	1,519	461	1,757
1935.....	52	31,878	369	652	269	1,572	480	1,826
1936.....	52	34,014	383	730	272	1,627	477	1,886
1937.....	52	35,477	414	775	270	1,709	509	1,977
1938.....	52	37,285	502	891	254	1,747	792	2,068
1939.....	55	39,146	539	931	286	1,800	804	2,239
1940.....	56	41,392	575	1,017	240	1,847	802	2,359
1941.....	55	40,593	607	1,063	247	1,905	814	2,562
1942.....	55	40,137	625	1,200	219	1,892	839	2,768
1943.....	57	41,620	642	1,301	197	1,889	846	2,914
1944.....	58	43,582	762	1,479	276	1,925	866	3,006
1945.....	(b)	(b)	(b)	(b)	(b)	(b)	883	3,153
1946.....	58	46,696	836	1,697	302	2,024	947	3,314
1947.....	59	52,388	1,135	2,133	332	2,107	983	3,380
1948.....	59	50,480	1,382	2,476	330	2,165	1,012	3,589
1949.....	60	53,558	1,671	3,065	398	2,213	1,053	3,808
1950.....	59	54,334	2,109	3,719	379	2,310	1,111	4,018
1951.....	60	57,401	2,694	4,503	452	2,411	1,172	4,199
1952.....	61	59,374	3,739	6,110	426	2,425	1,244	4,461
1953.....	62	61,681	4,673	7,442	498	2,534	1,202	4,585
1954.....	62	62,138	4,340	7,386	548	2,644	1,265	4,724
1955.....	63	64,310	5,524	8,819	516	2,612	1,348	4,884
1956.....	65	69,295	8,214	11,702	553	2,658	1,395	5,026
1957.....	65	73,249	11,370	15,449	543	2,594	1,469	5,122
1958.....	64	75,282	10,425	15,372	659	2,667	1,507	5,475
1959.....	65	79,426	10,260	15,638	712	2,643	1,601	5,583
1960.....	65	82,948	10,474	16,829	1,637	2,810	1,681	5,817
1961.....	66	87,386	10,155	17,414	1,846	2,833	1,739	6,123
1962.....	65	89,409	10,366	18,350	1,925	2,914	1,821	6,523
1963.....	65	94,144	10,007	19,307	2,604	2,799	1,883	6,879
1964.....	65	99,491	12,094	21,166	3,132	2,838	2,002	7,255
1965.....	65	105,098	14,171	24,084	3,061	2,752	2,080	7,699
1966.....	67	111,313	19,681	30,386	2,810	2,646	2,175	8,065
1967.....	65	117,693	22,138	34,532	2,866	2,497	2,282	8,467
1968.....	65	122,835	16,626	31,039	2,733	2,465	2,372	8,832
1969.....	65	132,864	21,364	37,064	2,964	2,283	2,474	9,275
1970.....	66	135,433	23,198	41,500	3,378	2,269	2,568	9,855
1971.....	67	139,842	32,971	53,942	3,527	2,193	2,707	10,506
1972.....	68	150,964	42,373	69,935	3,603	2,159	3,054	11,201

(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.

EMPLOYMENT AND UNEMPLOYMENT

Year	Total Wage and Salary Earners (a)		Factory Employment (b)		Rural Employment (c)		Unemployment Benefits		Unemployed Registered (end June) (d)
	Males	Females	Males	Females	Males	Females	Average No. on Benefit	Amount Paid	
	'000	'000	'000	'000	'000	'000	\$'000		
1911			22.6	5.3					
1912			23.1	5.4					
1913			23.3	5.2					
1914			22.1	4.8					
1915			20.8	4.7					
1916-17			20.8	5.2					
1917-18			21.3	5.3					
1918-19			22.4	5.5					
1919-20			23.4	6.0					232
1920-21			24.5	5.9					688
1921-22			25.0	6.2					880
1922-23			28.0	6.7					443
1923-24			30.3	7.0	37.9	3.5			491
1924-25			31.2	7.1	38.4	3.3			718
1925-26			33.1	6.9	38.8	3.2			1,391
1926-27			34.1	7.0	38.8	2.7			1,900
1927-28			32.3	6.8	38.7	2.5			5,009
1928-29			30.4	6.4	38.8	2.2			5,825
1929-30			26.5	5.7	38.4	2.3			11,297
1930-31			19.3	4.6	38.9	2.6			23,588
1931-32			18.9	4.9	39.2	2.8			23,738
1932-33			20.9	5.4	39.7	3.1			20,516
1933-34			23.7	5.7	40.0	3.4			16,559
1934-35			27.3	6.2	41.4	3.1			13,111
1935-36			31.4	7.1	41.7	2.6			10,970
1936-37			33.4	7.3	42.3	3.0			8,033
1937-38			36.3	7.8	41.4	2.9			7,737
1938-39			35.4	8.0	41.3	2.5			8,574
1939-40			36.3	8.7	38.7	2.8			5,978
1940-41			40.1	10.8	n.a.	n.a.			1,745
1941-42			49.9	15.3	n.a.	n.a.			—
1942-43			52.8	20.0	29.6	5.1			—
1943-44			50.7	18.9	32.9	6.5			—
1944-45			49.1	16.4	33.6	6.2			—
1945-46			49.5	13.7	35.7	5.5	778	146.4	3,147
1946-47			56.7	14.0	38.1	5.0	200	40.2	1,310
1947-48			59.1	14.3	38.1	5.8	51	8.0	778
1948-49			60.9	14.9	38.1	5.5	14	1.2	654
1949-50			63.1	15.3	38.6	7.0	326	66.2	431
1950-51			66.8	16.2	36.9	6.1	6	0.8	406
1951-52			68.0	15.9	37.4	4.7	17	2.0	1,613
1952-53			67.1	13.4	38.3	5.0	841	264.0	2,343
1953-54	178.6	55.7	70.7	14.8	37.8	5.6	270	100.4	964
1954-55	183.9	60.1	73.7	15.9	37.6	5.0	66	24.8	1,207
1955-56	194.0	64.0	76.1	16.4	37.3	4.7	77	22.2	1,948
1956-57	193.3	64.1	75.5	16.4	36.4	3.9	681	227.4	3,363
1957-58	194.4	65.9	75.9	16.6	35.2	2.7	1,534	611.0	5,082
1958-59	201.1	68.4	77.4	16.7	35.0	3.6	1,641	724.8	3,958
1959-60	206.4	72.6	81.3	17.7	33.8	2.6	1,223	498.2	4,547
1960-61	207.5	72.3	81.9	18.1	34.0	2.3	1,610	685.6	9,035
1961-62	211.2	76.7	81.8	17.3	33.7	2.1	3,643	1,785.6	6,886
1962-63	219.6	80.9	86.7	18.6	33.3	1.9	2,244	1,184.7	6,479
1963-64	229.4	86.0	90.9	19.9	33.2	1.4	1,513	751.1	4,339
1964-65	239.9	93.4	94.7	21.5	32.6	1.3	800	390.4	3,533
1965-66	242.8	106.1	96.2	22.1	32.1	1.0	1,306	708.9	7,357
1966-67	245.7	109.8	96.1	22.1	31.3	0.8	3,094	1,653.2	8,484
1967-68	254.0	116.2	98.9	22.5	29.7	0.7	3,299	1,637.4	8,359
1968-69	261.6	121.4	(e) 74.1	(e) 19.4	29.4	0.6	2,576	1,286.1	6,300
1969-70	266.6	129.9	77.0	20.9	28.9	0.6	1,636	1,008.4	6,360
1970-71	271.7	136.3	n.a.	n.a.	28.2	0.5	2,043	1,378.3	7,975
1971-72	(f)271.1	(f)137.6	*	*	27.3	0.5	3,564	2,930.1	12,328

(a) At June; includes all industries except agriculture, defence and female private domestics. (b) Average employment including working proprietors during the year. (c) Permanent employees only. (d) Includes Northern Territory registrations. (e) Direct comparisons with figures for previous years are not possible because of changes in the scope of the census and in the census units. (f) From July 1971 excludes trainee teachers, some of whom were classified as wage earners for earlier periods.

WAGES

Year	State Living Wage (a)		Commonwealth Basic and Total Wage Rates (a) (d)		Minimum Weekly Wage Rates (b)		Average Weekly Wage of Factory Employees (c)	
	Males	Females	Males	Females	Males	Females	Males	Females
	\$	\$	\$	\$	\$	\$	\$	\$
1911			5.10				4.38	1.59
1912			5.10				4.67	1.59
1913			5.10				4.90	1.69
1914			5.55		5.44	2.41	5.05	1.73
1915			6.35		5.47	2.45	4.93	1.63
1916	5.40		6.15		5.90	2.48	n.a.	n.a.
1917	5.40		5.85		6.31	2.78	5.58	1.80
1918	6.30	2.75	6.40		6.55	2.94	5.89	1.99
1919	6.30	3.00	7.00		7.04	3.32	6.07	2.15
1920	7.50	3.00	8.95		8.27	4.06	6.22	2.47
1921	7.95	3.50	7.95		8.94	4.52	7.31	2.88
1922	7.75	3.50	7.95		8.75	4.40	7.81	3.06
1923	7.85	3.50	8.55		9.08	4.63	7.80	3.19
1924	8.20	3.80	8.40		9.18	4.65	8.18	3.38
1925	8.55	3.95	8.60		9.43	4.88	8.38	3.52
1926	8.55	3.95	8.55		9.57	5.00	8.67	3.62
1927	8.55	3.95	8.80		9.66	4.99	9.18	3.84
1928	8.55	3.95	8.50		9.62	5.09	9.42	3.95
1929	8.55	3.95	8.85		9.72	5.13	9.33	4.00
1930	7.50	3.95	7.80		9.27	5.12	9.26	3.99
1931	6.30	3.15	5.81		7.50	4.39	8.43	3.61
1932	6.30	3.15	5.72		7.26	4.09	7.45	3.17
1933	6.30	3.15	5.96		7.34	4.10	7.32	3.10
1934	6.30	3.15	6.30		7.55	4.19	7.21	3.05
1935	6.60	3.15	6.70		7.79	4.24	7.38	3.12
1936	6.60	3.30	6.90		7.95	4.33	7.49	3.12
1937	7.40	3.65	7.40		8.58	4.68	7.89	3.20
1938	7.40	3.65	7.60		8.71	4.78	8.15	3.29
1939	7.80	3.80	7.70		9.41	4.96	8.49	3.32
1940	8.40	4.10	8.00		9.85	5.21	8.60	3.49
1941	8.70	4.35	8.40		10.58	5.54	9.32	3.89
1942	9.40	4.62	9.30		11.50	6.02	11.26	5.18
1943	9.40	4.62	9.40		11.61	6.12	12.07	6.05
1944	9.40	4.62	9.30		11.58	6.53	12.11	6.56
1945	9.40	4.62	9.30		11.60	6.72	11.74	6.34
1946	9.85	5.50	10.20		12.41	7.60	11.76	6.00
1947	10.60	5.90	10.60		13.78	8.80	12.74	6.52
1948	11.70	6.65	11.60		15.22	9.51	14.82	7.67
1949	12.50	6.85	12.60		16.44	10.10	16.99	8.76
1950	15.80	11.85	15.80	11.85	19.79	14.21	18.74	9.90
1951	19.50	14.60	19.50	14.60	23.60	17.02	22.43	12.38
1952	22.90	17.15	22.90	17.15	27.08	19.68	27.55	15.60
1953	23.10	17.30	23.10	17.30	27.35	19.91	30.00	17.38
1954	23.10	17.30	23.10	17.30	28.16	19.99	31.71	17.92
1955	23.10	17.30	23.10	17.30	28.50	20.18	33.97	18.35
1956	24.10	18.05	24.10	18.05	29.63	20.92	35.59	19.11
1957	25.10	18.80	25.10	18.80	30.69	21.95	36.67	19.52
1958	25.60	19.20	25.60	19.20	31.24	22.38	37.32	20.63
1959	27.10	20.30	27.10	20.30	33.99	23.92	38.17	20.90
1960	27.10	20.30	27.10	20.30	34.22	24.29	41.85	22.13
1961	28.30	21.20	28.30	21.20	35.46	25.20	43.28	22.78
1962	28.30	21.20	28.30	21.20	35.65	25.23	43.86	23.47
1963	28.30	21.20	28.30	21.20	36.40	25.52	45.71	23.86
1964	30.30	22.70	30.30	22.70	38.69	27.29	47.25	25.23
1965	30.30	22.70	30.30	22.70	39.48	27.75	51.72	26.39
1966	32.30	24.20	32.30	24.20	41.75	29.42	52.30	27.31
1967	33.30	25.20	(d) 37.05		43.79	31.32	55.39	28.89
1968	34.65	26.55	38.40		48.23	33.60	59.45	30.62
1969	(e) 34.65	(e) 26.55	41.90		50.76	35.94	51.76	
1970	(e) 34.65	(e) 26.55	41.90		52.12	37.51	p 56.51	
1971	37.85	29.00	45.90		59.41	44.12	n.a.	
1972	39.85	31.00	50.60		64.79	50.16	*	

(a) At end of year.

(b) Adult rates, at end of year, for all industries excluding rural.

(c) Excludes drawings of working proprietors.

(d) The total wage concept replaced the basic wage from July 1967. A separate total wage for women is not calculated.

(e) 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.

STATISTICAL SUMMARY

PRICES

Year	Retail Price Indexes: Adelaide						Agricultural Produce at Principal Markets		
	'C' Series (a)			Consumer (b)			Wheat (per bushel) (c)	Barley (per bushel)	Wool (per kg)
	Food and Groceries	Rent	All Groups	Food	Housing	All Groups			
1901.....	575						\$	\$	cents
1906.....	549								
1911.....	570						0.346	0.375	15.59
1912.....	645						0.379	0.400	14.02
1913.....	626						0.358	0.375	16.31
1914.....	683	611	699				0.367	0.250	15.90
1915.....	858	574	780				0.725	0.550	15.37
1916.....	835	573	798				0.475	0.325	19.78
1917.....	805	606	832				0.475	0.367	25.11
1918.....	862	656	887				0.475	0.442	26.37
1919.....	1,012	707	1,018				0.550	0.542	26.76
1920.....	1,225	783	1,164				0.900	0.600	25.93
1921.....	941	819	989				0.800	0.442	24.74
1922.....	937	852	954				0.504	0.383	21.96
1923.....	1,019	887	1,008				0.492	0.375	32.63
1924.....	1,002	942	1,015				0.467	0.333	40.41
1925.....	1,029	963	1,028				0.608	0.542	42.20
1926.....	1,045	927	1,026				0.621	0.400	27.45
1927.....	1,030	942	1,018				0.529	0.363	27.23
1928.....	993	1,022	1,027				0.544	0.496	31.90
1929.....	1,055	986	1,037				0.473	0.377	27.49
1930.....	937	916	952				0.433	0.308	16.69
1931.....	789	755	837				0.229	0.225	12.52
1932.....	761	691	802				0.317	0.296	12.63
1933.....	731	694	789				0.281	0.223	13.45
1934.....	767	700	806				0.263	0.242	25.07
1935.....	780	736	820				0.304	0.271	15.04
1936.....	798	795	839				0.383	0.223	21.89
1937.....	826	832	859				0.515	0.406	25.09
1938.....	861	868	888				0.356	0.352	20.72
1939.....	897	888	906				0.227	0.271	16.71
1940.....	900	892	936				0.406	0.354	21.94
1941.....	905	893	988				0.447	0.486	21.76
1942.....	1,046	893	1,075				0.456	0.332	21.58
1943.....	1,003	893	1,102				0.531	0.450	25.07
1944.....	993	892	1,098				0.618	0.432	24.96
1945.....	1,002	892	1,102				0.563	0.546	24.71
1946.....	1,006	894	1,120				0.802	0.633	24.78
1947.....	1,067	897	1,165				0.993	0.892	40.50
1948.....	1,230	903	1,277				1.543	1.685	65.92
1949.....	1,351	912	1,393	38.6	38.4	45.0	1.242	0.838	81.09
1950.....	1,494	929	1,521	41.7	40.0	48.4	1.442	1.127	106.13
1951.....	1,931	949	1,833	48.2	42.5	54.6	1.463	1.169	237.28
1952.....	2,380	1,055	2,159	62.5	47.6	66.8	1.650	1.627	118.54
1953.....	2,444	1,155	2,246	68.7	55.9	73.1	1.681	1.613	137.74
1954.....	2,525	1,174	2,277	71.2	61.5	74.7	1.452	1.017	138.18
1955.....	2,657	1,247	2,354	72.9	63.2	75.6	1.335	1.360	120.66
1956.....	2,871	1,358	2,466	76.2	67.6	78.1	1.350	1.060	103.57
1957.....	2,710	1,468	2,463	78.9	72.3	81.2	1.450	1.100	135.63
1958.....	2,768	1,592	2,536	76.9	74.9	81.8	1.456	1.188	103.09
1959.....	2,998	1,674	2,647	80.7	76.7	83.6	1.402	1.121	83.84
1960.....				84.6	78.3	86.2	1.465	1.010	98.88
1961.....				90.9	83.2	89.8	1.507	0.916	88.49
1962.....				87.7	85.9	89.5	1.516	1.121	91.69
1963.....				86.6	86.7	89.1	1.468	1.100	98.92
1964.....				88.8	88.7	90.2	1.433	1.114	119.53
1965.....				93.9	92.1	93.9	1.412	1.153	97.31
			Not calculated						
1966.....				97.1	95.7	97.0	1.501	1.176	102.98
1967.....				100.0	100.0	100.0	1.488	1.192	99.69
1968.....				104.7	102.1	102.9	1.602	1.190	82.87
1969.....				106.4	104.7	105.3	1.361	0.932	91.76
1970.....				107.1	109.3	108.2	1.451	0.835	75.02
1971.....				109.5	115.9	112.5	1.479	1.116	59.74
1972.....				113.6	124.4	119.2	p 1.541	p 0.926	72.21

(a) Base: Average all groups six capital cities 1923 to 1927 = 1,000.

(b) Base of each group 1966-67 = 100. Index numbers are for year ended 30 June in the year stated.

(c) Bulk wheat from 1962, previously bagged.

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	456					
1846.....	114	683					
1851.....	128	786					
1856.....	118	633					
1861.....	147	611			42.8	1.7	17.4
1866.....	116	511			43.1	2.9	17.7
1871.....	137	591	1,345		44.1	3.0	17.8
1876.....	110	341	1,548		45.7	0.3	16.9
1881.....	135	458	1,422		41.0	1.8	16.7
1886.....	141	366	1,421	2,588.0	44.7	2.0	17.1
1891.....	113	356	1,322	2,752.7	39.3	2.3	16.8
1896.....	121	385	1,337	2,643.9	44.0	1.3	17.4
1901.....	124	457	1,494	2,522.6	43.3	1.8	17.5
1906.....	127	674	1,400	2,366.4	45.1	2.3	17.6
1911.....	127	407	1,223	2,415.0	39.3	1.6	17.2
1916.....	142	715	1,411	2,511.9	41.9	3.5	16.7
1921.....	100	575	1,478	2,658.0	43.1	2.8	18.2
1926.....	116	564	1,473	2,688.6	40.1	3.0	17.3
1927.....	101	430	1,516	2,670.8	43.3	2.3	17.2
1928.....	107	494	1,535	2,750.2	42.6	2.9	17.4
1929.....	119	445	1,519	2,544.9	40.1	1.7	16.8
1930.....	116	474	1,683	2,744.1	44.7	2.7	18.3
1931.....	145	565	1,517	2,534.5	45.9	3.1	16.8
1932.....	141	636	1,342	2,351.9	43.5	2.7	17.0
1933.....	130	562	1,410	2,487.7	42.1	2.6	16.8
1934.....	115	514	1,565	2,528.3	43.6	3.2	18.0
1935.....	140	596	1,465	2,411.2	42.1	3.3	17.2
1936.....	123	491	1,525	2,430.8	39.8	2.8	17.1
1937.....	128	585	1,591	2,294.1	41.1	3.2	17.4
1938.....	119	489	1,681	2,425.9	41.4	2.2	17.3
1939.....	139	591	1,676	2,521.2	47.6	1.5	17.4
1940.....	116	410	1,698	2,564.6	43.4	2.5	17.0
1941.....	126	573	1,604	2,471.8	43.3	3.3	16.9
1942.....	133	646	1,674	2,422.2	44.7	3.4	17.3
1943.....	135	453	1,595	2,416.7	44.6	2.7	16.4
1944.....	114	435	1,633	2,333.7	39.7	0.3	16.8
1945.....	105	453	1,523	2,431.2	41.7	1.1	16.7
1946.....	135	574	1,385	2,301.0	41.3	2.0	16.3
1947.....	145	556	1,573	2,311.3	40.7	3.3	16.9
1948.....	122	544	1,622	2,401.7	43.4	2.9	16.3
1949.....	119	463	1,492	2,317.7	38.0	2.6	15.8
1950.....	91	408	1,657	2,677.5	40.0	3.6	17.0
1951.....	135	646	1,645	2,338.7	40.5	2.6	16.9
1952.....	128	508	1,523	2,459.2	40.8	1.6	15.8
1953.....	121	508	1,712	2,584.7	41.3	3.9	16.6
1954.....	109	425	1,680	2,502.6	39.4	3.4	16.7
1955.....	134	624	1,677	2,396.1	42.8	3.6	16.7
1956.....	154	692	1,638	2,378.6	38.3	4.1	16.4
1957.....	110	424	1,736	2,672.5	40.9	3.4	16.8
1958.....	121	446	1,672	2,454.7	39.0	1.2	16.4
1959.....	88	288	1,750	2,591.9	43.3	3.1	17.3
1960.....	129	586	1,606	2,355.6	41.8	2.4	16.3
1961.....	122	379	n.a.	2,586.3	40.8	2.9	17.8
1962.....	125	456	n.a.	2,559.1	42.7	4.2	17.2
1963.....	118	621	1,620	2,369.1	39.9	3.3	17.0
1964.....	135	556	1,507	2,199.5	40.3	2.3	16.3
1965.....	111	339	1,648	2,439.1	38.8	2.6	17.3
1966.....	123	495	1,612	2,431.6	40.7	3.3	16.9
1967.....	89	257	1,939	2,841.3	39.0	3.9	17.3
1968.....	141	653	1,870	2,409.7	43.1	2.2	17.0
1969.....	112	525	1,783	2,664.7	41.1	3.9	16.7
1970.....	149	483	1,866	2,657.8	40.5	2.9	16.6
1971.....	147	672	1,813	2,624.4	39.6	4.2	17.1
1972.....	106	446	1,947	2,966.8	39.6	2.3	17.3

LAND TENURE AND CULTIVATION

Year	Land Tenure			Rural Holdings	Area of Rural Holdings	Area under Crop		Area of Pastures Top-dressed	Area Under Irrigation
	Alienated and Set Apart	Under Lease				Fertilised	Total		
		Pastoral	Total						
	'000 acres	'000 acres	'000 acres	No.	'000 acres	'000 acres	'000 acres	'000 acres	'000 acres
1836-37	61								
1841-42	307						7		
1846-47	440						33		
1851-52	707	9,799					81		
1856-57	1,580	14,620					203		
1861-62	2,381	29,457					401		
1866-67	3,422	26,785					604		
1871-72	4,622	43,376					838		
1876-77	6,839	89,385					1,229		
1881-82	9,869	119,846					2,156		
1886-87	9,528	126,541					2,285		
1891-92	8,594	97,388					1,928		
1896-97	8,671	112,186					2,052		
1901-02	8,089	68,916	85,577			827	2,237		
1906-07	8,947	76,686	94,970			1,555	2,157		
1911-12	11,654	91,547	111,002	27,120	116,168	2,495	2,965		
1916-17	13,882	97,159	115,638	29,278	129,668	2,857	3,627		
1921-22	14,117	102,842	120,663	29,693	134,206	2,957	3,379		22.6
1922-23	14,210	99,594	117,686	29,942	131,689	3,088	3,575		26.3
1923-24	14,453	109,082	127,246	29,850	141,502	3,099	3,563		27.9
1924-25	14,457	108,797	126,694	29,776	139,438	3,100	3,557	67	35.3
1925-26	14,696	102,872	121,209	29,884	135,510	3,196	3,584	124	36.4
1926-27	14,993	101,962	120,830	29,654	135,580	3,534	3,884	162	35.4
1927-28	15,246	101,424	120,168	29,675	135,640	3,815	4,192	210	38.4
1928-29	15,698	100,425	119,349	29,953	134,782	4,251	4,660	250	39.2
1929-30	16,060	98,062	116,824	30,246	132,675	4,600	4,967	302	40.0
1930-31	16,272	94,176	113,117	30,449	129,569	4,921	5,426	315	43.5
1931-32	16,306	93,854	112,842	30,648	129,369	4,214	5,220	139	42.8
1932-33	16,253	97,412	116,281	30,724	132,673	4,408	5,167	151	42.6
1933-34	16,200	99,659	118,593	30,986	134,847	4,386	5,079	212	42.9
1934-35	16,086	102,084	121,506	31,123	137,918	3,950	4,629	361	39.6
1935-36	15,909	102,513	122,120	31,262	138,330	3,905	4,463	536	42.7
1936-37	15,757	101,091	120,871	31,321	136,978	4,001	4,578	904	42.3
1937-38	15,451	107,017	127,013	31,277	142,836	4,229	4,736	997	44.3
1938-39	15,297	109,304	129,140	31,280	144,682	4,281	4,724	1,075	43.6
1939-40	15,132	109,920	129,811	31,244	145,979	4,001	4,542	1,075	44.5
1940-41	14,766	109,551	129,663	30,961	144,207	3,777	4,254	1,049	46.3
1941-42	14,554	114,034	134,483	30,565	145,634	3,480	3,975	1,055	45.8
1942-43	14,157	110,879	131,560	27,934	145,443	2,625	3,437	945	n.a.
1943-44	14,023	110,808	131,899	27,826	144,526	1,926	2,761	705	n.a.
1944-45	13,936	113,157	134,398	27,867	137,486	2,289	3,179	725	n.a.
1945-46	13,914	113,617	135,010	27,635	142,505	3,036	3,824	854	42.2
1946-47	13,973	114,162	135,602	28,040	146,173	3,377	3,884	1,112	46.1
1947-48	14,067	114,201	135,503	27,597	142,393	3,377	3,851	1,391	42.6
1948-49	14,142	115,324	136,548	28,110	146,723	3,279	3,757	1,741	48.2
1949-50	14,473	115,630	137,132	27,900	146,563	3,122	3,617	1,792	49.1
1950-51	14,528	115,672	136,956	28,248	151,731	3,252	3,676	1,859	79.1
1951-52	14,447	115,795	137,811	28,698	151,785	3,173	3,696	2,150	58.4
1952-53	14,557	115,843	137,722	28,860	152,689	3,139	3,581	2,322	57.1
1953-54	14,670	118,059	140,008	29,220	150,315	3,336	3,778	2,826	62.1
1954-55	14,791	114,505	136,340	28,092	149,379	3,470	3,895	3,142	69.5
1955-56	14,353	117,085	139,640	28,585	149,965	3,405	3,972	3,499	71.0
1956-57	15,206	117,295	139,727	27,936	149,931	3,400	3,979	3,677	66.1
1957-58	15,342	115,715	138,370	27,971	152,045	3,463	3,907	4,005	81.2
1958-59	15,447	115,111	138,304	28,105	152,312	3,692	4,148	3,716	85.1
1959-60	15,533	121,772	145,377	28,527	155,437	3,679	4,059	3,471	109.9
1960-61	15,681	122,258	145,752	28,711	156,456	4,326	4,966	3,300	102.0
1961-62	15,751	122,122	145,796	28,886	156,897	4,063	4,509	3,583	108.4
1962-63	15,864	123,123	146,807	28,922	156,697	4,415	4,932	3,750	112.8
1963-64	15,961	122,718	146,382	28,711	158,905	4,788	5,380	3,993	117.9
1964-65	16,065	124,043	147,661	28,754	156,954	4,775	5,290	4,714	123.1
1965-66	16,111	126,830	150,422	28,759	159,394	4,869	5,293	5,093	128.8
1966-67	16,523	125,689	149,192	28,957	161,510	5,123	5,737	5,237	138.8
1967-68	16,543	127,269	149,530	29,058	160,765	5,033	5,609	5,130	173.2
1968-69	16,570	127,083	149,327	29,137	162,109	6,007	6,876	4,270	173.9
1969-70	16,601	127,132	149,951	29,035	162,692	5,284	5,948	4,962	186.0
1970-71	16,620	126,895	149,651	29,087	162,584	4,654	5,292	4,788	191.0
1971-72	16,635	126,081	148,676	29,095	160,980	5,221	6,122	4,502	188.0

RURAL PRODUCTION
Crop Areas and Yields

Year	Cereals for Grain						Hay (a)	Orchards (b) (c)	Vineyards (b)
	Wheat		Barley		Oats				
	Area	Yield per Acre	Area	Yield per Acre	Area	Yield per Acre	Area	Area	Area
	'000 acres	Bush	'000 acres	Bush	'000 acres	Bush		'000 acres	
1841-42.	4	20.77	1	20.00	1	25.00			
1846-47.	26	20.00	3	30.00	2	20.00			0.1
1851-52.	54	12.65	5	16.49	3	21.79			0.3
1856-57.	162	25.00	8	21.18	3	20.00	23	1.0	0.8
1861-62.	311	10.98	11	15.81	2	20.24	63	1.8	3.9
1866-67.	458	14.34	12	20.13	4	22.29	111	2.2	6.4
1871-72.	693	5.73	17	9.53	4	10.85	98	2.8	5.5
1876-77.	1,084	5.40	10	10.64	3	10.65	92	3.3	4.6
1881-82.	1,769	4.57	12	11.48	3	10.66	333	4.4	4.2
1886-87(d)	1,970	5.50	17	13.04	8	12.48	317	n.a.	5.3
1891-92.	1,552	4.15	11	9.35	13	6.40	304	8.9	12.3
1896-97.	1,693	1.66	14	7.44	40	4.72	339	11.7	18.3
1901-02.	1,743	4.60	16	15.68	35	13.54	370	16.3	20.9
1906-07.	1,686	10.36	28	17.47	57	15.72	298	18.2	22.6
1911-12.	2,191	9.29	41	17.25	108	12.51	521	23.2	24.0
1916-17.	2,778	16.46	104	16.74	152	12.13	483	28.8	29.2
1921-22.	2,384	10.46	171	19.19	125	10.37	559	32.3	41.4
1926-27.	2,768	12.84	257	18.05	152	11.26	496	31.6	50.3
1927-28.	2,941	8.18	219	13.67	197	7.00	533	31.0	50.7
1928-29.	3,446	7.79	247	18.53	207	8.40	498	30.8	51.8
1929-30.	3,646	6.40	305	15.25	278	5.63	544	30.1	52.3
1930-31.	4,181	8.34	252	15.72	218	9.52	613	29.6	52.2
1931-32.	4,071	11.81	242	18.87	206	11.08	539	29.1	52.5
1932-33.	4,067	10.43	314	19.31	174	10.27	461	29.1	52.5
1933-34.	3,822	9.26	307	17.09	265	7.88	507	28.9	52.9
1934-35.	3,188	8.61	317	17.94	367	6.57	561	29.2	53.4
1935-36.	2,989	10.58	394	16.49	300	7.94	566	29.1	54.2
1936-37.	3,058	9.39	305	13.99	415	5.70	539	29.8	56.1
1937-38.	3,162	13.73	411	21.02	332	8.91	562	29.9	57.4
1938-39.	3,080	10.28	457	16.50	267	9.00	519	28.9	58.0
1939-40.	2,735	15.02	504	19.78	349	11.64	532	29.1	58.2
1940-41.	2,560	6.97	471	10.14	473	3.87	404	29.4	58.4
1941-42.	2,326	13.12	478	24.49	291	13.04	558	29.5	58.0
1942-43.	2,009	18.18	298	20.20	263	12.81	426	29.5	58.2
1943-44.	1,534	13.49	261	19.34	224	10.22	312	25.5	57.3
1944-45.	1,623	5.70	360	8.85	334	3.94	428	26.5	56.9
1945-46.	2,165	9.72	442	17.12	370	8.60	484	27.2	57.4
1946-47.	2,519	11.08	502	16.78	252	11.01	329	28.1	58.2
1947-48.	2,375	13.70	562	27.32	309	17.47	296	28.3	58.9
1948-49.	2,063	12.67	698	17.35	287	9.23	234	29.7	59.8
1949-50.	1,896	14.95	694	18.34	261	13.25	295	26.9	60.3
1950-51.	1,848	16.74	765	21.87	271	13.02	261	28.7	62.0
1951-52.	1,613	16.92	832	20.23	387	13.95	257	29.4	61.2
1952-53.	1,544	21.97	938	27.63	369	18.05	214	28.6	60.6
1953-54.	1,528	19.90	1,122	25.40	280	15.42	262	29.8	62.1
1954-55.	1,689	18.63	1,020	18.02	340	13.27	257	30.5	60.6
1955-56.	1,609	17.96	1,042	23.61	425	17.13	326	33.0	59.9
1956-57.	1,438	21.85	1,222	27.83	427	19.47	299	34.0	57.4
1957-58.	1,331	11.20	1,212	14.48	427	8.01	291	35.3	57.4
1958-59.	1,407	22.76	1,332	28.27	481	24.93	420	37.2	56.7
1959-60.	1,549	7.70	1,290	9.19	505	4.95	245	37.4	56.9
1960-61.	1,969	23.56	1,556	27.15	512	22.41	393	37.7	56.9
1961-62.	2,229	15.19	1,271	16.75	324	13.57	209	38.5	57.8
1962-63.	2,595	14.77	1,053	17.10	416	13.88	287	40.4	58.3
1963-64.	2,802	19.26	1,123	21.67	501	18.27	358	41.7	58.7
1964-65.	2,727	19.37	1,095	24.60	444	20.23	314	43.0	58.9
1965-66.	2,745	14.56	1,098	16.86	455	12.37	299	44.0	58.7
1966-67.	2,960	18.18	1,107	21.41	509	20.19	482	44.2	57.1
1967-68.	2,864	9.39	1,157	10.70	525	6.29	429	45.1	58.1
1968-69.	3,748	22.19	1,412	20.92	516	23.07	615	44.5	60.6
1969-70.	3,210	18.43	1,384	22.01	372	17.94	384	44.8	64.8
1970-71.	1,983	14.64	1,714	19.10	482	17.46	485	45.3	68.3
1971-72.	2,682	19.57	2,011	23.84	687	21.90	606	42.5	71.1

(a) Wheat only to 1906-07, thence all kinds.

(b) Bearing and non-bearing.

(c) From 1949-50, private orchards and those no longer worked have been omitted.

(d) Statistics not collected and particulars estimated.

RURAL PRODUCTION
Livestock and Associated Produce; Farm Machinery

Year	Livestock Numbers				Wool Production '000 kg	Milk Production '000 gal	Slaughtering		Farm Machinery			
	Sheep	Cattle		Horses			Sheep and Lambs	Cattle and Calves	Tractors	Shearing Machines	Milking Machines	
		Total	Dairy Cows									
	'000	'000	'000	'000	'000 kg	'000 gal	'000	'000	No.	No.	No.	
1841-42 ..	250	21		1								
1846-47 ..	681	57		2								
1851-52 ..	1,250	100		7								
1856-57 ..	1,962	273		22								
1861-62 ..	3,038	265		53	5,791							
1866-67 ..	3,912	124		71	8,954							
1871-72 ..	4,412	143		78	11,752							
1876-77 ..	6,133	219		107	19,253							
1881-82 ..	6,804	294		157	22,118							
1886-87 ..	6,542	285		166	22,934							
1891-92 ..	7,646	399	80	189	26,133							
1896-97 ..	6,324	337	84	180	23,558							
1901-02 ..	5,012	225	75	165	20,209							
1906-07 ..	6,625	326	98	207	22,194							
1911-12 ..	6,172	394	122	260	27,372	28,000	1,276	87				
1916-17 ..	5,091	289	114	257	17,025	30,000	686	62				
1921-22 ..	6,257	419	166	268	26,202	41,400	1,208	95				
1922-23 ..	6,305	426	170	268	26,626	42,000	1,291	123				
1923-24 ..	6,597	413	169	264	26,255	47,600	956	140				
1924-25 ..	6,359	400	145	255	28,322	45,400	933	151	882			
1925-26 ..	6,810	373	136	244	31,302	41,400	1,028	155	1,252			
1926-27 ..	7,284	340	127	234	32,825	40,400	1,091	143	1,820			420
1927-28 ..	7,542	316	118	224	35,549	37,900	1,210	142	2,503			389
1928-29 ..	7,080	263	109	206	33,846	35,700	1,263	128	2,979			370
1929-30 ..	6,186	205	104	189	30,528	34,800	1,243	118	3,730			356
1930-31 ..	5,981	219	110	184	28,794	39,000	1,309	90	3,991			367
1931-32 ..	6,609	265	128	185	30,401	50,000	1,379	81	3,992			380
1932-33 ..	7,713	313	149	190	34,350	58,500	1,279	89	4,067			391
1933-34 ..	7,941	353	164	197	35,965	54,400	1,495	104	4,072			389
1934-35 ..	7,885	346	170	199	35,286	53,400	1,591	140	4,122			378
1935-36 ..	7,946	335	174	197	37,063	59,000	1,643	154	4,292			354
1936-37 ..	7,905	328	170	201	34,748	63,700	1,697	166	4,563			409
1937-38 ..	8,904	324	165	197	39,285	69,100	1,589	167	5,312			532
1938-39 ..	9,937	319	165	196	46,670	72,500	2,007	160	5,969			684
1939-40 ..	9,941	351	173	190	47,749	77,300	2,094	151	6,154			829
1940-41 ..	10,263	377	179	182	48,375	78,800	2,164	157	6,351			1,090
1941-42 ..	10,246	399	179	171	47,684	78,900	2,070	154	n.a.	n.a.	n.a.	
1942-43 ..	10,371	424	185	165	49,278	78,600	2,272	171	6,705	2,976		1,659
1943-44 ..	10,360	415	188	154	52,375	78,200	2,480	189	7,064	3,297		1,963
1944-45 ..	8,474	391	187	133	48,403	72,200	3,065	175	8,044	3,770		2,206
1945-46 ..	6,787	374	176	116	33,387	79,400	2,017	148	9,211	3,978		2,349
1946-47 ..	7,959	424	187	109	42,194	93,900	1,662	146	9,456	4,306		2,839
1947-48 ..	9,055	445	197	101	52,822	92,500	1,665	148	9,664	4,932		3,238
1948-49 ..	9,366	461	203	94	52,121	91,300	2,011	189	11,271	5,817		3,665
1949-50 ..	9,477	464	203	83	54,998	89,400	2,317	201	13,709	6,846		4,198
1950-51 ..	10,167	433	184	71	56,874	83,500	2,022	218	16,128	8,134		4,590
1951-52 ..	11,470	437	176	63	61,456	86,500	1,547	216	18,184	9,054		4,909
1952-53 ..	12,037	483	183	57	71,967	84,200	2,353	187	19,750	9,733		5,418
1953-54 ..	11,838	491	192	52	66,003	85,000	2,637	220	20,842	10,302		5,876
1954-55 ..	12,817	524	199	49	70,653	90,700	2,799	233	23,110	11,452		6,363
1955-56 ..	13,585	566	195	44	78,789	90,300	2,358	227	24,345	12,134		6,920
1956-57 ..	14,984	622	195	41	85,643	89,900	2,329	252	26,012	12,690		7,208
1957-58 ..	15,237	597	191	36	84,298	80,600	3,278	283	27,288	13,280		7,344
1958-59 ..	15,634	576	188	33	84,751	82,100	3,145	287	28,532	13,778		7,537
1959-60 ..	14,025	500	170	30	89,944	78,600	3,899	238	28,965	13,973		7,575
1960-61 ..	14,952	561	170	27	80,475	87,000	2,784	174	30,674	14,317		7,589
1961-62 ..	16,415	659	183	26	93,888	95,500	3,140	201	31,788	14,532		7,707
1962-63 ..	15,737	679	190	25	94,051	95,400	3,467	254	31,671	14,595		7,553
1963-64 ..	16,402	694	185	(a)	95,483	97,500	2,996	279	33,231	14,885		7,438
1964-65 ..	17,289	697	182	(a)	97,858	102,300	3,100	275	34,164	15,172		7,328
1965-66 ..	17,993	690	176	(a)	104,161	98,400	3,474	277	33,998	15,386		7,040
1966-67 ..	17,864	687	170	16	107,727	98,700	3,358	265	35,829	15,392		6,634
1967-68 ..	16,405	695	157	(a)	101,002	88,800	4,019	245	36,590	15,758		6,645
1968-69 ..	18,392	865	163	(a)	105,716	102,800	2,977	220	36,574	15,693		6,263
1969-70 ..	19,747	1,026	149	16	124,531	106,200	4,232	249	37,264	15,746		5,947
1970-71 ..	19,166	1,196	145	(a)	117,260	103,300	5,101	264	37,023	15,852		5,571
1971-72 ..	17,970	1,495	151	(a)	117,922	101,600	5,144	290	37,197	(a)	(a)	

(a) Not collected.

MINING AND FACTORY PRODUCTION

Year	Mining				Factories (a)		
	Principal Minerals Produced			Value of Production (b)	Number of Establishments	Value of Land and Buildings, Plant and Machinery	Value Added
	Copper Ore and Concentrate	Coal	Iron Ore				
Tons	'000 tons	'000 tons	\$'000		\$'000	\$'000	
1846.....	6,461			285			
1851.....	7,717			622			
1856.....	11,791			825			
1861.....	11,259			920			
1866.....	23,287			1,657			
1871.....	26,522			1,347			
1876.....	28,145			1,205			
1881.....	25,462			842			
1886.....	18,417			554			
1891.....	16,627		7	551			
1896.....	4,951		—	496			
1901.....	8,605		—	1,079			
1906.....	8,208		75	1,652			
1911.....	5,922		42	900	1,314	11,159	9,148
1916.....	7,279		188	2,504	1,266	12,782	9,748
1921.....	1,532		507	2,086	1,438	17,938	14,556
1926.....	231		584	2,924	1,791	31,685	25,348
1927.....	201		722	3,254	1,807	33,900	27,311
1928.....	192		618	2,755	1,860	36,415	26,975
1929.....	277		848	3,270	1,844	38,633	25,137
1930.....	99		928	2,882	1,814	38,447	21,953
1931.....	22		289	1,297	1,644	37,203	15,510
1932.....	—		538	1,885	1,662	35,314	13,924
1933.....	72		721	2,456	1,710	34,733	15,709
1934.....	207		1,244	3,724	1,733	34,302	17,283
1935.....	256		1,869	5,113	1,803	34,483	19,114
1936.....	451		1,887	5,241	1,895	35,098	23,339
1937.....	340		1,866	5,244	1,916	34,528	24,543
1938.....	254		2,245	6,304	1,980	35,564	27,640
1939.....	110		2,572	7,294	2,067	36,921	27,358
1940.....	308		2,313	7,077	2,265	41,291	28,807
1941.....	605		2,240	7,074	2,230	51,744	33,832
1942.....	392	2	2,122	6,342	2,167	66,948	49,132
1943.....	102	—	2,183	6,287	2,134	70,643	56,732
1944.....	135	35	2,029	6,085	2,149	72,089	56,823
1945.....	134	41	1,520	4,917	2,182	69,665	54,530
1946.....	—	135	1,818	6,101	2,395	74,930	51,203
1947.....	—	193	2,146	7,253	2,707	74,136	62,133
1948.....	4	240	2,035	7,514	2,865	81,861	77,339
1949.....	3	345	1,448	6,236	2,927	90,019	87,443
1950.....	—	261	2,350	8,857	3,046	98,436	104,706
1951.....	2	388	2,401	9,875	3,141	100,123	135,618
1952.....	5	418	2,684	12,094	3,245	121,367	166,493
1953.....	2	448	2,591	12,406	3,339	144,029	178,378
1954.....	3	495	2,867	17,160	3,577	166,735	200,443
1955.....	—	455	3,044	(c) 41,419	3,750	188,555	222,055
1956.....	12	481	3,587	47,853	3,908	223,900	241,872
1957.....	39	609	3,389	46,352	4,063	254,380	253,532
1958.....	52	755	3,353	47,076	4,168	280,840	266,570
1959.....	66	690	3,423	49,332	4,235	302,055	279,620
1960.....	30	885	3,437	50,870	4,684	351,745	325,947
1961.....	8	1,115	3,991	58,242	5,042	401,658	340,123
1962.....	4	1,392	3,510	53,958	5,519	449,600	347,828
1963.....	16	1,512	4,242	62,431	5,766	506,571	379,142
1964.....	54	1,736	4,367	67,597	5,826	560,908	427,356
1965.....	114	2,016	4,392	67,863	5,887	645,469	498,588
1966.....	141	2,021	4,799	72,342	6,065	699,989	527,477
1967.....	1,447	2,045	4,572	69,345	6,222	767,310	563,764
1968.....	510	2,078	5,478	77,398	6,255	813,610	631,104
1969.....	3,608	2,210	6,931	98,526	(d) 3,085	n.a.	(d) 643,079
1970.....	4,166	1,827	7,584	110,631	3,103	n.a.	713,822
1971.....	6,354	1,468	6,758	110,540	(e)	(e)	(e)

(a) Year ended 30 June.

(b) Value at site of production. Quarries included from 1916.

(c) Comparability affected by revaluation of iron ore.

(d) For a description of the changes in definitions see page 449.

(e) Not collected.

STATISTICAL SUMMARY

GROSS VALUE OF RURAL PRODUCTION

Year	Agricultural				Pastoral		Dairying	Total Rural Production
	Wheat	Barley	Vine and Orchard Fruit	Total	Wool (a)	Total		
	\$'000							
1909-10	9,635	239	1,330	14,761	4,394	6,231	1,492	23,365
1910-11	8,419	174	1,572	14,186	4,514	7,087	1,715	24,004
1911-12	7,717	254	1,599	14,965	3,836	5,789	1,693	23,535
1912-13	7,703	466	1,871	15,817	4,232	6,260	1,643	24,841
1913-14	6,210	324	1,632	12,400	3,990	5,865	1,705	21,136
1914-15	2,557	247	1,155	8,203	2,878	3,462	1,601	14,342
1915-16	16,214	521	2,244	24,813	3,260	2,441	1,809	30,117
1916-17	21,729	599	1,653	27,677	4,274	11,200	2,759	42,909
1917-18	13,629	683	2,416	20,583	5,948	12,269	2,874	37,117
1918-19	12,615	1,262	2,859	22,692	7,258	11,774	3,093	39,009
1919-20	13,482	1,451	3,530	27,456	7,332	10,449	3,413	43,193
1920-21	27,407	1,681	3,811	39,963	5,874	11,248	4,666	58,287
1921-22	12,577	1,227	3,491	23,221	5,752	8,296	3,678	37,274
1922-23	14,152	1,364	3,768	26,292	8,688	11,792	3,959	44,226
1923-24	16,124	1,065	3,962	28,312	10,612	15,479	4,970	50,961
1924-25	18,572	1,648	4,399	30,636	11,952	16,276	4,305	53,609
1925-26	17,979	1,656	3,352	28,307	8,591	12,930	4,171	47,629
1926-27	19,052	1,685	4,082	30,181	8,937	12,140	3,895	48,357
1927-28	13,247	1,497	3,394	23,257	11,338	14,584	4,125	44,464
1928-29	12,845	1,737	3,909	23,880	9,308	12,472	3,810	42,375
1929-30	10,243	1,448	3,819	21,059	5,098	8,183	3,892	35,055
1930-31	8,091	893	3,241	15,708	3,608	5,801	3,121	26,335
1931-32	17,163	1,363	3,442	25,291	3,843	5,452	3,140	35,444
1932-33	13,097	1,371	3,463	20,921	4,619	5,834	3,654	32,030
1933-34	10,933	1,280	3,618	19,533	9,013	10,608	3,108	34,776
1934-35	10,318	1,553	3,882	19,965	5,309	7,706	3,091	32,489
1935-36	13,135	1,457	3,953	22,863	8,116	10,885	3,797	39,126
1936-37	14,955	1,766	4,191	26,044	8,720	12,315	4,310	44,366
1937-38	15,665	1,040	4,964	29,453	8,141	11,443	5,291	48,241
1938-39	8,580	2,046	4,056	20,008	7,802	12,327	5,171	39,613
1939-40	16,692	3,524	4,637	30,132	10,470	14,792	5,585	52,487
1940-41	8,379	2,321	4,873	20,167	10,532	14,757	6,079	43,134
1941-42	13,913	4,490	4,725	30,142	10,294	13,875	6,735	53,016
1942-43	19,399	2,799	6,481	35,423	12,359	16,917	7,917	63,091
1943-44	12,765	2,188	9,159	32,088	13,067	18,277	8,807	63,003
1944-45	6,065	1,931	6,283	23,548	11,963	17,928	8,880	54,810
1945-46	17,490	4,956	7,729	40,434	8,275	14,535	9,959	69,399
1946-47	27,685	7,598	8,283	51,209	17,092	22,602	10,950	90,106
1947-48	50,154	26,228	9,677	99,477	32,606	37,487	12,525	155,615
1948-49	32,450	10,242	10,087	64,138	40,268	47,636	13,440	131,527
1949-50	40,834	14,524	10,616	81,707	56,268	63,058	16,148	167,594
1950-51	45,587	19,803	13,720	97,871	132,494	139,895	15,500	259,627
1951-52	45,288	27,706	20,382	120,507	72,394	86,034	21,145	234,587
1952-53	57,302	42,128	19,161	139,160	97,158	109,154	23,527	279,982
1953-54	43,939	28,804	20,788	115,744	88,868	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	273,541
1962-63	56,285	19,152	25,857	128,417	92,514	127,386	31,968	295,043
1963-64	77,660	26,399	29,567	165,634	113,409	150,466	34,267	358,802
1964-65	74,550	30,135	36,200	178,132	94,328	135,916	37,533	360,507
1965-66	59,559	20,234	31,411	144,017	103,635	152,224	39,293	345,015
1966-67	79,612	26,912	36,779	184,090	104,588	169,226	40,303	404,864
1967-68	42,183	12,818	32,423	127,288	79,925	129,504	37,163	306,222
1968-69	112,551	25,657	37,815	221,097	95,054	136,070	39,016	408,842
1969-70	84,814	23,724	43,340	186,766	91,224	148,939	40,834	388,523
1970-71	41,988	34,902	45,991	166,322	65,525	123,858	43,918	348,465
1971-72	78,739	40,278	49,347	215,010	79,404	153,069	47,344	432,591

(a) Shares of profits from sale of wool under war-time disposal schemes excluded.

NET VALUE OF PRODUCTION

Year	Rural				Other Primary (a)	Mining and Quarrying (a)
	Agricultural	Pastoral	Dairying	Total		
	\$'000					
1925-26	19,374	11,497	2,988	34,648	1,537	2,684
1926-27	19,755	10,697	2,955	34,098	1,618	2,924
1927-28	13,661	12,861	3,146	30,858	1,784	3,254
1928-29	12,840	10,912	2,721	27,514	1,639	2,755
1929-30	10,521	6,795	2,988	21,189	1,685	3,270
1930-31	4,368	4,684	2,285	12,051	1,304	2,882
1931-32	16,681	4,450	2,435	24,259	1,357	1,297
1932-33	12,565	4,775	2,839	20,758	1,458	1,885
1933-34	11,820	9,122	2,278	23,768	1,445	2,456
1934-35	12,751	6,363	2,242	22,121	1,460	3,724
1935-36	14,673	9,205	2,786	27,242	1,489	4,739
1936-37	18,115	10,435	3,176	32,270	1,683	4,874
1937-38	18,320	9,713	3,782	32,510	1,758	4,941
1938-39	10,978	10,110	3,886	25,903	1,722	5,909
1939-40	19,482	12,413	4,388	37,412	1,931	6,887
1940-41	12,290	12,427	4,204	29,862	2,062	6,659
1941-42	19,314	11,559	4,276	36,181	2,495	6,595
1942-43	24,495	14,265	6,207	46,688	2,793	5,899
1943-44	22,086	15,577	6,991	47,063	2,961	5,949
1944-45	13,995	15,391	6,912	39,113	2,886	5,870
1945-46	29,935	12,396	7,652	52,640	3,417	4,756
1946-47	39,525	19,170	8,484	70,571	4,124	5,937
1947-48	83,901	33,861	9,970	131,832	4,858	7,037
1948-49	47,901	42,913	10,511	105,545	5,850	7,194
1949-50	65,579	57,116	13,637	140,976	5,814	5,882
1950-51	72,805	131,594	12,629	221,425	6,944	8,375
1951-52	93,807	77,929	17,714	193,792	8,862	9,292
1952-53	102,488	99,837	18,854	225,741	10,363	10,305
1953-54	83,399	94,847	20,514	203,296	11,598	10,075
1954-55	78,361	90,440	21,330	193,795	11,702	14,202
1955-56	82,542	89,249	26,547	202,430	12,151	(b) 37,302
1956-57	99,376	124,187	25,022	252,554	11,966	43,008
1957-58	64,635	89,726	15,651	173,506	10,287	41,249
1958-59	101,141	76,849	18,725	200,694	11,254	42,458
1959-60	48,492	100,135	18,281	170,450	10,694	44,311
1960-61	116,647	72,237	16,926	208,842	11,012	45,773
1961-62	90,933	91,256	19,826	204,484	10,911	52,623
1962-63	93,357	103,991	19,741	218,828	11,574	49,603
1963-64	125,180	125,979	21,195	274,720	12,279	57,836
1964-65	134,239	110,054	25,005	271,350	14,173	62,727
1965-66	105,657	123,757	25,127	256,934	15,817	62,727
1966-67	137,042	134,608	25,238	300,112	14,941	66,909
1967-68	90,903	98,722	22,169	214,300	15,482	63,492
1968-69	161,605	106,329	23,253	293,682	16,120	71,618
1969-70	133,474	117,337	28,188	283,699	18,614	n.a.
1970-71	121,127	94,717	31,097	252,874	19,888	n.a.
1971-72	158,754	122,426	31,496	319,843	22,103	n.a.

(a) To 1934-35, local value, i.e. gross value less marketing costs.

b) Comparability affected by revaluation of iron ore.

STATISTICAL SUMMARY

TRADE
Overseas Exports

Year	Value of Exports					Proportion of Total Exports Classified by Principal Countries of Destination				
	Total	Wheat and Flour	Barley	Wool	Minerals (a)	Japan	New Zealand	U.K.	U.S.A.	Other Countries
	\$'000					Per cent				
1861	1,837	76		1,302	362		3.42	89.46		7.12
1866	2,337	146		1,518	1,030		4.62	81.48		11.46
1871	3,630	578		1,948	744		4.00	89.62	n.a.	6.38
1876	5,928	2,146		2,884	658		1.96	89.58	0.07	8.39
1881	6,311	1,846		3,496	488		0.71	82.03	—	17.26
1886	5,877	420		3,508	1,126		0.69	86.90	0.04	12.37
1891	11,197	2,728		3,776	3,714	0.01	0.29	80.82	0.90	17.98
1896	8,111	222		3,038	3,878	1.38	0.48	56.39	0.28	41.47
1901	8,866	2,232		2,208	3,252	0.07	0.65	51.62	0.10	47.56
1906	13,742	4,780		3,360	3,574	—	0.26	51.68	0.24	47.82
1911	20,350	7,671	2	4,007	6,195	0.04	0.17	45.96	0.13	53.70
1915-16	12,272	3,511	19	2,824	4,747	—	1.01	42.92	21.15	34.92
1920-21	35,339	28,675	1,175	6,035	828	—	1.11	59.40	1.16	8.33
1925-26	38,900	14,825	275	8,865	10,745	6.88	1.70	51.94	1.16	38.32
1926-27	34,246	14,189	703	8,297	6,971	2.25	1.47	44.30	0.93	51.05
1927-28	36,060	10,831	464	9,788	8,991	2.23	0.58	45.87	1.80	49.52
1928-29	29,623	7,822	422	8,463	8,027	0.43	0.58	44.64	1.12	53.23
1929-30	30,019	7,734	155	4,487	9,211	3.30	0.63	58.25	1.59	36.23
1930-31	20,123	6,078	685	3,006	5,656	2.38	0.81	54.11	0.79	41.91
1931-32	24,495	11,803	826	3,243	3,283	3.34	0.75	58.69	0.63	36.59
1932-33	25,634	10,430	640	4,579	3,787	7.91	0.65	61.78	0.14	29.52
1933-34	25,435	5,463	588	7,526	5,562	4.90	1.24	66.85	0.39	26.61
1934-35	23,670	8,279	691	4,881	4,321	7.26	1.58	61.66	0.77	28.73
1935-36	30,762	9,020	707	7,561	6,860	6.66	2.05	67.44	1.11	22.74
1936-37	33,496	9,890	864	8,144	7,320	2.73	1.52	68.26	2.23	25.26
1937-38	38,114	13,848	1,493	6,576	7,909	1.01	1.31	71.37	0.99	25.32
1938-39	29,682	6,061	559	7,069	7,107	1.59	2.42	67.76	1.06	27.17
1939-40	31,916	4,971	727	10,726	6,317	1.91	1.93	75.40	0.88	19.88
1940-41	26,393	8,617	226	6,656	2,606	5.29	3.46	50.46	15.48	25.31
1941-42	29,624	3,863	338	11,596	6,220	1.01	3.39	32.02	34.14	29.44
1942-43	18,847	4,085	122	6,843	2,084	—	10.61	45.27	15.12	29.00
1943-44	31,170	10,504	410	8,509	2,313	—	9.18	40.36	8.61	41.85
1944-45	38,334	13,175	115	8,376	5,589	—	6.30	42.34	13.18	38.18
1945-46	40,307	7,407	718	14,917	6,550	—	4.95	25.45	26.43	43.17
1946-47	65,023	12,304	2,998	16,095	16,138	0.01	5.37	39.47	8.86	46.29
1947-48	105,805	24,507	16,030	25,608	17,460	—	4.44	39.01	8.51	48.04
1948-49	138,866	38,990	11,952	40,619	24,230	0.07	2.31	44.37	8.04	45.21
1949-50	127,864	23,227	10,564	49,621	23,262	2.95	6.38	42.42	7.63	40.62
1950-51	215,348	36,852	14,662	109,900	29,893	5.90	2.39	39.58	14.41	37.72
1951-52	194,501	42,155	18,035	65,806	42,995	4.60	7.26	39.36	14.65	34.13
1952-53	245,897	36,062	30,975	87,135	56,007	8.17	3.32	45.12	12.93	30.46
1953-54	220,498	30,518	24,465	78,817	54,059	6.35	5.80	41.66	10.57	35.62
1954-55	190,158	24,075	15,794	69,195	50,620	5.05	6.59	40.78	11.57	36.01
1955-56	195,332	26,266	14,069	70,063	53,972	6.71	7.47	38.70	10.71	36.41
1956-57	245,848	32,558	18,535	98,924	63,707	13.62	7.40	31.73	13.09	34.16
1957-58	199,764	24,868	17,183	73,082	50,249	11.23	7.85	31.50	9.32	40.10
1958-59	181,831	23,656	20,404	63,208	38,682	13.25	7.86	34.81	8.50	35.58
1959-60	181,652	19,028	12,251	74,830	38,085	12.91	4.30	32.08	7.91	42.80
1960-61	198,557	36,598	19,219	64,328	44,203	18.11	5.60	27.55	4.71	44.03
1961-62	243,975	47,819	23,422	83,107	51,374	14.80	4.14	25.83	8.56	46.67
1962-63	212,945	32,603	6,968	83,400	47,555	16.45	4.57	25.87	8.69	44.42
1963-64	322,159	76,337	13,828	107,398	63,489	17.59	4.83	26.63	5.99	44.96
1964-65	302,242	53,256	15,247	92,535	79,005	17.22	5.06	25.82	7.49	44.41
1965-66	296,276	45,864	7,050	94,486	76,896	18.38	5.89	22.81	10.37	42.55
1966-67	325,170	55,675	13,056	98,013	76,855	20.43	4.69	15.46	8.85	50.57
1967-68	282,767	31,432	2,321	77,008	88,579	21.81	5.05	18.20	11.03	43.91
1968-69	300,934	27,421	11,683	84,747	92,806	25.52	4.55	16.46	9.78	43.69
1969-70	417,030	59,457	16,133	81,797	119,292	19.02	5.58	17.03	9.41	48.96
1970-71	393,737	83,629	23,670	62,828	93,209	18.07	5.66	13.70	6.39	56.18
1971-72	394,064	64,599	35,652	68,189	84,508	18.64	7.21	13.83	5.84	54.47

(a) Rocks, minerals and hydrocarbons, pig iron, pig lead, other lead and lead-base alloys, refined and unrefined silver.

TRADE

Overseas Imports; Retail Sales

Year	Value of Imports		Proportion of Total Imports Classified by Principal Countries of Origin				Value of Retail Sales of Goods	
	Total	Metals, Metal Manufactures, and Machinery	Canada	U.K.	U.S.A.	Other Countries	Total Excluding Motor Vehicles etc.	Motor Vehicles etc.
	\$'000		Per cent				\$ million	
1861.....	2,756	310		80.14	0.32	19.54		
1866.....	4,193	570		89.69	1.80	8.51		
1871.....	2,891	342		81.85	1.45	16.70		
1876.....	6,428	1,084	0.15	81.30	1.44	17.11		
1881.....	7,133	1,022	0.04	79.06	3.80	17.10		
1886.....	5,003	770	0.05	78.90	6.82	14.23		
1891.....	8,063	1,644	0.81	71.36	7.91	19.92		
1896.....	6,475	1,198	0.21	68.59	7.82	23.38		
1901.....	7,854	1,432	0.71	56.91	14.17	28.21		
1906.....	7,965	2,104	1.38	63.10	10.17	25.35		
1911.....	12,492	4,132	1.41	58.60	12.81	27.18		
1915-16.....	10,304	2,816	2.27	47.68	19.81	30.24		
1920-21.....	24,764	6,558	2.96	42.07	21.25	33.72		
1925-26.....	28,160	10,602	2.18	43.30	27.84	26.68		
1926-27.....	31,015	12,774	2.29	42.72	29.98	25.01		
1927-28.....	25,019	9,388	1.67	44.51	27.62	26.20		
1928-29.....	22,612	7,908	3.03	42.31	25.88	28.78		
1929-30.....	18,721	5,914	2.33	42.01	26.12	29.54		
1930-31.....	7,833	1,802	2.77	36.96	16.66	43.61		
1931-32.....	5,643	896	4.52	37.88	14.00	43.60		
1932-33.....	7,521	1,140	5.15	35.49	14.34	45.02		
1933-34.....	7,359	1,692	5.07	41.48	14.84	38.61		
1934-35.....	7,931	2,296	5.81	42.91	15.75	35.53		
1935-36.....	10,839	3,616	5.48	38.65	21.16	34.71		
1936-37.....	10,877	3,678	6.55	42.50	15.79	35.16		
1937-38.....	14,948	5,906	7.34	36.49	23.19	32.98		
1938-39.....	11,702	3,924	7.34	37.74	17.13	37.79		
1939-40.....	13,435	3,256	7.49	34.89	14.43	43.19		
1940-41.....	10,924	3,158	5.71	38.09	12.01	44.19		
1941-42.....	14,924	5,164	2.29	28.11	12.36	57.24		
1942-43.....	11,718	3,580	1.45	20.56	14.44	63.55		
1943-44.....	9,562	2,128	1.22	24.97	33.53	40.28		
1944-45.....	9,313	1,388	3.08	24.49	19.91	52.52		
1945-46.....	17,556	3,622	3.19	62.28	10.13	24.40		
1946-47.....	23,875	6,788	7.19	35.25	13.79	43.77		
1947-48.....	45,908	12,740	3.89	37.96	15.45	42.70		
1948-49.....	60,914	21,678	2.36	49.33	9.02	39.29		
1949-50.....	91,509	44,334	1.92	52.15	8.81	37.12		
1950-51.....	112,002	50,446	1.76	48.31	8.42	41.51		
1951-52.....	186,062	80,450	1.72	39.99	9.37	48.92		
1952-53.....	86,549	41,456	4.15	43.53	11.71	40.61	271.7	84.3
1953-54.....	102,945	47,142	7.04	50.63	8.93	33.40	294.4	97.6
1954-55.....	129,607	63,144	4.17	49.18	13.28	33.37	324.4	113.4
1955-56.....	125,504	64,656	3.78	49.17	11.70	35.35	347.8	123.6
1956-57.....	90,813	40,536	5.24	44.01	12.26	38.49	362.3	124.7
1957-58.....	94,205	40,792	4.88	46.37	11.91	36.84	367.2	125.4
1958-59.....	90,693	40,534	6.78	42.08	11.50	39.64	387.2	138.0
1959-60.....	119,493	57,962	5.76	43.89	12.15	38.20	436.6	160.2
1960-61.....	142,764	72,570	6.57	32.66	17.61	43.16	448.9	156.1
1961-62.....	103,386	46,774	6.01	31.95	21.87	40.17	451.6	143.1
1962-63.....	139,826	71,820	6.79	31.83	22.92	38.46	479.9	180.5
1963-64.....	179,651	94,302	5.43	24.75	30.63	39.19	525.3	212.5
1964-65.....	204,856	108,243	5.46	23.72	29.11	41.71	574.5	238.0
1965-66.....	198,156	103,032	5.80	23.32	27.25	43.63	602.0	220.4
1966-67.....	196,771	97,861	4.96	21.64	27.72	45.68	627.1	214.7
1967-68.....	215,619	113,215	8.30	17.29	32.71	41.70	663.6	242.0
1968-69.....	231,956	134,222	9.35	19.82	27.35	43.48	706.9	261.1
1969-70.....	201,223	98,204	7.36	21.49	21.50	49.64	762.3	285.7
1970-71.....	198,358	98,358	5.92	25.10	17.32	51.66	818.8	297.6
1971-72.....	189,748	83,083	5.41	22.83	14.48	57.28	890.9	322.5

TRANSPORT AND COMMUNICATION

Public Transport

Year	Railways			Buses and Trams (a)		Civil Aviation		Shipping (Entering S.A.) (b)
	Passengers Carried	Goods Carried	Revenue	Passengers Carried	Revenue	Passengers Carried	Freight Carried	
	'000	'000 tons	\$'000	'000	\$'000	'000	short tons	
1841.....								18
1846.....								25
1851.....								75
1856.....	248	32	44					114
1861.....	310	145	185					103
1866.....	425	171	236					169
1871.....	394	228	235					187
1876.....	1,400	387	402					347
1880-81.....	2,902	683	837					641
1885-86.....	3,962	779	1,098					771
1890-91.....	5,296	1,427	2,448					1,288
1895-96.....	5,436	1,057	1,973					1,661
1900-01.....	8,864	1,628	2,473					1,967
1905-06.....	10,715	1,732	2,700					2,785
1910-11.....	16,620	2,731	4,030	34,013	480			3,625
1915-16.....	20,513	2,397	3,931	43,372	649			2,566
1920-21.....	23,788	2,682	5,884	55,324	1,111			2,887
1925-26.....	25,752	3,563	8,524	66,207	1,322			4,526
1930-31.....	15,453	2,175	5,201	52,756	1,444			4,166
1931-32.....	15,608	2,430	5,514	48,467	1,319			4,139
1932-33.....	16,074	2,401	5,489	48,154	1,287			4,375
1933-34.....	16,325	2,155	5,142	47,021	1,256			4,387
1934-35.....	16,660	2,347	5,339	48,118	1,279			4,974
1935-36.....	17,431	2,482	5,781	50,625	1,347			5,318
1936-37.....	17,777	2,400	6,043	52,082	1,399			5,292
1937-38.....	17,632	2,897	6,598	51,674	1,385			5,711
1938-39.....	17,529	2,661	6,267	52,906	1,422	9	108	5,761
1939-40.....	17,642	2,700	6,367	52,928	1,429	n.a.	n.a.	4,629
1940-41.....	20,360	2,770	7,060	56,518	1,537	n.a.	n.a.	3,047
1941-42.....	28,513	3,128	9,928	69,132	1,891	n.a.	n.a.	2,447
1942-43.....	30,864	3,460	11,665	85,133	2,309	n.a.	n.a.	1,589
1943-44.....	27,356	3,673	12,004	91,312	2,445	n.a.	n.a.	1,814
1944-45.....	24,820	3,502	10,969	95,035	2,563	n.a.	n.a.	1,868
1945-46.....	23,119	2,997	9,794	90,239	2,469	n.a.	n.a.	1,733
1946-47.....	19,827	3,093	9,243	91,238	2,594	160	2,048	3,086
1947-48.....	19,067	3,396	10,219	89,661	2,661	230	3,966	3,651
1948-49.....	18,210	3,544	11,770	82,939	3,084	263	5,573	4,365
1949-50.....	17,385	3,425	(c)13,098	77,999	2,535	266	6,941	5,217
1950-51.....	17,178	3,519	14,715	78,141	3,238	298	8,363	5,283
1951-52.....	18,269	4,966	19,022	75,436	3,684	323	7,745	5,529
1952-53.....	17,565	4,172	24,976	66,571	(d)4,232	295	9,028	5,900
1953-54.....	17,605	4,457	25,848	66,972	4,145	272	11,457	6,108
1954-55.....	16,849	4,497	26,522	66,446	4,267	310	12,514	6,123
1955-56.....	16,434	4,436	26,662	63,515	4,668	329	12,539	6,282
1956-57.....	17,406	4,518	28,132	62,190	4,578	334	12,003	6,360
1957-58.....	17,564	4,166	27,033	60,083	4,988	337	10,143	6,569
1958-59.....	16,805	4,227	26,179	59,613	5,056	402	9,802	6,744
1959-60.....	17,038	4,059	25,652	58,168	5,641	463	9,990	6,745
1960-61.....	15,574	4,537	27,883	58,912	5,515	449	9,254	7,613
1961-62.....	15,176	4,638	27,984	57,950	5,430	446	8,591	7,646
1962-63.....	14,922	4,530	27,826	58,039	5,436	493	9,035	7,886
1963-64.....	15,227	5,213	29,673	58,571	5,473	548	9,621	9,486
1964-65.....	15,196	5,131	29,960	56,434	5,899	671	9,987	9,697
1965-66.....	15,511	4,823	29,137	53,112	6,049	769	11,962	9,517
1966-67.....	15,432	4,909	30,417	49,735	6,270	827	10,641	10,219
1967-68.....	15,242	4,401	28,244	47,813	6,225	n.a.	n.a.	10,028
1968-69.....	14,423	5,037	30,522	45,393	6,472	n.a.	n.a.	10,345
1969-70.....	13,990	5,922	33,566	43,345	6,696	n.a.	n.a.	12,213
1970-71.....	13,946	6,025	34,635	41,259	6,881	n.a.	n.a.	11,303
1971-72.....	13,433	5,948	35,603	40,842	6,978	n.a.	n.a.	10,553

(a) Buses and trams operated by Municipal Tramways Trust only. Years ended 31 July from 1912 to 1939. 31 January from 1940 to 1952, and 30 June from 1953.

(b) Years ended 31 December to 1913; thereafter year ended 30 June.

Excludes Treasury grant from 1949-50.

(d) Excludes Government grant from 1952-53.

TRANSPORT AND COMMUNICATION

Year	Motor Vehicles on Register			Drivers and Riders Licences in Force	Tele- phone Services in Opera- tion	Radio Licences in Force	Post Office Revenue			
	Cars and Station Wagons	Utilities, Vans, Trucks, Buses	Total (incl. Cycles, Scooters)		(a)		(b)	Postal, Etc.	Tele- graph	Tele- phone
	'000			Number			\$'000			
1851.....								14		
1856.....								18		
1861.....								33	15	
1866.....								56	24	
1871.....								58	22	
1876.....								114	64	
1881.....								166	123	
1886.....								214	160	
1891.....								227	201	
1896.....								250	242	
1901.....					1,831			282	263	
1906.....					2,510			342	182	61
1911.....					6,086			490	233	93
1916.....					10,184			484	277	212
1921.....	13.2		21.4		15,984			762	420	468
1926.....	42.5	8.2	62.5	79,659	33,547	12,105		867	402	903
1927.....	50.6	11.0	74.1	88,695	37,132	15,904		929	446	1,026
1928.....	54.9	12.4	79.6	92,198	40,407	20,247		809	351	1,249
1929.....	58.2	13.6	85.5	82,973	42,186	23,927		876	360	1,249
1930.....	(d) 50.4	(d) 12.3	(d) 72.6	94,381	42,868	25,651		871	340	1,266
1931.....	45.1	12.1	67.3	106,053	39,552	32,075		879	282	1,168
1932.....	46.6	12.6	68.9	81,300	37,815	43,268		871	273	1,060
1933.....	46.4	14.2	71.1	89,507	37,339	55,639		913	318	1,064
1934.....	48.9	17.3	76.7	96,916	37,713	72,337		935	323	1,076
1935.....	49.5	17.2	77.4	93,258	38,652	81,629		954	337	1,119
1936.....	53.7	19.4	84.3	92,227	39,911	93,881		1,017	327	1,197
1937.....	56.1	21.7	88.6	135,320	41,467	105,045		1,048	355	1,280
1938.....	60.5	25.0	95.7	137,627	43,307	115,571		1,099	375	1,370
1939.....	59.3	25.7	94.6	138,089	45,224	120,584		1,113	399	1,419
1940.....	58.2	24.5	91.9	129,950	46,767	127,995		1,140	423	1,515
1941.....	54.5	24.4	86.2	122,280	47,962	136,457		1,252	458	1,522
1942.....	53.6	22.6	82.0	106,455	48,747	144,209		1,588	553	1,732
1943.....	56.6	23.7	86.7	113,556	49,152	153,356		1,858	819	1,957
1944.....	59.3	24.9	91.3	105,951	50,161	155,046		2,049	816	2,024
1945.....	61.4	27.0	97.1	117,310	51,266	157,604		2,093	831	2,099
1946.....	64.4	31.4	107.2	137,979	53,126	164,497		1,921	815	2,170
1947.....	67.4	34.7	115.2	149,304	56,449	180,371		1,989	875	2,345
1948.....	75.7	36.4	127.5	159,814	60,249	196,336		2,190	946	2,507
1949.....	84.3	40.7	145.5	172,063	64,008	211,436		2,345	848	2,761
1950.....	97.5	46.0	163.9	192,469	69,907	226,723		2,546	1,169	3,536
1951.....	108.9	51.2	183.6	215,157	74,457	243,019		2,938	1,550	4,271
1952.....	120.5	55.9	200.4	232,119	80,919 (e)	207,527		3,872	1,818	5,588
1953.....	129.7	61.2	214.3	252,216	86,977	210,808		4,086	1,191	6,070
1954.....	139.7	64.6	226.9	265,727	93,104	218,745		4,311	1,112	6,728
1955.....	150.5	70.2	244.4	281,091	100,171	221,118		4,670	1,028	7,266
1956.....	161.4	73.2	257.5	299,158	107,649	228,625		5,033	1,075	8,067
1957.....	171.9	75.7	269.3	315,044	114,390	234,120		5,579	1,358	8,993
1958.....	184.3	77.8	283.0	328,833	122,311	238,916		5,877	1,385	9,950
1959.....	200.3	81.0	301.5	340,973	131,060	247,468		6,247	1,421	10,524
1960.....	214.9	84.1	318.3	369,584	138,019	249,148		7,359	1,487	12,793
1961.....	224.5	82.5	325.2	393,869	144,502	249,475		7,729	1,643	14,544
1962.....	238.9	82.5	338.1	397,803	152,785	249,673		7,761	1,434	15,604
1963.....	258.1	83.7	357.2	414,656	162,012	256,741		8,322	1,592	16,308
1964.....	278.6	86.0	378.6	427,717	173,314	266,027		8,709	1,852	19,181
1965.....	295.9	85.9	394.6	447,985	182,249 (f)	269,040		9,312	2,187	23,038
1966.....	311.0	86.7	409.7	464,778	192,922	281,747		9,759	2,398	24,757
1967.....	324.0	86.3	422.8	481,496	203,191	278,069		10,117	2,521	26,990
1968.....	338.5	86.6	438.1	491,765	212,842	290,051		11,378	2,688	30,124
1969.....	359.5	88.5	461.4	513,687	224,174	297,877 (g)	13,211	(g) 1,606	(g) 34,523	
1970.....	378.1	89.4	482.3	535,184	239,452	302,519	13,885	1,918	38,465	
1971.....	400.8	91.4	510.3	550,745	251,330	310,485	15,847	1,988	43,333	
1972.....	420.4	92.9	536.0	570,562	261,608	315,612	18,309	2,342	50,820	

(a) At 30 June from 1916; at 31 December in earlier years. (b) At 31 December from 1931 to 1943; otherwise at 30 June in years shown. (c) Years ended 30 June from 1886; earlier years ended 31 December. Telegraph includes telephone to 1901 and radio to 1948, from which time radio etc., licence fees have been excluded from Post Office revenue. (d) Vehicles in actual use on roads from 1930. (e) All receivers at the one address covered by one licence from 1952. (f) Combined radio and television licences included since 1 April 1965. (g) From 1968-69 content not comparable with previous years.

STATISTICAL SUMMARY

PUBLIC FINANCE

Year	State Government					State Taxation (a)	Local Government Revenue		
	Total Revenue	Expenditure		Public Debt			From Rates	Government Grants	Total
		From Revenue	From Loan (Net)	Total	Per Head				
	\$'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		114	
1860-61	1,117	966		1,733	13.30	282	46	54	
1865-66	1,900	2,130		1,551	9.20	478	60	60	
1870-71	1,556	1,519		4,335	23.00	498	80	74	
1875-76	2,640	2,647		7,674	34.20	920	118	80	
1880-81	4,344	4,108		22,394	78.30	1,168	188	136	
1885-86	4,558	4,767	2,800	36,680	118.60	1,603	208	108	
1890-91	5,464	5,207	968	43,315	135.80	1,655	276	254	
1895-96	5,043	5,019	886	48,433	137.60	1,600	264	194	
1900-01	5,648	5,693	845	52,129	146.40	1,203	302	222	
1905-06	5,612	5,437	900	60,165	165.80	735	348	198	
1910-11	8,363	7,929	3,752	(b)56,065	136.50	1,092	481	336	
1915-16	8,714	9,483	4,371	79,049	179.40	1,403	652	302	
1920-21	14,303	15,087	9,351	104,725	210.70	3,244	986	580	
1925-26	20,948	20,922	12,860	160,521	290.10	5,428	1,640	942	
1926-27	21,570	23,669	12,149	173,121	306.40	5,771	1,804	940	
1927-28	22,694	23,244	9,865	181,225	317.20	7,473	1,908	1,031	
1928-29	21,682	23,544	7,056	183,307	323.80	7,536	1,976	1,128	
1929-30	21,102	24,354	4,977	186,838	326.00	6,976	1,942	1,003	
1930-31	21,452	25,079	6,581	199,055	345.70	6,800	1,672	397	
1931-32	20,964	23,091	568	203,198	351.50	6,153	1,584	503	
1932-33	20,321	22,339	7,038	207,415	357.00	5,467	1,572	628	
1933-34	20,376	22,064	3,361	210,839	361.40	5,818	1,574	490	
1934-35	22,003	21,931	1,131	210,699	360.10	6,449	1,210	557	
1935-36	22,819	22,521	2,502	211,397	359.70	6,409	1,665	509	
1936-37	23,479	23,200	1,653	213,188	361.80	7,081	1,674	586	
1937-38	24,922	24,669	1,230	214,901	362.40	7,844	1,745	610	
1938-39	24,607	25,402	843	217,774	365.00	8,232	1,779	768	
1939-40	25,511	25,837	1,253	218,688	365.00	9,127	1,835	686	
1940-41	25,849	26,015	2,548	219,599	365.30	8,683	1,851	577	
1941-42	30,004	27,425	263	218,380	359.00	(c) 9,484	1,909	337	
1942-43	30,385	29,919	Cr. 1,640	216,858	353.70	3,091	1,953	275	
1943-44	31,090	31,059	Cr. 896	216,610	349.60	3,262	1,924	299	
1944-45	32,226	32,226	Cr. 83	217,742	347.00	3,724	1,935	366	
1945-46	32,687	32,687	3,419	221,498	348.80	4,036	2,040	451	
1946-47	34,385	34,506	4,423	228,260	353.20	4,286	2,271	697	
1947-48	37,686	38,312	4,963	237,704	359.50	4,573	2,610	923	
1948-49	43,690	44,259	9,281	249,440	367.20	5,740	2,967	1,106	
1949-50	58,721	59,100	17,339	266,349	375.40	6,591	3,248	1,496	
1950-51	67,344	66,885	33,871	296,776	405.20	8,104	3,830	1,963	
1951-52	85,276	85,098	52,875	346,872	459.40	9,586	4,686	2,578	
1952-53	98,203	98,153	40,885	389,706	502.30	9,983	5,761	2,306	
1953-54	104,751	101,132	39,879	429,446	538.80	13,073	6,524	3,867	
1954-55	103,768	108,236	42,912	472,925	577.10	15,092	7,041	3,836	
1955-56	118,805	121,665	42,666	512,179	603.60	16,150	8,162	4,381	
1956-57	131,522	131,619	43,793	552,880	633.20	18,620	9,563	4,733	
1957-58	141,285	142,083	37,153	593,628	662.00	19,541	10,333	4,848	
1958-59	145,360	147,414	41,442	635,404	690.00	20,435	11,060	4,948	
1959-60	160,555	161,177	43,432	678,210	717.50	22,297	11,971	5,478	
1960-61	172,559	170,182	44,739	722,038	743.20	23,425	13,076	(d)3,524	
1961-62	186,405	185,392	43,773	763,399	773.10	25,150	14,887	2,984	
1962-63	195,168	194,589	42,047	807,044	798.50	26,940	15,943	3,215	
1963-64	211,006	207,755	44,218	853,553	822.30	29,825	16,968	4,317	
1964-65	222,181	224,803	53,100	902,823	845.70	34,901	18,625	3,804	
1965-66	236,816	243,650	55,089	955,128	872.30	36,852	20,412	4,106	
1966-67	258,823	258,717	57,016	1,013,060	913.00	43,780	22,875	4,244	
1967-68	274,544	277,404	55,382	1,074,959	958.30	47,188	24,369	4,493	
1968-69	298,355	297,895	61,390	1,143,954	1,004.10	52,463	26,276	4,277	
1969-70	338,498	335,578	67,469	1,210,489	1,045.30	58,658	27,589	5,236	
1970-71	386,859	386,838	71,491	1,256,337	1,070.40	61,550	*	*	
1971-72	455,245	456,312	111,740	1,333,720	1,124.08	96,161	*	*	

(a) Excludes all taxation paid to Special Funds. From 1966-67 the coverage of this item does not completely coincide with S.A. Treasury classifications.

(b) Debt of Northern Territory and Port Augusta-Oodnadatta railway transferred to Commonwealth.

(c) Uniform taxation in force.

(d) Excludes reimbursement for work done on behalf of Highways Department from 1961.

PRIVATE FINANCE

Year	Banking			Life Insurance		General Insurance Revenue (b)	Members		
	Trading Banks		Savings Bank Deposits at 30 June	New Policies Issued Sum Assured	Policies in Existence Sum Assured		Co-operative Societies (b)	Friendly Societies	Building Societies (b)
	Advances (a)	Deposits (a)							
\$'000									
Number									
1846		183							
1851		426	29						
1856		1,419	106						
1861	2,864	1,480	243						
1866	6,240	2,803	499						
1871	5,715	3,043	982						
1876	9,449	6,632	1,703						
1881	13,483	9,885	2,499						
1886	19,226	9,924	3,306						
1891	16,297	15,550	4,316						
1896	9,470	15,343	5,673						
1901	8,546	13,437	7,591						
1906	10,612	15,598	9,534						
1911	16,970	22,257	14,872				10,248		9,572
1916	20,325	27,264	20,070				13,270	65,540	8,962
1921	27,296	44,199	32,635	6,000	40,272	1,305	28,762	70,155	10,621
1926	31,672	51,574	43,558	9,341	60,244	2,045	41,539	77,791	17,011
1927	38,159	53,555	47,202	9,666	63,689	2,285	42,386	78,422	18,003
1928	38,612	52,572	49,883	9,800	67,108	2,246	44,000	78,284	19,208
1929	46,161	46,045	50,457	9,297	69,469	2,216	45,176	77,785	19,161
1930	47,412	44,869	48,024	8,132	68,312	2,007	45,346	76,363	16,663
1931	44,119	44,956	42,844	6,266	65,016	1,627	45,791	(c)	14,081
1932	41,232	48,503	43,134	7,060	64,905	1,640	47,189	72,133	11,869
1933	42,198	49,571	45,031	7,556	66,083	1,652	42,614	71,275	10,814
1934	42,524	51,633	46,875	7,847	67,785	1,651	42,746	70,881	9,715
1935	44,285	51,269	48,370	9,160	71,130	1,698	44,080	71,043	9,617
1936	43,760	52,399	50,617	10,791	75,984	1,859	45,592	71,658	9,257
1937	41,957	57,751	53,012	12,511	82,328	2,127	49,456	73,131	9,418
1938	44,244	58,720	54,487	12,070	87,769	2,434	52,064	74,703	10,364
1939	45,019	58,680	54,794	11,434	92,583	2,527	53,320	74,486	10,369
1940	41,697	61,792	53,127	10,090	96,387	2,584	53,943	75,481	10,532
1941	39,547	64,182	55,019	11,416	101,825	2,643	n.a.	76,357	n.a.
1942	36,082	73,975	61,232	9,812	106,429	2,802	n.a.	77,233	n.a.
1943	32,574	86,491	77,126	10,783	112,590	2,706	n.a.	78,600	n.a.
1944	31,328	100,201	97,184	13,417	121,736	2,604	n.a.	79,530	n.a.
1945	31,970	108,498	113,991	14,816	130,764	2,602	64,924	80,403	16,894
1946	31,560	93,397	131,729	22,805	147,230	2,705	70,620	80,419	18,665
1947	39,674	99,653	135,800	24,935	165,025	3,372	80,150	79,827	19,774
1948	39,585	119,859	147,226	26,555	183,753	4,371	84,470	78,246	20,815
1949	41,387	142,558	162,351	29,003	204,289	5,755	87,733	76,761	22,017
1950	50,412	159,136	175,390	33,076	227,616	7,312	92,066	75,168	22,646
1951	62,109	206,743	195,698	44,899	261,931	9,298	92,424	71,591	22,782
1952	89,163	214,630	207,452	48,475	298,494	12,370	96,134	67,563	23,016
1953	79,574	247,260	227,750	51,671	335,457	14,593	100,323	63,922	23,801
1954	95,968	250,802	245,898	59,540	377,093	16,165	107,069	61,345	23,814
1955	106,740	250,795	263,384	70,458	426,881	18,321	109,667	59,149	24,397
1956	108,515	241,044	271,512	75,301	477,554	20,590	114,018	57,216	24,266
1957	105,618	266,897	284,802	89,470	539,120	23,835	109,636	55,499	(d)
1958	125,971	262,700	297,716	94,137	599,723	24,656	(d)	54,181	24,321
1959	124,924	272,599	314,304	111,440	676,406	26,223	112,844	53,114	24,665
1960	149,172	265,498	331,996	131,951	756,581	27,975	116,645	52,239	24,847
1961	147,348	269,848	333,485	143,628	841,563	32,363	111,031	51,551	24,835
1962	152,545	277,431	361,980	157,636	955,426	33,740	116,405	51,198	21,854
1963	175,753	285,418	416,155	165,183	1,056,390	37,499	108,283	50,765	21,260
1964	193,251	311,208	475,803	197,790	1,161,986	41,695	113,224	50,946	22,348
1965	223,573	347,045	459,268	215,946	1,294,450	45,433	115,828	51,258	22,746
1966	258,447	362,905	558,857	239,250	1,439,083	50,121 (e)	116,615	51,109	23,611
1967	284,271	372,985	605,167	279,996	1,618,112	56,114	125,638	51,001	23,722
1968	321,892	390,110	643,690	301,602	1,807,177	59,981	125,385	51,070	22,458
1969	354,782	405,666	691,778	346,917	2,031,479	65,354	126,529	50,880	26,373
1970	374,575	424,017	733,100	437,699	2,313,244	70,640	123,263	50,796	33,863
1971	396,183	431,863	787,901	525,879	2,667,651	76,020	124,021	50,488	41,670
1972	419,682	469,983	874,138	*	*	89,173	123,755	50,077	49,804

(a) Until 1961, average of balances at close of business on Wednesdays during the June quarter of the year stated. From 1962, average of balances at close of business on Wednesdays during the year ended 30 June of the year stated. (b) Year ended 30 June. (c) Membership at 30 June from 1932; previously 31 December. (d) Balance dates of societies do not coincide; from this year figures are aggregates of members at balance dates within the year ended 30 June. (e) Figures from 1966 have been revised because of a redefinition of Co-operative Societies, and details for years before 1966 are not comparable.

APPENDIX B

PRINCIPAL EVENTS

CHRONOLOGICAL LIST OF IMPORTANT EVENTS IN SOUTH AUSTRALIA SINCE 1836

- 1836**—First migrants landed at Kangaroo Island on 20 July. First South Australian newspaper published in London. Colony's first school opened on Kangaroo Island. The Surveyor-General, Col Light, arrived in November and commenced survey of Adelaide. Governor Hindmarsh arrived in HMS *Buffalo* and proclaimed South Australia a Province on 28 December.
- 1837**—Col Light completed survey of Adelaide and designed the city's present layout. First Adelaide land allotments made. First newspaper published in South Australia. South Australian Supreme Court established. First hospital opened in North Terrace, Adelaide.
- 1838**—First overland cattle and sheep drives from New South Wales. First export from South Australia, a small clip of wool, dispatched. First German settlers under the leadership of Pastor Kavel arrived in South Australia. Formation of first police force.
- 1839**—Col Light died at Thebarton and buried in Light Square. First road in South Australia built between Adelaide and Port Adelaide. Adelaide Chamber of Commerce founded.
- 1840**—Eyre started overland journey to Western Australia. The Municipality of Adelaide incorporated, the first in Australia. McLaren Wharf, Port Adelaide, opened by Governor Gawler.
- 1841**—First South Australian mine (silver-lead) opened near Glen Osmond. Assisted migration suspended because of depression. Following financial crisis Governor Gawler recalled and succeeded by Governor Grey. Eyre arrived at Albany in Western Australia.

- 1842—Registration of births, deaths and marriages commenced. Portions of South Australia divided for first time into counties. Copper discovered at Kapunda. Legislative Council constituted. The South Australian Board of Colonisation Commissioners abolished by the British Government.
- 1843—Stripper invented by Ridley. A flour mill built at Hindmarsh.
- 1844—First Colonial Census held, and showed a population of 17,366.
- 1845—Copper discovered at Burra. Sturt explored the north-eastern part of the State. Gold found in South Australia, near Montacute. Assisted migration resumed.
- 1846—First pastoral leases granted.
- 1847—First winery in the Barossa Valley commenced operation. St Peters College established.
- 1848—Opening of The Savings Bank of South Australia. First ferry across the River Murray commenced operations at Wellington.
- 1849—The Central Board of Main Roads established.
- 1850—An Act granting representative government to South Australia passed by the British Parliament.
- 1851—The Central Board of Education set up.
- 1852—First overland gold escort arrived in Adelaide.
- 1853—W. R. Randell's *Mary Ann* and Francis Cadell's *Lady Augusta* initiated the navigation of the Murray.
- 1854—State's first railway (horse-drawn) built from Goolwa to Port Elliot.
- 1855—First South Australian postage stamps issued.
- 1856—First telegraph line opened from Adelaide to Port Adelaide. The new Constitution Act embodying the principle of responsible government proclaimed; it provided for Parliament to consist of two Houses; a Legislative Council and a House of Assembly. First steam railway from Adelaide to Port Adelaide constructed. Population of the State passed 100,000.
- 1857—Railway to Smithfield and Gawler opened.
- 1858—The Real Property Act, which embodied the principles of conveyancing formulated by Torrens, came into operation. First telegraph line to Melbourne opened.
- 1859—A jetty over 1,200 feet in length constructed at Glenelg. Copper discovered at Wallaroo.
- 1860—Water supplied to the City of Adelaide by means of a main connected with the reservoir at Thorndon Park.
- 1861—Copper discovered at Moonta. Water laid on to houses in Adelaide. John McDouall Stuart set out to cross the continent from south to north. The South Australian boundary shifted west to coincide with the boundary of Western Australia.
- 1862—Stuart reached Chambers Bay on the coast of the Northern Territory.
- 1863—Administration of the Northern Territory taken over by South Australia. Shops of Adelaide lit for the first time with gas.
- 1865—Annual leases of pastoral lands sold by auction for first time. The Bank of Adelaide founded.
- 1866—Camels for the purpose of exploration introduced by Sir Thomas Elder. The Adelaide Town Hall opened.

- 1867—Visit of Alfred, Duke of Edinburgh, who laid the foundation stone of the General Post Office.
- 1869—Foundation stone of St Peters Cathedral laid. Prince Alfred College opened. Adelaide Chamber of Manufactures founded.
- 1870—Construction of the transcontinental telegraph from Port Darwin commenced. John Forrest and party made first of two journeys of exploration from Perth.
- 1872—Transcontinental telegraph from Port Darwin completed and first direct telegram from London received.
- 1873—Eight-hour working day adopted. First Health Act, establishing a Central Board of Health, passed.
- 1874—The University of Adelaide founded.
- 1875—The State Education Act passed. First Forestry Board established.
- 1876—Telegraph communication with New Zealand established. The Smith brothers invented the 'stump jump' plough. South Australia became first State to give legal recognition to trade unions.
- 1877—Overland telegraph line from Port Augusta to Eucla completed and first telegram from Perth transmitted. The Adelaide Bridge completed.
- 1878—Provisions of the Education Act relating to compulsory school attendance brought into force in the Adelaide school district. First tramway (horse-drawn) in any Australian city commenced carrying passengers to Kensington and North Adelaide. The State's population passed 250,000.
- 1879—Foundation stone of the Adelaide University laid. First bridge across River Murray in South Australia opened at Murray Bridge.
- 1881—First reclamation of swamp areas of River Murray. Art Gallery opened by His Royal Highness Prince Albert Victor. Construction of the weir which created the Torrens Lake completed.
- 1882—Establishment of Fire Brigades Board.
- 1883—The Telephone Exchange commenced operations. Roseworthy Agricultural College opened to students.
- 1884—Largs Bay Fort opened. Adelaide Trades and Labor Council, the first delegates society, inaugurated.
- 1885—Broken Hill silver mines opened. Column erected on Mount Lofty summit as a prominent landmark for mariners.
- 1887—Act authorising payment to members of Parliament passed. Renmark Irrigation Colony established. First express trains ran between Adelaide and Melbourne. The Jubilee Exhibition opened. Stock Exchange of Adelaide formed by amalgamation of Adelaide Stock Exchange and Stock Exchange of South Australia.
- 1888—Totalisator legally authorised by an Act of Parliament.
- 1889—The School of Mines and Industries opened. Smelting of silver-lead ore from Broken Hill commenced at Port Pirie.
- 1890—First South Australian built locomotive completed.
- 1892—Education made free to the compulsory age, and standard.
- 1894—Act granting the franchise to women passed. Inauguration of industrial arbitration by the establishment of Boards of Conciliation.
- 1896—State Bank of South Australia opened. Women voted for the first time at the general election. Happy Valley Reservoir opened. One of Adelaide's most severe droughts commenced, and continued for several years.

- 1899—Second referendum concerning the establishment of Federation held. In South Australia, 65,990 electors voted for Federation and 17,053 against. First military contingent left South Australia for the Boer War.
- 1900—Adelaide lit for the first time with electric light. The Commonwealth of Australia Constitution Act received Royal Assent and a Proclamation was issued uniting the States as the Commonwealth of Australia as from 1 January 1901. Conservatorium of Music opened. First Workmen's Compensation Act passed.
- 1901—Early closing of shops introduced. First Commonwealth Parliament elected. The Duke and Duchess of York arrived in the *Ophir*. The Commonwealth 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 Commonwealth 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 old age pensions by the Commonwealth commenced.
- 1910—Payment of invalid pensions by the Commonwealth 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.
- 1913—Medical inspection of school children introduced. Commonwealth Bank formally opened. Metropolitan Abattoirs established.
- 1914—First South Australian military expeditionary force embarked at Outer Harbor. South Australia experienced its most severe drought.
- 1915—Prices of commodities fixed by a commission. A referendum approved the closing of liquor bars at 6 p.m. Women appointed as justices of the peace for the first time. First shipment of iron ore made from Whyalla to steelworks in Newcastle. First women police appointed. Opal discovered at Coober Pedy.
- 1916—Referendum proposing compulsory military service abroad defeated. First Public Service Commissioner appointed. First State living wage with general application declared.
- 1917—German private schools in South Australia were closed. East-West trans-continental railway completed and the first train ran to Perth. Mr R. G. Carey, in a Bleriot 60, made the State's first airmail flight from Enfield to Gawler.
- 1919—Captain Butler flew from Adelaide across Gulf St Vincent carrying air mail to Minlaton. Soldier Settlement Bill passed by the South Australian Parliament. First Lord Mayor of Adelaide elected.

- 1920**—Sir Ross Smith and party arrived at Adelaide by non-stop flight from Melbourne. Peace Exhibition held at the Jubilee Exhibition buildings. The Prince of Wales visited South Australia.
- 1921**—The State's population passed 500,000.
- 1922**—First lock on the River Murray completed and opened at Blanchetown.
- 1923**—The Government approved an extensive re-organisation of the railway system.
- 1924**—Public Debt Commissioners were appointed. Air mail between Adelaide and Sydney inaugurated. Waite Agricultural Research Institute established. First radio stations commenced broadcasting.
- 1925**—Show Grounds at Wayville opened. The first Commonwealth 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 3ft 6in gauge railway from Oodnadatta to Alice Springs approved. State petrol tax declared invalid following a Commonwealth 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. Commonwealth 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**—Wool auction values for the season rose 6c to 12c a lb. 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 whose names 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 Commonwealth 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 6,662 million gallons filled, almost doubling Adelaide's water storage. Schools closed and other precautions taken as a result of an epidemic of poliomyelitis.

- 1938**—First South Australian Housing Trust dwelling completed.
- 1939**—State's worst heat wave and disastrous bush fires experienced during the first two months of the year. Record high temperature of 47.6°C recorded in Adelaide. New Parliament House opened by His Excellency the Governor-General, Lord Gowrie.
- 1940**—Goolwa Barrage completed at a cost of \$1,400,000. Birkenhead Bridge opened. A rapid development of secondary industry took place as munition annexes were added to existing factories and new factories were opened.
- 1941**—Scriptural instruction in State schools commenced. First naval vessel built in South Australia launched. First blast furnace to be built at Whyalla went into operation. Child endowment payments inaugurated. Pay-roll 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 pensions 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 munition factories taken over by various private firms. Payment of government subsidies to hospitals commenced. Restrictions on the use of gas and electricity again imposed. The South Australian Electricity Trust took over the property and functions of the Adelaide Electric Supply Co.
- 1947**—Fruit fly detected in metropolitan orchards and efforts made to eliminate it by stripping gardens and orchards. Sugar rationing abolished. Conciliation commissioners appointed following an amendment to the Commonwealth Conciliation and Arbitration Act. Severe restrictions imposed on imports from North America.
- 1948**—Restrictions on the use of gas and electricity imposed on a number of occasions during the year because of the shortage of coal. Preparation of the Woomera rocket range commenced. Forty hour working week introduced by Arbitration Court award. Serious bush fires occurred in January. Severe storms during April resulted in widespread damage including the destruction of the Glenelg jetty. Referendum on Commonwealth price control defeated. The free medicine scheme came into operation. Clothing and meat rationing abolished. Control of prices handed to the States by the Commonwealth. Full-scale production of the 'Holden' car commenced.

- 1949**—Petrol rationing by the Commonwealth 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. Commonwealth free drugs scheme came into operation. Basic wage increased by \$2 a week. Water restrictions imposed in December and remained in force until June 1951.
- 1951**—Serious bush fires occurred in January. Wool prices reached a record high level. Distribution of free milk to school children introduced.
- 1952**—The hospital benefits scheme came into operation. Price control on clothing removed in South Australia. Severe import restrictions gazetted. Installations for the bulk handling of grain opened at Ardrossan. Compulsory chest X-rays introduced.
- 1953**—Remaining controls on building removed. Port Pirie became the first country town to be proclaimed a city. The medical benefits scheme came into operation. Automatic quarterly cost-of-living adjustments to the basic wage discontinued. Size of the State Cabinet increased from six to eight Ministers.
- 1954**—A severe earthquake occurred in Adelaide on 1 March. Her Majesty Queen Elizabeth II visited South Australia. First unit of Port Augusta power station opened. Construction of dwellings in Elizabeth commenced. Radium Hill mines and treatment works officially opened. Water from the River Murray pumped into metropolitan reservoirs through the Mannum pipeline.
- 1955**—Adelaide Airport at West Beach opened. Mannum-Adelaide pipeline officially opened. The sulphuric acid plant at Port Adelaide commenced operations. Uranium treatment at Port Pirie also commenced. 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. Pyrites plant at Nairne opened. Charges for beds in public wards at the Royal Adelaide Hospital made for the first time. Atomic device exploded at Maralinga. Salk poliomyelitis vaccination programme 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 Commonwealth Grants Commission. Full-scale television transmission commenced. Sir Thomas Playford created record term as Premier in a British country (26 years 125 days). Aborigines became eligible for age, invalid and widows pensions.
- 1960**—First Adelaide Festival of Arts held (March 12-26). Discovery of high grade limesand deposits near Coffin Bay. 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. Post trading replaced call system at stock exchange.
- 1962**—Deliveries of bulk wheat from farms exceeded the quantity of bagged grain for the first time. 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. Ratifying legislation passed for construction of Chowilla dam. First direct dialling for an overseas telephone call from South Australia. Major gas flow from Gidgealpa No. 2 well. Royal visit by Her Majesty, Queen Elizabeth II.
- 1964**—Work commenced on conversion of Port Pirie-Broken Hill railway to standard gauge. First gas from Port Stanvac refinery piped for use in Adelaide's gas supply. Record wind gust (148 km/h) and all-time low barometric reading (986 mb) registered at Adelaide on 12 July. New world land speed record set by Donald Campbell on Lake Eyre.
- 1965**—Election of first Labor State Government since 1933. First country television station opened at Port Pirie. Steel works including a basic oxygen steel making plant opened at Whyalla. First tenders let for Torrens Island power structure. First woman judge in Australia appointed to Supreme Court of South Australia. Size of the State Cabinet increased from eight to nine Ministers.
- 1966**—Women sworn in for jury service for the first time. The Flinders University of South Australia at Bedford Park officially opened by Queen Elizabeth, the Queen Mother. Second major natural gas strike in Gidgealpa area. New outlet tunnel 9,000ft long from Happy Valley Reservoir completed. ELDO rocket Europa-1 launched at Woomera. Industrial Commission of S.A. replaced the S.A. Board of Industry.
- 1967**—Totalizator Agency Board operated off-course in South Australia for the first time. First South Australian lottery drawn. Commonwealth Basic Wage superseded by Total Wage concept. Liquor trading hours extended to 10 p.m. WRESAT-1, first Australian orbital satellite launched from Woomera. New record low annual rainfall for Adelaide (257 mm). Torrens Island power station commenced operations. First off-shore drilling rig—*Ocean Digger*—constructed and launched at Whyalla.
- 1968**—State elections held, Labor Government returned but subsequently defeated on the floor of the House at the first meeting of the new Parliament. New Liberal Premier, Mr R. S. Hall sworn in. Four weeks leave for State Government employees introduced. Construction commenced on State's first satellite communications station at Ceduna. Legal drinking age lowered from twenty-one to twenty. Sealed highway from Broken Hill to Adelaide opened. Sir James Harrison first Australian-born governor of South Australia sworn in.

- 1969**—Work begun on second major pipeline to bring River Murray water to Adelaide. Chowilla dam project deferred indefinitely. Forty-first Congress of the Australian and New Zealand Association for the Advancement of Science held in Adelaide. Electricity Trust signed \$120 million contract for supply of natural gas. Natural gas flowed through completed 486 mile pipeline from Moomba-Gidgealpa to Adelaide.
- 1970**—Bulk carrier of 55,000 tons the *Yarra River*, the fiftieth ship to be built at Whyalla since 1941, launched. Abortion law reformed in South Australia. Standard gauge working on new line between Port Pirie and Broken Hill begun. First direct telecast from England to Australia via satellite. Plans announced for Australian Mineral Foundation at Glenside after a \$1 million gift. Hall LCL Government defeated on vital issue and Dunstan ALP Government elected at subsequent general election. Hairy-nosed wombat adopted as State's faunal emblem. World record price of \$27,200 paid for merino stud ram at Adelaide Royal Show. Ministry increased by one to ten members. South Australian wine production of 43,764,704 gallons in 1969-70 a record.
- 1971**—Fluoridation of Adelaide Water Supply commenced. Agreement for supply of natural gas to Sydney from South Australian gas fields finalised. Points demerit scheme for drivers who commit road traffic offences introduced. Age of Majority reduced from twenty-one to eighteen. Commonwealth Government transferred power to levy payroll tax to the States. Ministry of Environment and Conservation created. Daylight saving introduced in South Australia for the first time since the 1939-45 War. Agreement to build Dartmouth Reservoir ratified by S.A. Parliament. Plans announced for development of Patchawarra oil field estimated cost of \$200 million including pipelines to Adelaide and Sydney. Death of S.A. Governor Sir James Harrison in office and Sir Mark Oliphant, the first S.A. born Governor, sworn in. Wearing of seat belts in motor vehicles made compulsory.
- 1972**—Seventh Festival of Arts held in Adelaide. Plans announced for creation of new city of more than 100,000 people near Murray Bridge. S.A. liquor laws relaxed. New Stirling to Verdun freeway opened. Plans announced for the sealing of the Eyre Highway from Penong to the W.A. border. Another major oil flow from the Tirrawarra field announced. New laws regulating door-to-door selling and used car dealing introduced. The *Clutha Capricorn* of 83,000 tons, the largest ship ever built in Australia, launched at Whyalla. Plans to filter Adelaide's water supply at a cost of \$35 million announced. University of Adelaide's educational radio station VL5UV commenced broadcasting. Work begun on \$40 million Flinders University medical centre. New Community Welfare, Mining and Juvenile Courts Acts came into operation. Weather temperature reports changed to degrees Celsius. North Haven residential project to house 4,000 people at the northern end of Le Fevre Peninsula announced. Daylight saving re-introduced for 1972-73 and subsequent summers. South Australian Film Corporation commenced operation. South Australia's first ombudsman, Mr. G. D. Combe, appointed.
- 1973**—Dunstan ALP Government returned at State election to become the first ALP Government to retain office after a general election since 1910. Modbury Hospital opened. \$6.6 million Adelaide Festival Theatre opened. Adult franchise and proportional representation introduced for S.A. Legislative Council. Cattle and pig numbers in S.A. a record.

APPENDIX C

RECENT INFORMATION

In this section details are given of some important developments which have occurred recently.

More up-to-date statistics than those shown in this volume are regularly incorporated in various statistical publications as they become available. A List of Publications is set out on page 665.

PART 3—CONSTITUTION AND GOVERNMENT

Government of South Australia (pages 67-85)—On 27 June 1973 two Acts, the Constitution Act Amendment Act, 1973 and the Constitution and Electoral Acts Amendment Act, 1973, were passed by the South Australian Parliament. The Acts were referred for signification to Her Majesty, the Queen on 4 July 1973.

The effect of the first Act is to enable all electors enrolled on the House of Assembly electoral roll to vote at Legislative Council elections. The second Act implements a system of proportional representation for Legislative Council elections and increases the number of members by two to twenty-two, eleven members being returned at each election.

PART 6—SOCIAL ENVIRONMENT

Social Welfare (pages 250-75)—In December 1972 the Commonwealth Department of Social Services was abolished and the Australian Department of Social Security was created. The new Department of Social Security administers those Acts formerly administered by the Department of Social Services and that part of

the National Health Act relating to hospital and medical benefits, nursing homes, Pensioner Medical Service and the Subsidised Health Benefits Plan previously controlled by the Commonwealth Department of Health.

In March 1973 pension rates were generally raised and from that date the following pensions and benefits have applied:

	\$
Standard rate age and invalid pension	21.50
Married rate age and invalid pension (each)	18.75
Wife's pension (wife of a pensioner if ineligible in her own right)	18.75
Basic widow's pension (all classes)	21.50
Unemployment and sickness benefit, single rate	21.50
Unemployment and sickness benefit, married couple	37.50

Supplementary assistance of \$4 a week is payable after six weeks continuous receipt of sickness benefit.

PART 7—LABOUR

National Wage Case 1972-73 (page 305)—On 15 December 1972 further consideration of claims concerned with the male minimum wage and with the general level of award wages under the 1972 National Wage hearing was adjourned to 13 March 1973.

At the adjourned hearing the Metal Trades Unions applied to increase adult rates by \$11.50 per week, to prescribe a minimum wage for adult males of \$65.00 per week and to provide for automatic quarterly adjustment of the minimum wage according to changes in the Consumer Price Index. The white collar unions sought an increase of 10 per cent plus \$2.90 in Federal rates and a 7.5 per cent increase in those of the Commonwealth Public Service. The Commission granted a combination increase of 2 per cent of current award rates plus \$2.50 as a flat amount to apply to both adult male and female rates thus raising the minimum wage in South Australia to \$59.60. Juniors and apprentices received proportionate increases. The Commission again rejected quarterly adjustments of the minimum wage. The new rates came into effect from the beginning of the first pay period to commence on or after 29 May 1973.

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Flinders University of South Australia: Vice-Chancellor and staff members of Flinders University; 1967, 163-8.

The Wine Industry of South Australia: J. C. M. Fornachon and E. W. Boehm; 1968, 376-95.

Soils of South Australia: K. C. Northcote and J. A. Beare; 1969, 21-31.

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Geology of South Australia: N. H. Ludbrook and R. K. Johns; 1970, 3-18.

Mammals of South Australia: P. F. Aitken; 1970, 42-9.

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