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CHAPTER 20

EDUCATION, CULTURAL ACTIVITIES, AND RESEARCH

For the most recent statistics available on subjects dealt with in this chapter reference should be made to the series of mimeographed bulletins on *Social Statistics* issued by this Bureau. The *Quarterly Summary of Australian Statistics* contains summarised information on these subjects, and financial aspects are dealt with in the annual bulletins *Commonwealth Finance and State, Territory and Local Government Authorities' Finance and Government Securities*. The Annual Reports of the respective State education departments provide detailed statistical and other information about particular States. Publications on education in Australia, secondary schooling, and other topics are issued by the Commonwealth Department of Education and Science.

EDUCATION

An account of the development of the Australian school system up to 1929 may be found in Year Book No. 22. In Year Book No. 40 a review of changes which occurred up to 1951 and of the practices then current was presented. The present situation is summarised in the early part of this chapter, in textual material provided by the Commonwealth Department of Education and Science.

Education in Australian schools

Administration and organisation

In Australia the provision of schools is mainly the responsibility of State governments. During the nineteenth century all six Australian colonies had established systems of compulsory education, beginning with the *Education Act 1872* in Victoria, and followed by similar Acts in Queensland (1875), South Australia (1875), New South Wales (1880), Tasmania (1893), and Western Australia (1893). After Federation in 1901 education was one of the responsibilities retained by the States, and these acts, with subsequent amendments, constitute the legal basis of compulsory education in the Australian States today. The Commonwealth has responsibilities for the provision of education facilities in the Northern Territory and the Australian Capital Territory. The government school system in the Australian Capital Territory is staffed by the New South Wales Department of Education and follows the educational syllabus of that State, the cost being recovered from the Commonwealth Government. Until 1970, a similar arrangement existed with the South Australian Department of Education in the operation of schools in the Northern Territory, but the Commonwealth Government has now established a Commonwealth teaching service to recruit and train teachers for the Northern Territory. The Commonwealth also provides direct financial assistance in various forms to schools throughout Australia.

School attendance is compulsory throughout Australia between the ages of six and, at least, fifteen. The minimum leaving age is fifteen years in New South Wales, Victoria, Queensland, and South Australia, and sixteen years in Tasmania, while in Western Australia attendance is compulsory until the end of the year in which the child turns fifteen years. The Education Acts require that all children between the prescribed ages must attend either a government school or some other recognised educational institution. Children may be exempted from the requirement of compulsory attendance if they live too far from a school or suffer a physical disability. These children usually receive correspondence tuition.

The school year in Australia begins at the end of January or early in February; it ends in mid-December. The long vacation is taken over the summer months (December to February) and two short vacations divide the school year into three terms.

At government primary schools it is usual for both boys and girls to attend the same school; at the secondary level practices vary, but the trend is towards co-educational schools. Non-government secondary schools cater mainly for boys and girls separately but recently a few major independent schools have become co-educational.

Government school systems

Although the educational systems in the six States are not identical, they have many similar features. Responsibility for framing educational policy and having it put into effect rests with a Minister for Education, who is a member of the State Cabinet. The administrative authority in

each State is an education department headed by a Director-General of Education. Separate divisions of the education department in each State administer primary, secondary and technical education (in New South Wales there is a separate Department of Technical Education). Other divisions look after such matters as the recruitment and training of teachers, pupil guidance, research, and the education of atypical children. In New South Wales and Queensland, administration has been decentralised to a degree by the appointment of directors who are responsible for policy in the area which they control.

Tuition at government primary and secondary schools is free in all States. Parents are usually expected to bear the cost of textbooks, uniforms and charges for such things as the use of sports materials. However, income tax concessions exist in respect of these expenditures for both government and non-government systems, and certain textbook costs are subsidised in the case of pupils attending government and non-government schools in some States.

Non-government school systems

Approximately 22 per cent of Australian school children were enrolled at non-government primary and secondary schools in 1970, and about 81 per cent of these attended Roman Catholic schools. The majority of other non-government schools, sometimes known as 'private' or 'independent' schools, are conducted by, or are under the auspices of, various other religious denominations, particularly the Church of England, Presbyterian and Methodist Churches. A few non-government schools are undenominational and are conducted under the auspices of corporate bodies. Non-government schools follow curricula similar to those laid down by State education departments, and prepare their pupils for examinations conducted by public examining bodies.

The methods adopted by the education authorities to ensure an acceptable standard of education at non-government schools vary from State to State. In New South Wales, Victoria, South Australia and Tasmania, these schools are regularly inspected. In Victoria and Tasmania, schools and teachers must be registered. Non-government schools in Queensland and also those in Western Australia are inspected on request.

The principals of a number of the larger non-government schools have formed organisations with both State and Australia-wide coverage, namely the Headmasters Conference of the Independent Schools of Australia and the Association of Heads of Independent Girls Schools of Australia. The National Council of Independent Schools represents all independent schools and aims to promote their interests.

Most Roman Catholic parish schools charge fees, but payment is not insisted on in the case of families who cannot afford it. At the majority of non-government secondary schools, privately endowed scholarships are available, and reductions in fees are normally made for children of clergy or for two or more members of one family attending the same school. With these exceptions, pupils of non-government schools must pay fees.

Certain State scholarships and bursaries are tenable at approved non-government secondary schools. From the establishment of school systems by the State governments, official policy has been largely against the provision of direct financial assistance to non-government schools, but since 1967, all States have introduced some system of direct assistance to non-government schools, usually in the form of pupil allowances. Most States also assist non-government schools in approved building projects. For details of Commonwealth finance for the building and equipping of science laboratories and school libraries, *see* pages 665-6 and 660.

Schools and courses

A diagram of State and Territory school systems, showing current grades, examinations, and age levels is shown on Plate 35 page 635.

Primary education. Though school attendance is not compulsory until the age of six, many children begin school before that age, attending infants schools or infants classes attached to a primary school. In some States the first year in the infants department is known as 'kindergarten'. The emphasis in infants classes is on the development of skills in language and numbers.

Primary schools are normally provided when and where there is sufficient population to justify them. Irrespective of the size or the location of the school, standards of tuition are similar because teachers within a State follow similar courses of training and transfer between metropolitan and country areas. The education departments prescribe syllabuses of instruction, which are drawn up with the assistance of expert committees.

Progression from primary to secondary school is usually automatic. Allocation to particular schools or particular courses is based on the district in which the child lives, the recommendations of the headmaster, general ability tests, tests of achievement in the basic subjects, and parents' wishes.

Secondary education. The age of transfer from a government primary to secondary school is usually between twelve and thirteen. The secondary pupil takes up new studies, such as foreign languages, technical or commercial subjects, and moves on to more specialised studies in natural and social sciences and mathematics. The actual subjects studied depend on the ability of the pupil and, in some States, the type of school.

The most common type of secondary school is the comprehensive or multi-purpose high school, which offers a wide range of subjects. To cater for this diversity of subjects, most high schools now have modern facilities for the teaching of domestic science, commercial subjects, woodwork, and other technical subjects. In some States there are still, however, separate high schools specialising in technical, agricultural, commercial, or home science subjects. Some of the agricultural high schools are residential. The curriculum consists of general educational subjects and practical farm training. There are also 'area' and 'rural' schools offering up to three years of secondary study.

Examinations

For information on examination procedures up to 1969, see Year Book No. 55, pages 485 and 486. Changes taking place from 1969 are set out below.

Victoria. In 1970, the Victorian matriculation examination was renamed, the Victorian Higher School Certificate Examination.

Queensland. The last Junior Examination was held in 1970 and a Certificate based on school assessment is to be issued from 1971. The last Senior Examination will be held not later than 1972 and certificates based on school assessment will be issued as from the following year.

Western Australia. Since 1970, all first year high school pupils in government schools and many in non-government schools study under the Achievement Certificate System which replaced the Junior Certificate examination. Pupils are required to take four 'core' subjects (English, mathematics, social studies, and science) and to study one or more of a wide range of subjects, including languages, art, trade subjects, music, and drama. An Achievement Certificate is awarded when the pupil leaves school, assessment being based on a cumulative record of achievements maintained at the school.

Tasmania. The Schools Board Certificate examination at the end of fourth year was discontinued in 1969, and replaced by an internal School Certificate examination. The matriculation examination has been renamed the Higher School Certificate.

Special facilities for pupils

Details of medical and dental inspection of school children, and the provision of free milk are given in Chapter 14, Public Health. In Year Book No. 55, a general description is given of provisions for isolated areas, schools of the air and correspondence schools (pages 494 and 495), handicapped children and physical education (page 495), and educational guidance and school broadcasting and television (page 496). The following particulars supplement that information.

Aboriginal education. Aboriginal children in towns and cities attend the same schools as other Australian children, but special schools for Aborigines have been developed on isolated settlements and mission stations, financed partly or wholly from government sources. A special Commonwealth Committee has been set up to advise on the educational and related needs of Aboriginal children enrolled in community schools in the Northern Territory. Education is one of the areas of Aboriginal affairs which has received considerable stimulation from Commonwealth assistance, financial and otherwise, following the 1967 Referendum and *Constitution Alteration (Aboriginals) 1967*.

School broadcasting. Both radio and television school broadcasts continue to be used extensively by schools. They are produced by the Australian Broadcasting Commission and, as a result of the increasing number of transmitting stations, are now available to almost all schools in the Commonwealth. Approximately 91 per cent of schools make some use of the radio programmes and about 66 per cent, of television. During the year almost 3,000 radio programmes and about 300 television programmes were produced and, in addition, over 200 television programmes, relevant to Australian needs, were purchased overseas. The increasing use of audio and videotape recorders by schools, especially in secondary departments, give a flexibility of usage that has greatly increased the utilisation of programmes. There are about 10 hours of radio and 25 hours of television available each week in each State.

Handicapped children. The Commonwealth Department of Social Services, in conjunction with the Commonwealth Departments of Health and of Education and Science, commenced a survey of handicapped children in 1970. Payments under the *States Grants (Independent Schools) Act 1969*, which provides assistance to eligible independent schools, including special independent schools for handicapped children, commenced in 1970.

Scholarships and bursaries

All States have schemes of financial assistance to school pupils, mostly at the secondary level, through scholarships or bursaries. As tuition in government schools is free, this assistance is usually in the form of maintenance allowances, both for children living with their parents and for those living away from home. These may be paid in a lump sum or in instalments throughout the year. Awards are usually made on the results of a competitive examination, and sometimes a means test is applied. Other government and private authorities, such as the Repatriation Department and the Legacy War Orphans Fund, assist certain categories of pupils with their school education. Many non-government schools also award scholarships, on a competitive basis, which enable pupils to attend the particular schools at reduced fees or without payment of fees.

In 1964 the Commonwealth Government, with the co-operation of the State education departments, introduced a programme of secondary scholarships to encourage successful candidates to complete the final two years of secondary schooling. Further details of the Commonwealth secondary scholarships scheme and the Commonwealth technical scholarship scheme are given on page 656.

Various forms of financial assistance, both government and non-government are available to help Aborigines to undertake further studies. In 1970, 100 secondary scholarships were awarded by Abschol, a scholarship scheme organised by the Australian Union of Students, for Aborigines; 608 primary and secondary scholarships were provided by the Aboriginal Education Incentive Scholarship Fund in Victoria; and 62 secondary scholarships were provided by the Aboriginal Education Council in New South Wales. See page 657 for details of the Aboriginal Study Grants Scheme, begun in 1968 by the Commonwealth.

Subsidised transport to and from school

All the States have systems of subsidies by which transport is free or at a concession rate for children who have to travel to and from school daily. In some States an allowance is paid if private transport has to be used.

Subsidies to children living away from home

For children whose homes are too far away from a secondary school to allow daily travel, some States run hostels or give financial assistance to privately owned hostels. The States also pay boarding allowances to the holders of State bursaries or scholarships and, in some cases, agricultural scholarships include free board at an agricultural high school.

School buildings

The increase in the school population in the last decade led to an expansion in school building. To cope with this growth in population, it has been necessary to make use of temporary and emergency structures. Quite large schools are being built in stages to match increases in local population in new and rapidly developing suburbs in metropolitan areas. For details of assistance provided by the Commonwealth for the building and equipping of science laboratories, see page 660.

Textbooks, materials and other equipment

The State education departments supply government schools, free of charge, with essential equipment, including scientific apparatus, maps, blackboards, chalk, and cleaning materials, and non-consumable equipment for commercial, home science and manual training. Garden tools and physical training equipment are also supplied in most States. Readers and writing equipment for individual pupils are sometimes supplied free in primary schools, and several education departments produce monthly school magazines which are supplied free or at a nominal price. In primary schools (except in one State where textbooks are made available free to children in both government and non-government primary schools) and in secondary schools, textbooks must, however, be purchased by pupils. In several States, schools own stocks of textbooks which are hired to pupils, and in one State, secondary textbooks are sold at reduced prices. In four States certain textbook costs are subsidised for pupils attending government and non-government schools. The parent and citizen organisations, with the assistance of subsidies from the education departments, are usually responsible for providing equipment such as radios and television sets, film strip projectors, pianos, duplicators and, in particular, library books.

Visual aids

Each of the State education departments has a visual education branch to handle the production and distribution of such materials. Film strips and posters are distributed free or at low costs. Films are held in central libraries and are requisitioned by schools as required for teaching purposes. Commonwealth financial assistance under the Secondary Schools Libraries Programme is available to State education departments for a range of audio-visual equipment.

Parent and citizen organisations

In Australia, where all government schools are administered by central departments, there is limited opportunity for local participation in education. Public interest is expressed through parents committees or organisations of parents and other citizens interested in supporting their local school. The Education Acts of all States provide for the formation of groups of this type, whose aims are to promote an interest in the school by bringing parents and teaching staff together, to help provide supplementary teaching aids and recreation materials, to foster the regular attendance of children at school, and to help find accommodation for teachers. In several States the general maintenance of school buildings, equipment and grounds is a statutory responsibility of the parent groups, costs being covered by government grants. Lunch canteen services at local schools are maintained by groups in some States. Parent groups have established school children's insurance schemes, operated through State Government insurance offices or private insurance companies. These schemes cover accidents to children which occur between the time of leaving home for school and returning home by the usual direct route.

State-wide councils of federations of parent groups are associated in a federal body, the Australian Council of School Organisations.

Research

All State education departments have branches undertaking research directed towards departmental activities. The work of the research branches is concerned with such matters as curriculum content, new teaching methods, evaluation procedures, wastage rates, and education statistics. Education research is also carried out by the faculties and departments of education in the universities, the Commonwealth Department of Education and Science and the Australian Council for Educational Research. Information on current research projects is summarised below:

The 1961 Study. Recently the Department of Education and Science in co-operation with the Australian Vice-Chancellors Committee completed a longitudinal study of the progress of Australian bachelor degree students who were new first degree entrants to Australian universities in 1961.

Tertiary Education Entrance Project. A set of aptitude tests for improving methods of selection of students for tertiary studies is being developed by the Australian Council for Educational Research, supported by the Commonwealth through the Department of Education and Science.

Curriculum development

While State education departments are responsible for the development of the curricula followed in their schools, the Commonwealth is prepared to consider support for proposals in the field of curriculum development if they are put forward by more than one State. Two such proposals are at present receiving Commonwealth financial support. They are:

Australian Science Education Project. This project, which developed out of the Junior Secondary Science Project initiated by the Victorian, South Australian and Tasmanian Governments has been extended to all States. The Commonwealth will contribute \$750,000 and the States \$450,000 over the five-year period commencing in 1969.

National Committee on Social Sciences Teaching. This Committee was established in 1970 as a joint project between the Commonwealth and the States to examine goals and suggested desirable content for inclusion in the new social science curricula to suit Australian conditions. The Chairman of the Committee is Professor W. F. Connell, Professor of Education of the University of Sydney.

Asian Studies. The findings of the Advisory Committee on the teaching of Asian Languages and Cultures, a Committee set up by the Commonwealth in 1969, were made public in March 1971 by the tabling of the Committee's report in Parliament.

Numbers of schools, teachers and pupils

The statistics which follow relate generally to schools providing education according to the primary or secondary school curricula of the various State education departments, or both, whether provided in government or non-government schools. Junior technical schools, correspondence schools, and schools in institutional homes, hospitals and similar establishments are included. Institutions providing only pre-school education, senior technical and agricultural colleges, evening schools, continuation classes, and institutions such as business colleges and coaching establishments are, as a rule, excluded.

School censuses are conducted annually at or about the beginning of August throughout all States and Territories of Australia. The numbers of pupils in the tables which follow refer to enrolments at the school census date. The numbers of schools and teachers refer to the position at dates which vary from State to State and in some instances from year to year. While it has not been possible to present all figures on a uniform basis between States, continuity of the figures for any one State over the period of years shown has been maintained as far as possible.

Schools, teachers and pupils

The numbers of government and non-government schools, teachers and pupils in 1970 and earlier years are shown in the following tables. For more detailed statistics, see *Schools* bulletin (reference No. 13.5).

NUMBERS OF SCHOOLS, TEACHERS AND PUPILS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1970

	Non-government schools							Total	All schools
	Government schools	Denominational					Other		
		Church of England	Methodist (a)	Presbyterian (a)	Roman Catholic	Undenominational			
SCHOOLS									
New South Wales	2,415	34	6	12	628	25	85	790	3,205
Victoria	2,215	35	4	11	487	28	16	581	2,796
Queensland	1,236	14	..	4	294	18	12	342	1,578
South Australia	651	10	4	2	124	23	7	170	821
Western Australia	589	8	3	2	168	10	5	196	785
Tasmania	238	4	1	2	50	7	1	65	303
Northern Territory	79	..	1	..	11	1	1	14	93
Australian Capital Territory	47	3	..	..	19	..	..	22	69
Australia—1970	7,470	108	19	33	1,781	112	127	2,180	9,650
1969	7,549	110	18	34	1,784	107	121	2,174	9,723
1968	7,636	113	20	38	1,807	109	96	2,183	9,819
1967	7,698	113	20	38	1,818	105	92	2,186	9,884
1966	7,770	114	20	39	1,820	100	100	2,193	9,963
TEACHERS(b)									
New South Wales	34,595	953	193	387	6,520	138	527	8,778	43,373
Victoria	27,335	1,126	263	545	4,775	458	266	7,433	34,768
Queensland	12,250	320	..	51	2,539	204	235	3,349	15,599
South Australia	9,600	253	121	88	915	119	108	1,604	11,204
Western Australia	6,949	273	120	98	1,096	50	12	1,649	8,598
Tasmania	3,609	124	25	45	386	80	6	666	4,275
Northern Territory	680	..	19	..	70	8	1	(c)98	778
Australian Capital Territory	1,067	103	..	..	276	..	..	379	1,446
Australia—1970	96,085	3,152	741	1,214	16,577	1,057	1,215	23,956	120,041
1969	91,888	3,006	711	1,165	15,413	989	1,139	22,423	114,311
1968	87,559	2,942	693	1,171	15,002	964	1,063	21,835	109,394
1967	82,481	2,817	682	1,140	14,118	887	1,049	20,693	103,174
1966	78,194	2,727	659	1,111	13,395	855	1,055	19,802	97,996
PUPILS (SCHOOL CENSUS)									
New South Wales	760,092	14,288	3,095	5,790	189,340	2,233	6,787	221,533	981,625
Victoria	585,440	17,039	4,243	8,317	150,602	7,029	3,798	191,028	776,468
Queensland	295,543	5,575	..	984	74,768	3,996	4,533	89,856	385,399
South Australia	228,788	4,028	2,287	1,547	25,816	2,373	1,336	37,387	266,175
Western Australia	174,024	4,102	1,903	1,444	33,270	914	311	41,944	215,968
Tasmania(d)	77,447	1,757	315	582	10,316	1,261	168	14,399	91,846
Northern Territory	13,790	..	423	..	2,082	201	22	2,728	16,518
Australian Capital Territory	25,053	1,526	..	..	7,655	..	..	9,181	34,234
Australia—1970	2,160,177	48,315	12,266	18,664	493,849	18,007	16,955	608,056	2,768,233
1969	2,113,975	47,376	12,086	18,623	491,207	17,164	16,530	602,986	2,716,961
1968	2,054,808	46,741	12,055	18,634	490,818	16,704	15,951	600,903	2,655,711
1967	1,990,940	45,944	11,764	18,487	486,738	15,925	15,823	594,681	2,585,621
1966	1,918,816	44,210	11,405	17,954	478,422	15,347	15,644	582,982	2,501,798

(a) Excludes schools conducted in Queensland by the Presbyterian and Methodist Schools Association. These are included in 'Other denominational'. (b) Excludes teachers-in-training generally. Figures are full-time teachers plus part-time teachers expressed in equivalent full-time units. For basis of calculating equivalent full-time units, see footnote (b) to next table. (c) Excludes unqualified teachers and teaching assistants at mission schools. (d) Includes pupils in pre-school grades at normal schools, but excludes pupils at pre-schools not attached to ordinary schools.

NUMBERS OF TEACHERS: STATES AND TERRITORIES, 1970(a)

	Government schools			Non-government schools			All schools		
	Part-time		Equiv. f.t.u. (b)	Part-time		Equiv. f.t.u. (b)	Part-time		Equiv. f.t.u. (b)
	Full-time	No.		Full-time	No.		Full-time	No.	
New South Wales	33,468	2,285	1,127	8,135	(c)2,153	643	41,603	4,438	1,770
Victoria	25,694	(d)3,226	(d)1,641	6,910	1,806	523	32,604	5,032	2,164
Queensland	12,250	1		3,167	720	182	15,417	721	182
South Australia	9,318	614	282	1,418	529	186	10,736	1,143	468
Western Australia	6,787	345	162	1,520	439	129	8,307	784	291
Tasmania	3,521	280	88	593	204	73	4,114	484	161
Northern Territory	671	15	9	(e)97	(e)5	(e)1	768	20	10
Australian Capital Territory	1,016	85	51	(c)347	107	32	1,363	192	83
Australia—1970	92,725	6,851	3,360	22,187	5,963	1,769	114,912	12,814	5,129
1969	89,086	5,867	2,802	20,956	5,000	1,467	110,042	10,867	4,269
1968	84,922	5,579	2,637	20,467	5,052	1,368	105,389	10,631	4,005
1967	80,199	5,203	2,282	19,468	4,828	1,225	99,667	10,031	3,507
1966	75,977	4,921	2,217	18,656	4,422	1,146	94,633	9,343	3,363

(a) Excludes teachers-in-training generally. (b) The methods used for calculating equivalent full-time units of part-time teaching vary from State to State, between government and non-government schools, and between primary and secondary schools within States. For most schools the information is based on either the total hours worked or total number of class periods taken in a week by part-time teachers, in relation to the normal hours worked or periods taken by full-time teachers. (c) Visiting teachers who attend more than one school are counted as part-time in each school. (d) If a full-time teacher teaches both senior and junior technical school pupils, he is counted as part-time in these statistics (which include junior technical, but not senior technical schools), if his teaching load in the junior school is less than 75 per cent. (e) Excludes unqualified teachers and teaching assistants at mission schools.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY SEX, STATES AND TERRITORIES, 1970 (School census enrolment)

	Government schools			Non-government schools			All schools		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
New South Wales	396,867	363,225	760,092	111,716	109,817	221,533	508,583	473,042	981,625
Victoria	308,199	277,241	585,440	93,451	97,577	191,028	401,650	374,818	776,468
Queensland	154,326	141,217	295,543	45,176	44,680	89,856	199,502	185,897	385,399
South Australia	119,505	109,283	228,788	18,546	18,841	37,387	138,051	128,124	266,175
Western Australia	91,698	82,326	174,024	19,959	21,985	41,944	111,657	104,311	215,968
Tasmania	40,321	37,126	77,447	6,918	7,481	14,399	47,239	44,607	91,846
Northern Territory	7,080	6,710	13,790	1,356	1,372	2,728	8,436	8,082	16,518
Australian Capital Territory	12,929	12,124	25,053	4,813	4,368	9,181	17,742	16,492	34,234
Australia—1970	1,130,925	1,029,252	2,160,177	301,935	306,121	608,056	1,432,860	1,335,373	2,768,233
1969	1,107,089	1,006,886	2,113,975	299,095	303,891	602,986	1,406,184	1,310,777	2,716,961
1968	1,077,012	977,796	2,054,808	297,433	303,470	600,903	1,374,445	1,281,266	2,655,711
1967	1,044,464	946,476	1,990,940	294,045	300,636	594,681	1,338,509	1,247,112	2,585,621
1966	1,006,742	912,074	1,918,816	287,647	295,335	582,982	1,294,389	1,207,409	2,501,798

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY AGE AND SEX AUSTRALIA, 1970 (School census enrolment)

Age last birthday (years)	Government schools			Non-government schools			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Under 6	80,049	75,578	155,627	20,148	20,278	40,426	100,197	95,856	196,053
6	101,056	94,216	195,272	24,708	24,588	49,296	125,764	118,804	244,568
7	103,049	96,514	199,563	25,334	25,761	51,095	128,383	122,275	250,658
8	104,136	97,483	201,619	25,912	26,183	52,095	130,048	123,666	253,714
9	103,915	96,881	200,796	25,808	26,455	52,263	129,723	123,336	253,059
10	101,200	94,407	195,607	25,733	26,436	52,169	126,933	120,843	247,776
11	99,650	93,314	192,964	26,060	26,463	52,523	125,710	119,777	245,487
12	96,622	89,584	186,206	26,214	27,588	53,802	122,836	117,172	240,008
13	94,479	86,842	181,321	24,903	27,046	51,949	119,382	113,888	233,270
14	92,917	83,496	176,413	24,121	26,052	50,173	117,038	109,548	226,586
15	72,868	63,379	136,247	21,736	23,054	44,790	94,604	86,433	181,037
16	46,343	36,108	82,451	16,031	15,507	31,538	62,374	51,615	113,989
17	25,129	17,105	42,234	11,246	8,895	20,141	36,375	26,000	62,375
18 and over	9,512	4,345	13,857	3,981	1,815	5,796	13,493	6,160	19,653
Total	1,130,925	1,029,252	2,160,177	301,935	306,121	608,056	1,432,860	1,335,373	2,768,233

SCHOOLS: PUPILS, BY AGE, STATES AND TERRITORIES, 1970

(School census enrolment)

Age last birthday (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Under 6	77,038	61,113	19,186	19,480	8,426	5,698	2,080	3,032	196,053
6	85,077	67,578	36,041	22,654	20,189	8,068	1,831	3,130	244,568
7	87,806	68,569	36,710	23,179	21,198	8,319	1,800	3,077	250,658
8	89,341	68,983	37,433	23,609	20,939	8,660	1,606	3,143	253,714
9	88,335	68,627	37,342	24,075	21,287	8,718	1,638	3,037	253,059
10	86,098	67,228	36,820	23,924	20,722	8,553	1,499	2,932	247,776
11	85,621	67,301	35,987	23,549	20,269	8,492	1,370	2,898	245,487
12	84,574	64,605	35,456	22,863	20,239	8,211	1,291	2,769	240,008
13	80,970	63,998	34,450	22,881	19,594	7,791	1,091	2,495	233,270
14	78,163	62,573	33,046	22,381	19,128	7,868	992	2,435	226,586
15	63,783	52,574	23,551	18,314	13,650	6,324	710	2,131	181,037
16	40,660	37,288	11,918	12,294	6,621	3,221	423	1,564	113,989
17	24,933	19,957	5,917	5,422	3,356	1,511	148	1,131	62,375
18 and over	9,226	6,074	1,542	1,550	350	412	39	460	19,653
Total	981,625	776,468	385,399	266,175	215,968	91,846	16,518	34,234	2,768,233

Grades of pupils

The classification of pupils as primary and secondary and the allocation of primary and secondary pupils to grades differs from State to State because of differences in the curricula and the organisation of schools and grades. Current figures of pupils in grades are shown in the *Schools* bulletin (reference No. 13.5) and the annual reports of the State Ministers of Education. See also Plate 35 page 635.

Pre-school education

Pre-school centres were first established in the Australian mainland states by voluntary organisations and a large number are still supported and supervised by them. The organisations include kindergarten unions, day nursery and creche associations, pre-school associations and denominational kindergartens. All now receive financial assistance from State governments but the amounts granted vary considerably from State to State. Other pre-schools are subsidised directly by States. In Tasmania pre-school teachers are employed by the State Education Department and in the internal Territories by the Commonwealth Department of Education and Science; buildings are also provided in the Territories. In all cases parents assist in the provision of equipment.

Pre-school centres are situated in city and country areas and programmes are adapted to meet the needs of the children attending. A typical pre-school centre provides half-day sessions for two-groups of children. Active parent participation in the running of the centres is encouraged. A limited number of creches and day nurseries provide full-day care in closely settled areas, and there is an increasing demand for care for children of working mothers, met in part by privately run centres of varying standards. In a few cities occasional care is available and there are a few residential centres.

The Australian Pre-School Association is a national body comprising all the voluntary organisations who have as their main concern the welfare and education of children of pre-school age. It co-ordinates and strengthens pre-school work, sets standards, and is responsible for the administration and supervision of the six Lady Gowrie Centres established by the Commonwealth for child-study, research, and demonstration.

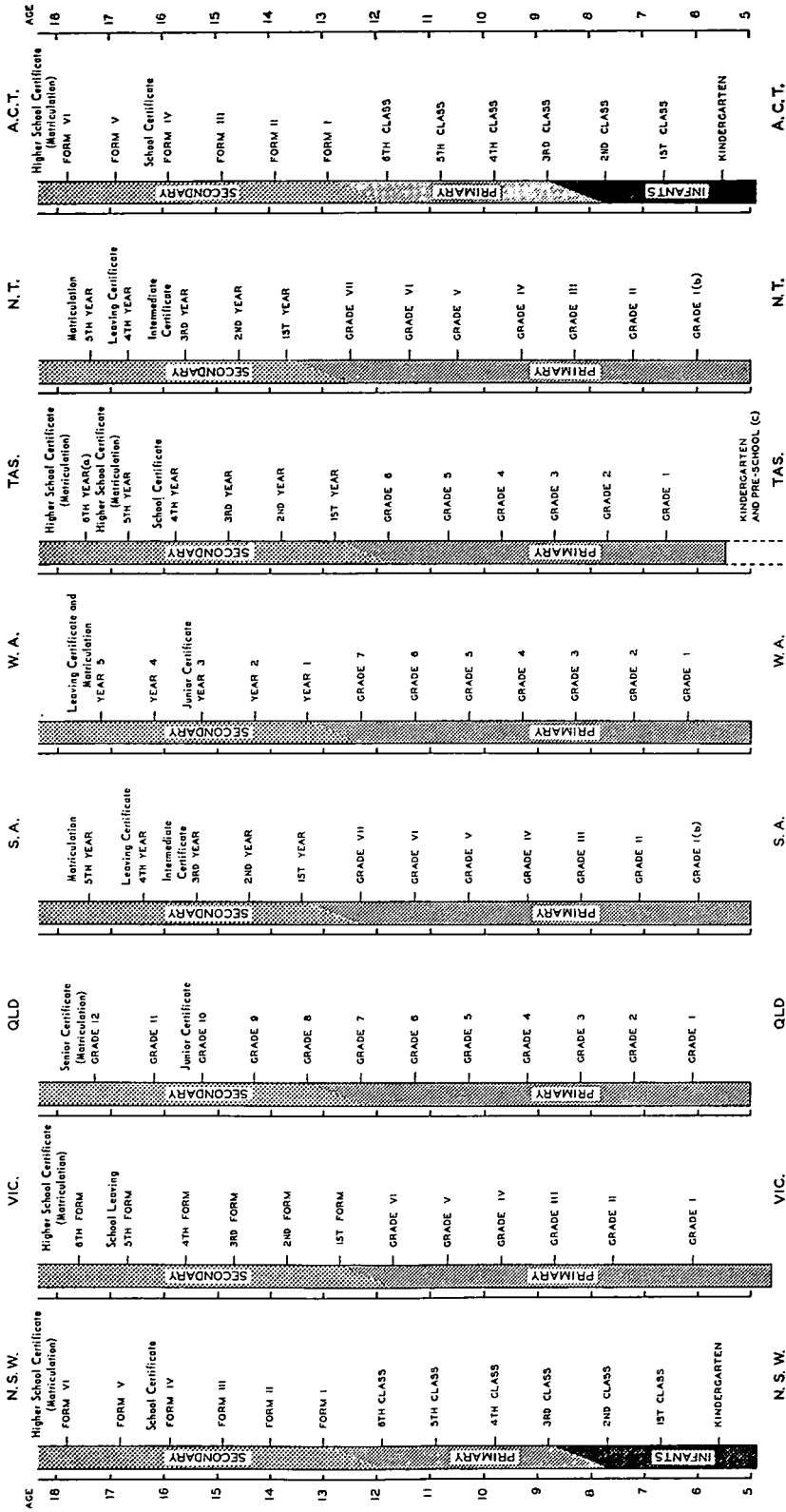
Radio and television bring some experience of pre-school education within the reach of practically every pre-school child in Australia. The Australian Broadcasting Commission pioneered the programme 'Kindergarten of the Air', a twenty-five minute session, broadcast throughout the country from Monday to Friday. This session is designed to reach children in isolated areas. The half-hour television programme 'Play-School' is also available each week-day to children of kindergarten age in State capital cities and some country areas.

Post-school study courses

As part of the quarterly population survey (see Chapter 21, Employment and Unemployment) a survey was conducted in all States and Territories in August 1968 to obtain estimates of persons enrolled for courses of study or training outside school. The results of the survey supplement data about enrolments collected from schools and other institutions, and present a general indication of post-school education. For details of the survey see Year Book No. 56, pages 640-44.

GRADES AND EXAMINATIONS IN THE PRIMARY AND SECONDARY SCHOOL SYSTEMS IN EACH STATE AND TERRITORY, 1970

The grade terminology follows, as nearly as possible, that used in government primary and high schools in each State in 1970. It is not necessarily used in all types of schools. The grades have been written in to agree with the age-scale shown on the diagram, in order to indicate differences in age-grade patterns between States. However, age-grade information is not precise enough to allow determination of accurate average age of pupils in each grade, and the age indications are therefore only approximate. The diagram should not be taken as a comparison of academic standards of grades between States. The columns of the diagram have been closed with a line where pupils are not accepted into government schools below the age shown. For a more detailed presentation of the systems operating in each State, reference should be made to diagrams etc. appearing in the annual reports of State Education Departments.



(a) In Tasmania many pupils study for the Higher School Certificate over a two-year period.
 (b) Preparatory grades are attached to some schools in South Australia and the Northern Territory.
 (c) In Tasmania, many children attend two years pre-school, one year kindergarten grade, or one year of both, before entering grade 1.

Universities

Applicants for enrolment in Australian universities are required to have passed the matriculation examination in one of the States after five or six years of secondary education. Each university has its own regulations for matriculation, specifying the number and combination of subjects to be passed or the level of performance required. Students entering the universities have the choice of undergraduate study in various faculties. All universities also provide post-graduate courses of study.

There are fifteen universities in Australia. The James Cook University of North Queensland, which was formerly the University College of Townsville, was raised to the status of a full university in 1970. Details of the courses offered by these institutions, together with background information on their teaching and research programmes, and a summary of general university development in recent years, is given in Year Book No. 55, pages 507-9.

The following tables show statistics of university staff, student enrolments, assisted students, degrees conferred, diplomas and certificates granted, income and expenditure. The first table gives summary statistics for each university and branch whereas the other tables provide State figures only. Reference should also be made to the annual publications *University Statistics, Parts I-III* for further details.

UNIVERSITIES: SUMMARY STUDENT AND STAFF STATISTICS FOR EACH UNIVERSITY AND BRANCH, 1970

	Students enrolled(a) for			All students	Teaching and research staff(b)		Other staff	
	Higher degree courses	Bachelor degree courses	Non-degree courses		Full-time	Part-time(c)	Full-time	Part-time(d)
New South Wales—								
University of Sydney	2,393	13,059	1,119	16,571	996	1,283	2,161	44
University of New South Wales—								
Kensington	1,882	11,859	1,396	15,137	871	897	1,683	84
Wollongong University College	82	1,038	57	1,177	74	28	80	3
Broken Hill Division	6	85	9	100	14	9	25	2
Duntroon . . . . .	..	195	..	195	42	4	2	..
Jervis Bay . . . . .	..	20	..	20	(e)	(e)	(e)	(e)
Total, University of New South Wales	1,970	13,197	1,462	16,629	1,001	938	1,790	89
University of New England	265	4,546	566	5,377	336	78	692	47
University of Newcastle	252	2,689	138	3,079	192	168	210	8
Macquarie University	413	3,696	120	4,229	281	201	432	12
Total, New South Wales	5,293	37,187	3,405	45,885	2,806	2,668	5,285	200
Victoria—								
University of Melbourne	1,650	11,576	1,500	14,726	923	1,097	1,765	35
Monash University	985	8,575	824	10,384	727	390	1,477	190
La Trobe University	184	2,154	181	2,519	228	109	414	91
Total, Victoria	2,819	22,305	2,505	27,629	1,878	1,596	3,656	316
Queensland—								
University of Queensland	956	14,607	810	16,373	909	809	1,766	34
James Cook University of North Queensland	93	1,104	14	1,211	114	76	194	6
Total, Queensland	1,049	15,711	824	17,584	1,023	885	1,960	40
South Australia—								
University of Adelaide	828	6,813	627	8,268	542	745	1,117	165
Flinders University	130	1,647	131	1,908	153	101	311	57
Total, South Australia	958	8,460	758	10,176	695	846	1,428	222
Western Australia—								
University of Western Australia	565	6,609	608	7,782	455	570	942	99
Tasmania—								
University of Tasmania	154	2,573	392	3,119	203	213	364	44
Australian Capital Territory—								
Australian National University—								
Institute of Advanced Studies	533	..	4	537	..	..	1,229	..
School of General Studies	172	3,682	227	4,081	307	56	355	..
Total, Australian Capital Territory	705	3,682	(f)216	(f)4,603	(g)311	(g)85	(h)2,403	(h)29
Total, All Universities	11,543	96,527	8,708	116,778	7,371	6,863	16,038	949

(a) Figures shown refer to net enrolments, i.e. gross enrolments adjusted for students enrolled for more than one course. If a student is enrolled for two or more courses at different levels, the adjustment is made against the lesser course. (b) Includes all staff with teaching functions but excludes research only staff. (c) Expressed as units of 100 teaching hours per annum. (d) Equivalent full-time units. (e) No university staff are at present attached to the R.A.N. College, Jervis Bay. (f) Adjusted for students enrolled at both the Institute and the School. (g) Includes 4 full-time and 29 part-time positions not allocated to either the Institute or the School. (h) Includes 819 full-time and 29 part-time positions not allocated to either the Institute or the School.

University teaching and research staff

UNIVERSITIES: TEACHING AND RESEARCH STAFF(a), 1970

	<i>Full-time teaching and research staff</i>							
	<i>Professors</i>	<i>Associate professors and readers</i>	<i>Senior lecturers and lecturers</i>	<i>Assistant lecturers, demonstrators, etc.(b)</i>	<i>Total</i>	<i>Part-time teaching staff(c)</i>	<i>Full-time research only staff</i>	<i>Part-time research only staff(d)</i>
New South Wales	296	267	1,563	680	2,806	2,668	637	19
Victoria	201	166	1,060	451	1,878	1,596	380	31
Queensland	86	107	541	289	1,023	885	182	13
South Australia	93	68	417	117	695	846	274	14
Western Australia	54	50	260	91	455	570	143	3
Tasmania	31	22	107	43	203	213	31	7
Australian Capital Territory	38	35	184	54	311	85	976	..
Australia—1970	799	715	4,132	1,725	7,371	6,863	2,623	86
1969	777	638	4,011	1,593	7,019	6,425	2,435	89
1968	721	581	3,706	1,479	6,487	6,197	2,367	82
1967	663	547	3,497	1,337	6,044	5,378	2,233	78
1966	615	487	3,297	1,261	5,660	5,641	2,046	82

(a) Occupied positions. Teaching and research staff includes all staff with teaching functions, but excludes research only staff which is shown separately. (b) Includes tutors and teaching fellows. (c) Expressed in units of 100 teaching hours per annum. (d) In equivalent full-time units of 35 hours per week.

University students enrolled

UNIVERSITIES: STUDENTS ENROLLED(a), 1970

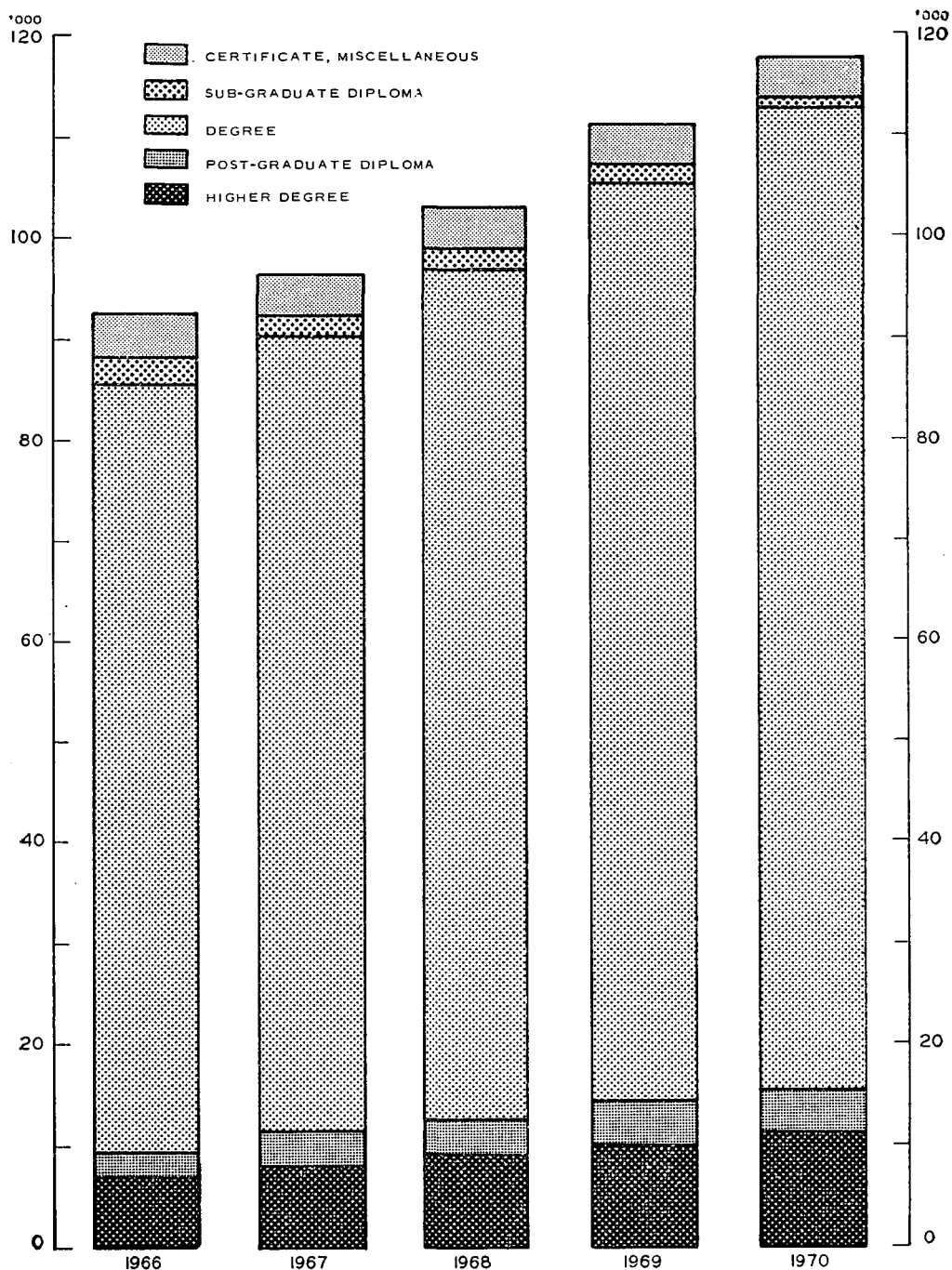
	<i>Degree courses</i>		<i>Diploma courses</i>		<i>Certificate courses</i>	<i>Other courses (b)</i>	<i>Adjusted total(c)</i>
	<i>Higher degree</i>	<i>Bachelor degree</i>	<i>Post-graduate</i>	<i>Sub-graduate</i>			
New South Wales	5,297	37,286	1,910	46	301	1,270	45,885
Victoria	2,821	22,995	1,010	663	..	983	27,629
Queensland	1,049	15,711	309	101	37	377	17,584
South Australia	958	8,490	402	165	10	227	10,176
Western Australia	565	6,620	355	..	..	265	7,782
Tasmania	154	2,573	173	15	31	178	3,119
Australian Capital Territory	705	3,682	..	..	..	231	4,603
Australia 1970	11,549	97,357	4,159	990	379	3,531	116,778
1969	10,564	90,738	4,229	1,204	635	3,618	109,662
1968	9,230	84,317	3,596	1,625	459	3,662	101,537
1967	8,562	78,825	3,075	2,093	495	3,555	95,380
1966	6,995	76,453	2,472	2,625	267	3,556	91,291

(a) Figures shown refer to gross enrolments, i.e. students enrolled for two or more courses are included in each course for which they are enrolled. (b) Includes post-doctoral courses, master preliminary courses and students enrolled in one or more subjects of a normal course without having been admitted to the course as a whole. Prior to 1968 some enrolments for master preliminary were included in higher degree. (c) Adjusted for students enrolled for more than one course. Where course levels differ, the lesser course is adjusted.

Of the students enrolled in 1970, 81,847 were males and 34,931 were females.

UNIVERSITY STUDENTS ENROLLED: COURSES

AUSTRALIA, 1966 TO 1970



University students commencing courses

UNIVERSITIES: STUDENTS COMMENCING HIGHER DOCTOR, PH.D. MASTER AND BACHELOR DEGREE COURSES FOR THE FIRST TIME IN ANY AUSTRALIAN UNIVERSITY, 1970(a)

	<i>Higher doctor degree courses</i>	<i>Ph.D. degree courses</i>	<i>Master degree courses</i>	<i>Bachelor degree courses</i>
New South Wales	8	292	1,217	10,610
Victoria(b) . . . . .	..	107	295	6,048
Queensland	14	118	179	3,718
South Australia	5	87	143	2,045
Western Australia . . . . .	..	81	90	1,982
Tasmania . . . . .	..	17	13	802
Australian Capital Territory . . . . .	..	154	53	1,100
Australia—1970	27	856	1,990	26,305
1969	26	849	1,974	25,518

(a) Figures shown refer to gross enrolments, i.e. students enrolled for two or more courses are included in each course for which they enrolled. (b) Figures for the University of Melbourne refer to students enrolling for the first time at that university.

Of students commencing courses in 1970, 19,438 were males and 9,740 were females.

Full-time and other university students by level of course

UNIVERSITIES: FULL-TIME AND OTHER STUDENTS ENROLLED BY LEVEL OF COURSE(a), 1970

	<i>Higher degree courses</i>			<i>Bachelor degree courses</i>		<i>Other courses and enrolments(b)</i>		<i>All students</i>		
	<i>Full-time</i>	<i>Staff(c)</i>	<i>Other</i>	<i>Full-time</i>	<i>Other</i>	<i>Full-time</i>	<i>Other</i>	<i>Full-time</i>	<i>Other</i>	<i>Total</i>
New South Wales	1,566	673	3,054	25,674	11,513	1,218	2,187	28,458	17,427	45,885
Victoria	1,410	535	874	17,669	4,636	1,019	1,486	20,098	7,531	27,629
Queensland	339	284	426	7,674	8,037	300	524	8,313	9,271	17,584
South Australia	538	135	285	6,201	2,259	297	461	7,036	3,140	10,176
Western Australia	255	66	244	4,553	2,056	158	450	4,966	2,816	7,782
Tasmania	79	32	43	2,054	519	122	270	2,255	864	3,119
Australian Capital Territory	556	70	79	1,938	1,744	25	191	2,519	2,084	4,603
Australia—1970	4,743	1,795	5,005	65,763	30,764	3,139	5,569	73,645	43,133	116,778
1969	4,444	1,665	4,426	60,325	29,563	3,579	5,660	68,348	41,314	109,662
1968	3,996	1,641	3,575	55,538	27,957	3,201	5,629	62,735	38,802	101,537
1967(d)	4,088	n.a.	4,474	51,841	26,984	3,347	5,887	58,325	37,055	95,380
1966(d)	3,354	n.a.	3,641	50,500	25,953	3,540	5,633	56,279	35,012	91,291

(a) Figures shown for 1968, 1969 and 1970 refer to net enrolments, i.e. gross enrolments adjusted for students enrolled for more than one course. If a student is enrolled for two or more courses at different levels, the adjustment is made against the lesser course. (b) Includes post-graduate diploma, sub-graduate diploma, certificate and other non-degree course enrolments. (c) Full-time university staff enrolled in higher degree courses. (d) Figures shown are gross enrolments except in the 'all student' columns.

Assistance to university students

The Commonwealth Government, through the Commonwealth Scholarships Board, grants undergraduate and post-graduate scholarships to university students. Details of the Commonwealth Scholarship Scheme are given on page 656. Commonwealth, State and local governments also award cadetships and other assistance to their employees. Foreign students are assisted by the Commonwealth Government under arrangements such as the Colombo Plan. The universities themselves grant exhibitions and scholarships as well as special assistance to teachers, etc.

UNIVERSITIES: SOURCE OF STUDENT ASSISTANCE 1970

	<i>Source of assistance</i>				<i>Type of course</i>		
	<i>Commonwealth Government</i>	<i>State Governments</i>	<i>Universities</i>	<i>Other</i>	<i>Adjusted total(a)</i>	<i>Higher degree</i>	
						<i>Higher degree</i>	<i>Other</i>
New South Wales	12,073	4,321	11,666	599	24,243	2,343	26,316
Victoria	10,188	5,828	7,978	308	19,390	1,497	22,805
Queensland	4,865	1,243	662	173	6,943	604	6,339
South Australia	3,480	2,335	1,314	216	7,211	735	6,610
Western Australia	2,361	3,009	226	133	5,718	370	5,359
Tasmania	929	570	106	113	1,627	102	1,616
Australian Capital Territory	1,112	392	688	62	2,110	597	1,657
Australia—1970	35,008	17,698	22,640	1,604	67,242	6,248	70,702
1969	32,425	16,134	22,400	1,983	63,110	6,269	66,673
1968	29,355	14,589	20,392	1,651	57,417	5,473	60,514
1967	27,320	15,499	16,204	1,813	48,728	5,145	55,691
1966	24,611	14,793	15,298	2,161	44,862	4,290	52,573

(a) Adjustment made for students assisted from more than one source. For 1968, 1969 and 1970, also adjusted for students who received assistance for a higher degree and another course.

University degrees conferred, etc.

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES AWARDED YEAR ENDED 30 JUNE 1970(a)

	<i>Degrees</i>				<i>Diplomas</i>		
	<i>Higher doctor</i>	<i>Ph.D.</i>	<i>Master</i>	<i>Bachelor</i>	<i>Post-graduate</i>	<i>Sub-graduate</i>	<i>Certificates</i>
New South Wales	11	193	470	4,590	1,259	17	329
Victoria	26	141	240	3,701	530	123	..
Queensland	6	57	68	1,918	177	58	159
South Australia	6	59	31	1,593	161	127	..
Western Australia	3	38	41	832	110	..	..
Tasmania . . . . .	..	13	14	427	87	3	62
Australian Capital Territory	2	108	24	423	..	..	..
Australia—1970	54	609	888	13,484	2,324	328	550
1969	53	490	811	13,360	2,237	406	673
1968	31	(13)475	(11)740	(15)11,576	1,939	(9)557	(24)471
1967	40	327	635	10,393	1,454	445	570
1966	47	336	565	9,019	1,304	499	331

(a) Figures for the years 1966 and 1967 refer to the year ended 31 July; those for 1968 onwards refer to the year ended 30 June. Figures included in both 1967 and 1968 are shown in brackets against 1968 figures.

University income and expenditure

UNIVERSITIES: INCOME, 1969
(\$'000)

	<i>Government grants(a)</i>		<i>Other income</i>			<i>Total income</i>
	<i>Cwth Government grants</i>	<i>State Government grants</i>	<i>Donations and endowments(b)</i>	<i>Student fees(c)</i>	<i>Other income</i>	
TOTAL INCOME						
New South Wales	27,441	32,831	5,049	8,003	4,196	77,520
Victoria	21,784	25,626	2,210	6,724	2,846	59,191
Queensland	7,223	8,672	2,267	3,428	707	22,297
South Australia	6,339	7,479	594	1,655	930	16,997
Western Australia	3,924	5,872	936	1,658	885	13,276
Tasmania	2,540	2,805	104	686	220	6,353
Australian Capital Territory	24,636	..	623	671	1,576	27,506
Australia—1969	93,887	83,285	11,784	22,825	11,359	223,140
1968	88,788	72,848	11,984	20,919	9,749	204,289
1967	79,872	64,304	10,461	19,145	8,597	182,379
1966	71,012	65,509	10,781	16,653	7,053	171,008
1965	64,537	56,993	9,885	14,869	5,895	152,178

(a) Includes funds expended by various government departments and other bodies in respect of universities but not controlled by the universities. (b) In the case of endowments, only income from property and other investment of these endowments is included. The treatment of donations depends on the terms of the gift, etc. When the capital sum is specified to be expended over several years, only the portion of the capital sum allocated to each year is shown as income in that year, but if the capital sum is available for spending without limitation as to time, the full amount is recorded as income in the year it is received, irrespective of whether it is spent in that year or not. The capital value of land and buildings donated to the universities is not recorded as income, unless these properties are sold, in which case the amounts realised are included.

(c) Excludes fees collected on behalf of student unions, adult education fees, ad hoc course fees and public examination fees.

UNIVERSITIES: EXPENDITURE, 1969
(\$'000)

	<i>Teaching and research</i>	<i>Administration and general overhead</i>	<i>Libraries</i>	<i>Buildings, premises, grounds</i>	<i>Sundry auxiliary expenditure</i>	<i>Total expenditure</i>
	New South Wales	42,479	6,758	3,402	16,620	4,238	73,496
Victoria	29,456	4,539	2,945	15,498	3,050	55,488
Queensland	14,516	1,631	1,151	3,943	839	22,080
South Australia	11,710	1,295	1,059	2,910	768	17,743
Western Australia	7,184	881	554	2,121	1,007	11,747
Tasmania	3,327	452	335	1,913	201	6,228
Australian Capital Territory	16,134	2,116	930	5,129	1,943	26,250
Australia—1969	124,806	17,672	10,375	48,134	12,046	213,034
1968	119,394	15,563	9,129	51,823	11,737	207,645
1967	106,386	13,298	7,915	48,061	9,056	184,714
1966	93,410	11,915	6,857	42,498	7,779	162,459
1965	83,256	10,159	5,830	43,976	6,526	149,747

Colleges of advanced education

The Committee on the Future of Tertiary Education in Australia recommended that interim capital grants be made by both the States and the Commonwealth to twelve specified institutions in five States during 1965-66 preliminary to an arrangement for the expansion and development of tertiary education outside the universities. This recommendation was accepted by all governments, and the Commonwealth established the Commonwealth Advisory Committee on Advanced Education to advise it on the continued development of the colleges which provide training with a vocational emphasis, as distinct from the academic education provided by the universities.

In some States the colleges are being developed from existing technological institutions, but new colleges are also being established. Many colleges cater for a number of vocations in fields such as accountancy, architecture, art, applied chemistry, building, business management, data processing,

engineering, librarianship, medical laboratory technology, metallurgy, nutrition, pharmacy, and textile sciences. Provision has been made for teacher education to be conducted in a number of these multi-purpose colleges. Other colleges are specialist institutions, such as agricultural colleges, art schools, conservatoria of music, schools of physiotherapy and occupational therapy, and colleges offering courses in advanced nursing administration, domestic science, forestry and horticulture.

Administrative changes are taking place in the States to co-ordinate the activities of colleges of advanced education. In New South Wales, an Advanced Education Board has been established; in Victoria, the co-ordinating powers of the Victoria Institute of Colleges have been strengthened; in Tasmania, a Council of Advanced Education has been created; and in Queensland, a Board of Advanced Education has been established. In some States provision is also being made for co-ordination of all tertiary education; notably through the Higher Education Authority in New South Wales, the Tertiary Education Commission in Western Australia, and the Joint Consultative Council in Tasmania.

Further information about the development of colleges of advanced education can be found in the reports of the Commonwealth Advisory Committee on Advanced Education: the First Report, 1967-69, and the Second Report, 1970-72. Details of the maximum Commonwealth grants for the development of the colleges are given on page 654.

The following statistics refer to colleges of advanced education recognised as such under the States Grants (Advanced Education) Acts. Advanced level courses are courses, or parts of courses, approved for grants under the above Acts or for which approval has been, or will be, sought by the State concerned.

COLLEGES OF ADVANCED EDUCATION: ENROLMENTS IN ADVANCED LEVEL COURSES, STATES AND A.C.T., 1970

	Full-time			Other			Total		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
New South Wales	711	1,170	1,881	2,692	137	2,829	3,403	1,307	4,710
Victoria	6,847	2,037	8,884	9,138	1,377	10,515	15,985	3,414	19,399
Queensland	1,198	186	1,384	1,658	66	1,724	2,856	252	3,108
South Australia	1,058	413	1,471	1,798	174	1,972	2,856	587	3,443
Western Australia	1,402	422	1,824	2,766	424	3,190	4,168	846	5,014
Tasmania	93	145	238	785	117	902	878	262	1,140
Australian Capital Territory	149	79	228	611	141	752	760	220	980
Australia	11,458	4,452	15,910	19,448	2,436	21,884	30,906	6,888	37,794

COLLEGES OF ADVANCED EDUCATION: TOTAL AND FIRST ENROLMENTS IN ADVANCED LEVEL COURSES, BY FIELD OF STUDY, AUSTRALIA, 1970

Field of study	Full-time			Other			Total		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
TOTAL ENROLMENTS									
Agriculture	858	46	904	43	2	45	901	48	949
Applied sciences	1,535	259	1,794	2,550	297	2,847	4,085	556	4,641
Art and design	864	1,027	1,891	646	510	1,156	1,510	1,537	3,047
Building, surveying, architecture, etc.	800	78	878	1,580	51	1,631	2,380	129	2,509
Business studies	2,252	534	2,786	8,445	588	9,033	10,697	1,122	11,819
Engineering and technology	4,161	22	4,183	5,214	18	5,232	9,375	40	9,415
Liberal studies	195	347	542	557	481	1,038	752	828	1,580
Music	100	306	406	8	8	16	108	314	422
Para-medical	562	1,530	2,092	405	481	886	967	2,011	2,978
Teacher education	131	303	434	..	..	..	131	303	434
Total enrolments	11,458	4,452	15,910	19,448	2,436	21,884	30,906	6,888	37,794
Number of students^(a)	11,446	4,445	15,891	19,403	2,433	21,836	30,849	6,878	37,727
FIRST ENROLMENTS									
Agriculture	512	24	536	16	1	17	528	25	553
Applied sciences	719	136	855	819	145	964	1,538	281	1,819
Art and design	442	474	916	193	157	350	635	631	1,266
Building, surveying, architecture, etc.	307	39	346	319	7	326	626	46	672
Business studies	1,149	293	1,442	3,350	220	3,570	4,499	513	5,012
Engineering and technology	1,488	12	1,500	1,243	13	1,256	2,731	25	2,756
Liberal studies	135	228	363	281	263	544	416	491	907
Music	34	121	155	3	6	9	37	127	164
Para-medical	234	750	984	137	165	302	371	915	1,286
Teacher education	67	175	242	..	..	..	67	175	242
Total first enrolments	5,087	2,252	7,339	6,361	977	7,338	11,448	3,229	14,677

(a) Adjusted for students enrolled for more than one advanced level course.

COLLEGES OF ADVANCED EDUCATION: TEACHING AND DIRECTLY SUPPORTING STAFF(a), STATES AND A.C.T., 1970

	Full-time staff			Part-time staff			Total level equivalent full-time units (Col. 3 + Col. 6) (7)
	Number Teaching (b) (1)	Directly support- ing(c) (2)	Advanced level work in equivalent full-time units(d) (3)	Number Teaching (e) (4)	Directly support- ing (5)	Advanced level work in equivalent full-time units(f) (6)	
New South Wales	300	82	332	477	26	96	428
Victoria	1,354	225	1,335	1,205	46	246	1,581
Queensland(g)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Australia	261	98	302	188	4	31	333
Western Australia	267	101	368	147	50	38	406
Tasmania	57	9	64	200	21	37	101
Australian Capital Territory	43	4	47	54	..	12	59

(a) Directly supporting staff are those who work in laboratories, etc., and, whilst not teaching, form an integral part of the teaching services. (b) Includes the following numbers of teachers engaged in teaching both advanced level and other courses: New South Wales, 86; Victoria, 573; South Australia, 109; and Tasmania, 9. (c) Comprises directly supporting staff wholly engaged in assisting teaching of advanced level courses, and others engaged in assisting teaching of both advanced level and other courses. (d) The estimated portion of time (expressed in terms of equivalent full-time staff) devoted to advanced level courses by full-time teaching and directly supporting staff engaged in both advanced level and other work. (e) Includes the following numbers of teachers engaged in teaching both advanced level and other courses: New South Wales, 78; Victoria, 174; South Australia, 33; Tasmania, 2. (f) The component of advanced level course work (in terms of equivalent full-time staff) undertaken by all part-time teaching and directly supporting staff engaged during the year. (g) The numbers of staff in Queensland are 307 full-time and 444 part-time.

Teacher education

State education departments recruit most prospective teachers for government service from students leaving schools after completion of secondary education. Each department offers training awards annually on the basis of academic merit and personal suitability. These awards cover the cost of a teacher training course (which may include university studies) and provide a living allowance. Students are usually required to enter into an agreement to serve for a specified number of years in the government schools of the State where they have trained. In some States intending teachers can obtain a scholarship at the first public secondary examination to enable them to complete teachers college entrance requirements.

The State education departments conduct teachers colleges to train teachers for government schools. These colleges are co-educational and, in the larger States, have been established in country areas as well as in cities. The principal and staff of the colleges are responsible to the Director-General of Education in the State concerned. Teacher education is now being conducted at Mitchell (Bathurst) and Canberra colleges of advanced education. Teachers colleges are also conducted by other organisations. For details of Commonwealth financial assistance to the States for building projects, see pages 662-3.

In 1970, there were 9 government teachers colleges in New South Wales, 13 in Victoria, 4 in Queensland, 5 in South Australia, 3 in Western Australia and 2 in Tasmania. Excluding kindergarten teachers colleges (see page 646) there were 5 private colleges in New South Wales, 5 in Victoria, 2 in Queensland, and 1 in the Australian Capital Territory. The Australian School of Pacific Administration in New South Wales also conducts teacher education courses.

Teachers for government schools

Training of teachers. Most teachers for government primary schools are trained in teachers colleges. Intending secondary school teachers either obtain a university degree with additional professional teaching training such as a Diploma in Education, a diploma or certificate from a teachers college or follow a secondary teaching course at a college of advanced education. Teachers of specialist subjects, such as music, art, manual arts, domestic science, and commercial subjects, receive from two to five years training which varies according to the institution concerned and the type of school in which the teacher is to serve. Where the specialist course is given at an institution other than the teachers college—e.g. at a university, college of advanced education, technical college, or conservatorium of music, students are generally required to attend teachers college or university lectures in education, and in some cases the specialist course is followed by a year of professional training. Courses designed to train physical education teachers are offered in universities in some States, and in at least one teachers college in every State.

Training for teachers of agricultural subjects in secondary schools consists of either an agricultural college diploma or a university degree course together with professional teaching training. Teachers of technical subjects in secondary schools may be trained in manual or industrial arts courses of two to four years duration, at teachers colleges, colleges of advanced education, technical colleges, or, in one State, at a university.

At several Australian universities, students wishing to take up teaching as a profession can receive their professional training along with the study of their teaching subjects as part of a first degree course. Courses of a similar nature are available at some colleges of advanced education where teacher education courses are integrated into the general teaching of the college.

The following table shows students undergoing teacher education courses in government and non-government colleges in 1970. The figures exclude enrolments for short refresher courses and summer schools.

ENROLMENTS IN TEACHER EDUCATION (a), BY PLACE OF ENROLMENT AND TYPE OF COURSE: STATES AND A.C.T., 1970

	Government colleges(b)(c)						Non-government colleges			
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	All States	Kindergarten	Other colleges	All
Enrolled at kindergarten teachers colleges	..	..	..	..	..	..	..	977	..	977
Enrolled at teachers college only—										
For primary teaching	3,190	4,896	2,248	1,752	1,193	435	13,714	..	1,619	15,333
For secondary teaching	1,229	2,360	804	490	93	85	5,061	..	210	5,271
Not classifiable as primary or secondary teaching	47	..	34	..	..	..	81	..	..	81
<i>Total</i>	<i>4,466</i>	<i>7,256</i>	<i>3,086</i>	<i>2,242</i>	<i>1,286</i>	<i>520</i>	<i>18,856</i>	..	<i>1,829</i>	<i>20,685</i>
Enrolled at teachers college and also enrolled at university—										
For primary teaching	..	76	..	286	52	..	414	..	61	475
For secondary teaching	4,108	5,068	758	1,340	846	..	12,120	..	56	12,176
<i>Total</i>	<i>4,108</i>	<i>5,144</i>	<i>758</i>	<i>1,626</i>	<i>898</i>	..	<i>12,534</i>	..	<i>117</i>	<i>12,651</i>
Also enrolled at college of advanced education—										
For primary teaching	..	..	..	..	57	..	57	..	4	61
For secondary teaching	501	82	115	432	301	22	1,453	..	2	1,455
<i>Total</i>	<i>501</i>	<i>82</i>	<i>115</i>	<i>432</i>	<i>358</i>	<i>22</i>	<i>1,510</i>	..	<i>6</i>	<i>1,516</i>
Also enrolled at another institution—										
For secondary teaching	..	520	..	101	12	..	633	..	..	633
Not enrolled at teachers college(d)—										
For primary teaching	388	..	..	..	..	60	448	..	..	448
For secondary teaching	2,336	..	..	..	..	538	2,874	..	..	2,874
Not classifiable as primary or secondary teaching	..	..	..	..	..	69	69	..	..	69
<i>Total</i>	<i>2,724</i>	..	..	..	..	<i>667</i>	<i>3,391</i>	..	..	<i>3,391</i>
Total enrolments—										
Departmental students(e)—										
1970	11,547	12,916	3,925	4,272	2,512	1,198	36,370	..	..	36,370
1969	9,994	11,526	3,621	3,783	2,249	1,124	32,297	..	..	32,297
Other students—										
1970	252	86	34	129	42	11	554	977	1,952	3,483
1969	295	88	22	135	39	8	587	877	1,584	3,048
All students—										
1970	11,799	13,002	3,959	4,401	2,554	1,209	36,924	977	1,952	39,853
1969	10,289	11,614	3,643	3,918	2,288	1,132	32,884	877	1,584	35,345

(a) Includes students enrolled at teachers colleges, whether or not they receive instruction at the college itself, and also departmental students (see footnote (d)) who are not enrolled at a teachers college. Students enrolled for courses specifically designed for practising teachers have been excluded, as have 184 non-award students enrolled in part-time courses at the Technical Teachers College, Victoria, and 203 technical teacher trainees in Victoria who are given one or two years industrial experience. (b) There are no government teachers colleges in the Northern Territory or the Australian Capital Territory. (c) Excludes students enrolled at the Australian School of Pacific Administration. In 1970 there were 36 students enrolled for primary teaching and 84 students for secondary teaching. (d) Departmental students enrolled at another institution, i.e. university or college of advanced education. (e) Departmental students are those students who have been awarded a State Education Department scholarship or fellowship and have entered into an agreement to teach for a specified period of teaching service after completion of their teacher education.

The following table shows departmental students enrolled in the first year of their course and also those enrolled in the final year of their course. The figures exclude enrolments in one year courses which are mainly extension courses for students who have qualified as teachers.

DEPARTMENTAL STUDENTS ENROLLED IN THE FIRST
AND IN THE FINAL YEAR OF COURSE, 1970

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia		
							Males	Females	Persons
Enrolled in the first year of a course	4,772	4,888	1,903	1,621	1,172	449	5,012	9,793	14,805
Engolled in the final year of a course	2,297	3,263	1,259	1,092	748	339	2,851	6,147	8,998

In-service training. In-service training in Australia is directed chiefly towards keeping teachers abreast of developments and adding to their basic training. In-service training usually takes the form of short courses held sometimes during vacations, sometimes during school-time or in the evening. In some States in-service courses for teachers in remote areas are provided by correspondence. In some States there are also in-service courses for special groups of teachers such as headmasters or teachers in one-teacher schools. In addition, district inspectors are responsible for organising short conferences of teachers, where professional topics are discussed. Education departments encourage teachers to pursue university courses and in some States pay the cost of courses undertaken by selected teachers.

Status of teachers. Most teachers in government schools are permanent public servants and have security of tenure, superannuation rights, and the right of appeal in matters of promotion. The centralised education systems and the general policy of providing fully trained teachers for both city and country areas mean that teachers are subject to transfer to any part of the State in which they serve.

Training of technical teachers

To preserve links with industry and trade practice, schemes have been developed for the recruitment of specialist tradesmen as teachers and for their training in educational method and teaching techniques. In Victoria, the Technical Teachers College provides training for students with appropriate diploma or trade qualifications and suitable industrial experience. In New South Wales, technical college lecturers and tradesmen-teachers receive an in-service course of teacher training in general education theory and teaching method, while correspondence courses and visiting lecturers assist the newly appointed tradesman-teacher in country colleges. Variations in this scheme are in operation in other States. Many technical teachers, principally of academic, commercial and domestic science subjects, hold trained teachers certificates from teachers colleges.

Training of non-government school teachers

Teachers for non-government schools receive their training in a number of ways. The Roman Catholic Church staffs both its primary and secondary schools as far as possible with members of religious orders. In recent years there has been an increase in the number of lay teachers being employed in Catholic schools, and training of students to become lay primary teachers has been instituted.

Other non-government schools tend to recruit their staff from teachers who have already obtained qualifications in Australia or overseas. In New South Wales and Victoria, non-government school authorities offer courses designed specially for teachers in their schools. Non-government schools also recruit university graduates, who are then given professional guidance by senior members of the school staff. Private students may enrol at government teachers colleges on payment of a fee, but the number of places available is limited. The Commonwealth Government provides financial assistance to the States for approved building projects provided that the colleges admit a number of private students. Some teachers destined for non-government schools train in this way.

The following table shows, for non-government teachers colleges, the number of students enrolled, and the number in the final year of their courses:

NON-GOVERNMENT TEACHERS COLLEGES: ENROLMENTS(a), AUSTRALIA, 1970

	Enrolments			Students in final year of course		
	Males	Females	Persons	Males	Females	Persons
For primary teaching	225	1,459	1,684	74	496	570
For secondary teaching	141	128	269	27	26	53
<i>Total</i>	<i>366</i>	<i>1,587</i>	<i>1,953</i>	<i>101</i>	<i>522</i>	<i>623</i>

(a) These figures include students taking university degree courses whether instruction is given at the university or the college. They exclude students at kindergarten teachers colleges.

During vacations many non-government teachers attend in-service training courses organised by education departments. In recent years vacation courses have been provided by bodies other than education departments for teachers from both government and non-government schools. For example, an independent body, the Science Foundation for Physics within the University of Sydney, has provided such courses for teachers of science in secondary schools in New South Wales.

Kindergarten teachers colleges

The kindergarten unions, which are non-government organisations, have established colleges providing three-year courses in all States except Tasmania, where an infant and pre-school course is provided by the Hobart Teachers College. The minimum entrance age is usually seventeen years and applicants with matriculation status are preferred. In New South Wales, the Sydney Day Nursery and Nursery Schools Association maintains a training college which provides a course for pre-school and kindergarten teachers. These colleges provide full-time diploma courses which are similar in content and standards. Teachers are trained for work with children between the ages of two and seven years.

In 1970 there were 977 students enrolled for diploma courses at kindergarten teachers colleges, of whom 278 were in their final year. There are no male students enrolled at kindergarten teachers colleges.

The Commonwealth Government provides financial assistance for pre-school teachers colleges. For details, see page 655.

Technical education

Australian technical colleges offer training in all the major industrial skills and in a wide variety of commercial, artistic and domestic occupations. The main types of courses are described in Year Book No. 55, pages 498 and 499.

Technical colleges in Queensland, South Australia, Western Australia, and Tasmania are administered by branches of the State education departments. In Western Australia and South Australia, the Institutes of Technology function as autonomous institutions. New South Wales has a separate State Department of Technical Education. In Victoria there is a dual system with a number of the older colleges controlled by their own 'councils' in addition to government-controlled colleges administered by the Technical Education Branch of the Education Department. The council-controlled colleges receive government grants-in-aid. The diploma awarding schools or sections of technical institutions are in process of being separated from the trade, certificate and other sections of technical education, and of being developed as colleges of advanced education, and are now receiving Commonwealth financial assistance.

The numbers of colleges, teachers and enrolments in each State and Territory during 1969, and for Australia for the period 1965 to 1969 are given in the following table. The statistics include senior technical schools and colleges, institutes of technology and colleges of advanced education providing technical education, and their teachers and students at all levels. Whilst details for colleges of advanced education are included, the basis of collection differs from that used for advanced level courses statistics of which are given on pages 642-3.

TECHNICAL EDUCATION: COLLEGES, TEACHERS AND ENROLMENTS
STATES AND TERRITORIES, 1969

	Teachers				Students enrolled		
	Colleges	Full-time	Part-time	Total	Males	Females	Persons
New South Wales(a)(b)(c)(d)	58	1,889	4,349	6,238	114,414	56,285	170,699
Victoria(e)	90	4,614	1,992	6,606	n.a.	n.a.	74,162
Queensland(d)	18	637	1,160	1,797	25,486	4,161	29,647
South Australia(d)	26	674	1,467	2,141	n.a.	n.a.	42,252
Western Australia(d)(f)(g)	93	874	1,790	2,664	42,353	27,577	69,930
Tasmania	9	186	627	813	5,888	2,276	8,164
Northern Territory	2	9	114	123	1,405	1,819	3,224
Australia—1969	296	8,883	11,499	20,382	n.a.	n.a.	398,078
1968	275	9,041	11,746	20,787	n.a.	n.a.	388,824
1967	230	8,071	11,144	19,215	n.a.	n.a.	376,915
1966	226	7,475	10,836	18,311	n.a.	n.a.	375,003
1965	222	6,774	9,974	16,748	n.a.	n.a.	360,755

(a) Students enrolled represent gross enrolments, no allowance having been made for students enrolled in more than one course. (b) Includes Australian Capital Territory. Gross enrolments at Canberra Technical College were 6,105 in 1969; 5,956 in 1968; 5,578 in 1967; 4,855 in 1966; and 4,267 in 1965. (c) Figures include teachers and students at technical colleges and other centres, such as high school classrooms, in which technical classes are conducted. (d) Includes correspondence course teachers and students. (e) Prior to 1969 statistics of senior technical schools affiliated with the Victoria Institute of Colleges were included. Teachers include those at both senior and junior technical colleges. (f) Teachers represent number of teaching positions. (g) Country extension centres are now counted separately.

Agricultural and forestry education

Agricultural faculties have been established in universities in all States. Seven provide degree courses in agricultural science, one in rural science, one in wool and pastoral sciences, one in agricultural economics and three in veterinary science. Besides undergraduate courses, these faculties collectively provide a wide range of post-graduate diploma courses as well as facilities for training for higher degrees and doctorates.

At least one government agricultural college in each State, except Tasmania, is a college of advanced education. The primary roles of these colleges is now to train students for professional extension work or technology roles in the agricultural services. Other colleges which aim to teach the principles and practices of agriculture and farm management to those intending to take up farming as a career, are being developed in New South Wales, Queensland, and Victoria. Tasmania's first agricultural college will commence at Hagley in 1973. It will be developed as a college of advanced education. The Marcus Oldham farm management college in Victoria is the only remaining independent institution of this type in Australia.

Training in forestry at undergraduate and post-graduate levels, is provided by a Department of Forestry in the Faculty of Science within the Australian National University's School of General Studies. A four-year degree course is offered, but the first year of this course may be undertaken, by arrangement, at any other university. At the Victorian School of Forestry, Creswick, a three-year diploma course can be taken.

State expenditure on agricultural and forestry education from Consolidated Revenue and certain special funds is shown on page 664.

Other education

Conservatoria of music, schools of art, etc.

In addition to the conservatoria of music which are attached to universities or which constitute separate colleges of advanced education, there is the Canberra School of Music which offers a four-year full-time diploma course of theoretical and practical studies. Some schools of art have been developed into colleges of advanced education or included as departments in such colleges, and offer courses in printing, sculpture, and design as well as in basic art.

Educational training in the defence services

Each of the three defence services maintains institutions for the training of officers. The Royal Australian Naval College, Jervis Bay, Australian Capital Territory, became an affiliated college of the University of New South Wales in 1968. Selected matriculated cadets complete first year degree

studies in science or engineering at the College, and subsequent years of degree studies at the University. The Royal Military College, Duntroon, Australian Capital Territory, became an affiliated college of the University of New South Wales in 1968. The Royal Australian Air Force Academy, Point Cook, Victoria, has evolved from the Royal Australian Air Force College, which was established in 1948 as a tertiary training centre to provide a professional education for permanent officers of the Air Force. It is affiliated with the University of Melbourne and has adopted that University's Bachelor of Science course. The Academy is also permitted to present students for higher degrees in science and the degree of Doctor of Philosophy. Students may also proceed to the University of Sydney to take a degree in aeronautical engineering. The Australian Staff College and the Royal Australian Air Force Staff College provide one year courses for officers. Educational training is also provided in the apprentice training schools conducted by each of the Defence Services, and in the Royal Australian Navy School for Junior Recruits. The Royal Australian Air Force School of Languages, Point Cook, Victoria, conducts courses in French and Asian languages. In 1970 there were 34 students enrolled, of whom 5 were Royal Australian Air Force personnel.

The following table shows the number of officers, officer cadets and other ranks enrolled in the training establishments mentioned above.

**SERVICE ESTABLISHMENTS PROVIDING EDUCATIONAL TRAINING
AUSTRALIA, 1970**

<i>Establishment</i>	<i>Enrolments</i>	<i>New entrants during year</i>	<i>Number completing course during year</i>
OFFICERS AND OFFICER CADETS (a)			
Staff Colleges—			
Australian Staff College	70	70	70
Royal Australian Air Force Staff College	30	30	30
Officer cadets—			
Royal Australian Navy—			
Royal Naval College	100	26	19
H.M.A.S. <i>Leeuwin</i>	2	..	2
Royal Military College	264	n.a.	n.a.
Royal Australian Air Force—			
R.A.A.F. Academy	88	29	13
R.A.A.F. Diploma Squadron	157	49	20
APPRENTICES AND OTHER RECRUITS (b)			
Royal Australian Navy—			
Naval artificer apprentices	645	205	160
Junior recruits	770	770	556
Topmen scheme	72	72	61
Army Apprentice School	327	..	277
Royal Australian Air Force—			
School of Technical Training	249	127	137
School of Radio	85	51	35

(a) Includes 266 cadets enrolled for university courses, 3 enrolled at teachers college, and 157 enrolled at an institute of technology. (b) Includes 85 apprentices enrolled at a technical college or institute of technology.

The Australian School of Pacific Administration

The Australian School of Pacific Administration, controlled by the Department of Territories, trains students in the various aspects of service and administration in Commonwealth Territories, including teaching. In 1971, 80 trainee teachers were being trained for service in Papua-New Guinea, and 40 for the Northern Territory. In 1970 the school commenced courses in Local Government for Papuans and New Guineans.

Australian Administrative Staff College

Opened in 1957, the Australian Administrative Staff College is a private organisation working in close co-operation with government and other public bodies, the armed services, and the trade union movement. It was founded, and is owned, by a large group of leading Australian companies and has its permanent premises at Mount Eliza, near Melbourne. The College conducts residential courses for administrators to further the study of the problems which arise in managerial work.

Technical training by government departments

Although most needs of departments for trained staff are met by apprenticeship schemes and other technical college courses and by the universities, some departments provide training which is not available elsewhere. The most important field for which such training is provided is the training of telephone, telegraph, radio, and television technicians by the Postmaster-General's Department.

Migrant education

The Department of Immigration is responsible for the teaching of English to migrants as part of its integration programme. Advice about migrant education and teaching materials are provided by the Department of Education and Science, and the courses are arranged in conjunction with State education departments, colleges of advanced education and other approved educational bodies.

The Australian Government allocates funds to the Intergovernmental Committee for European Migration which, in Greece, Italy, Germany, and Austria, provides class and correspondence instruction for intending migrants to Australia. Courses are also being organised by the Department in Turkey and Yugoslavia. A recorded English language course is in use in Finland. The governments of Holland, Belgium and Spain assist with courses conducted in these countries. Many migrants, however, receive their first instruction in English from shipboard education officers.

The Department of Education and Science, the State education departments, and the Australian Broadcasting Commission co-operate in producing a radio/correspondence course in English. In May 1971 an experimental television programme was commenced.

Accelerated English courses for migrants with a professional background were introduced in 1969. A special course 'English for Migrants in Industry' has been prepared for use in factories and other places of employment.

Adult education

The term 'adult education' as used in Australia refers mainly to non-vocational educational and cultural activities for adults. While the nature of the recognised adult education authorities varies from State to State, their major activities have many common features. Regular courses of lectures are organised on such topics as literature, music, drama, international affairs, languages, and crafts. Some authorities also organise discussion groups, festivals and summer schools, and provide special services for groups in remote areas. In 1960 an Australian Association of Adult Education was formed, and its first annual conference was held in Adelaide in 1961. The Association handles matters pertaining to adult education at a national level and arranges liaison with similar bodies in other countries.

One of the first bodies active in the field of adult education in Australia was the Workers' Educational Association, which formed associations in all States in 1913. Its aims were to bring the universities into closer relationship with the community in general and to provide for higher education in civic and cultural subjects. These associations have been superseded by Adult Education Boards or Councils set up by the State governments in Victoria, Queensland, and Tasmania, and by the university in Western Australia. In the other two States, New South Wales and South Australia, the associations continue to co-operate with the universities in their extension work and are given direct grants by the governments concerned.

There are throughout Australia various other organisations which are active in the field of adult education. The World Education Fellowship, for example (*see* page 650), since its inception in Australia has been interested in adult education.

The organisation of adult education and some of the activities in each State are described in Year Book No. 53, pages 625 to 627.

Overseas students

Information about overseas students in Australia is available from three statistical series. The Department of Education and Science compiles statistics of *government sponsored overseas students* in Australia. The statistics of government sponsored students in institutions of higher learning are compiled from records held by that Department; those of other government sponsored students are estimates from information held by the Department of Foreign Affairs. In June 1970, there were 1,626 government sponsored overseas students in institutions of higher learning, and 681 other government sponsored students. These figures exclude some personnel of overseas armed forces taking courses at Australian Defence Colleges. Altogether, there were just over 2,300 government sponsored overseas students in Australia in 1970. Students under the Colombo Plan Technical Co-operation Scheme numbered 1,660. The largest numbers of government sponsored students came from Malaysia, Indonesia, Singapore, and Thailand.

The Department of Immigration prepares statistics of overseas students in Australia who have been admitted under the *Private Overseas Student Programme*. In 1970, there were 10,057 students (6,998 males and 3,059 females) undertaking courses or training in Australia under the Programme; 5,373 from Malaysia, 1,578 from Hong Kong, and 979 from Singapore. Courses chosen were mainly in engineering and building (1,706), economics and commerce (1,411), medicine (including para-medical) and dentistry (1,639), and general and school courses (2,775).

Overseas students enrolled for advanced level courses in Australian education institutions are enumerated annually. The institutions reported some 7,474 enrolments in 1970, about 5,863 at universities, 1,374 at colleges of advanced education and some 237 at other institutions.

Organisations associated with education

Australian Council for Educational Research

The Australian Council for Educational Research, a non-governmental body, is engaged on educational research in a wide variety of fields, ranging from tertiary to pre-school education. It conducts surveys and inquiries, makes grants to approved educational investigators, serves as a centre for disseminating educational information, provides training for research workers, and standardises and distributes educational and psychological tests for use in Australia. Although this council is an autonomous body, the Commonwealth and State governments give substantial financial support.

World Education Fellowship

The World Education Fellowship is a world organisation of parents, educators and other citizens interested in the development of new educational practices. It was founded in London in 1915 and spread to Australia at the time of a regional conference held here in 1937. There are now sections in each State. Its Australia-wide journal *New Horizons in Education* is published twice a year.

Australian College of Education

The Australian College of Education was formed in 1959. Its aims are to bring together leading teachers and administrators in every field of education, to raise the standard of the profession of education in Australia, to establish and proclaim fundamental educational values, and to recognise outstanding contributions to educational practice. Chapters of the College have been set up in all States, and several of the addresses and papers delivered at meetings of the College have been issued in published form.

Commonwealth activities in education

Fields of activity

Although education is primarily the responsibility of the States, the Commonwealth has instituted a number of measures of direct assistance to educational institutions and to students. It is responsible for public education in its own Territories and is engaged in educational activities incidental to its responsibilities in such areas as defence, external relations, immigration, and social services. Education in Commonwealth Territories is outlined in Chapter 29, The Territories of Australia; various schools and colleges for the Defence Services are referred to on page 647, and other activities which may be considered broadly as educational are referred to in the section on Broadcasting and Television in Chapter 12, Transport, Communication and Travel. Details of Commonwealth expenditure on education are provided on pages 659-64.

Department of Education and Science

The Commonwealth Department of Education and Science was created in December 1966. The Department, which absorbed the former Education Division of the Prime Minister's Department including the Commonwealth Office of Education, and subsequently, in 1968, the Education Branch of the Department of the Interior, is concerned with direct grants for educational purposes, e.g. for universities, colleges of advanced education, school libraries, technical schools, and science buildings, as well as with grants for building teachers and pre-school teachers colleges. It is responsible for assistance to students for the various Commonwealth scholarship schemes, for the scheme of Queen Elizabeth II Fellowships, and for special scholarships offered by overseas countries for Australians. Among the Department's other responsibilities are matters in the field of international relations in education, including UNESCO and Commonwealth Co-operation in Education, and liaison with State and other education bodies throughout Australia. The Department provides professional advice on education to other Commonwealth departments and authorities. It administers grants to such bodies as the Academy of Science, the Humanities Research Council, the Social Sciences Research Council and the Institute of Aboriginal Studies, and is responsible for grants for scientific research such as those recommended by the Australian Research Grants Committee. It administers educational services in the Australian Capital Territory.

The *Australian Universities Commission* and the *Commonwealth Advisory Committee on Advanced Education* are responsible to the Minister for Education and Science. The Minister is also responsible for the *Commonwealth Scientific and Industrial Research Organization*, the *National Standards Commission*, the *Australian National University*, the *Institute of Aboriginal Studies*, and the *College of Advanced Education* in Canberra. The Department of the Environment, Aborigines and the Arts is responsible for the National Library and for art, literature and other cultural activities in which the Commonwealth is interested.

Commonwealth Scholarships Board

This Board, under its former title of the Universities Commission, was established by the *Education Act* 1945. Prior to 1945 the Commission had functioned under wartime National Security Regulations. The Board consists of a chairman and three other members. The main responsibility of the Board, at present, is advising the Government on the policy and administration of Commonwealth university and advanced education scholarships and Commonwealth post-graduate awards. For a brief description of each type of award, see page 656.

Advisory bodies

The Commonwealth Government has established various advisory bodies whose fields of concern relate to matters of education. Already mentioned above is the Australian Universities Commission, which advises the Commonwealth Government on university development. The Commonwealth Advisory Committee on Advanced Education advises the Minister on the balanced development of tertiary education outside universities. Within financial limits nominated by the Minister, the Committee recommends grants to the States for colleges of advanced education and directs grants to any such colleges established by the Commonwealth. The Australian Research Grants Committee advises the Minister on the merit of applications for research grants from individuals and research teams, and suggests the allocation of funds. The Queen Elizabeth II Fellowships Committee advises the Minister on the merit of applicants for these fellowships, which are awarded for post-doctoral study in the physical and biological sciences, and advises generally on the administration of this scheme of fellowships. The Australian Advisory Committee on Research and Development was established in 1970. Its functions are to initiate research in areas of importance in education, to recommend assistance for the training of educational research personnel and to direct attention to the application of research findings.

International relations

An account of the relations and exchanges in the field of education before 1969 between Australia and other countries can be found in Year Book No. 55, pages 526-527.

A seven-member delegation from Australia attended the Sixteenth Session of the UNESCO General Conference held in Paris in October-November 1970. In addition to considering the UNESCO Programme and Budget for 1971-72, the delegation also contributed to discussions on the Long-Term Outline Plan for further activities (1971 to 1976).

The Department of Education and Science arranged for several specialists sponsored by UNESCO to visit Australia and to confer with and advise Australian experts. They attended the Australian

UNESCO Seminars on Development in Schools of a Critical Study of Film and Television (Melbourne) and the Role of Libraries in Secondary Education (Sydney). In addition the Director-General of UNESCO sponsored an Australian visit by a consultant in the preservation of anthropological and primitive art material.

Under the programme of Commonwealth Co-operation in Education special teaching courses were arranged in 1970 by the Department of Education and Science. A two-year course in infant teaching methods conducted by the New South Wales Department of Education was completed by a group of Ugandan infant teachers. The South Australian Education Department conducted a one-year refresher course in primary teaching methods, which was attended by teachers from Zambia, Nigeria, Tanzania, Botswana, Fiji, New Hebrides and the Gilbert and Ellice Islands. The University of Queensland conducted a one-year course leading to a Certificate of Education for Overseas Teachers. A six-months mathematics workshop for overseas teachers was conducted by Macquarie University in 1970. It was attended by teachers from Malawi, Tanzania, Swaziland, Mauritius, Tonga, Western Samoa, Guyana and Lesotho.

Under the programme of Commonwealth Co-operation in Education the Department of Education and Science arranged short study programmes in Australia for a group of senior educationists from Africa, the West Indies and the Pacific and recruited Australian educationists to occupy key posts in developing countries of the Commonwealth.

Under the Commonwealth Scholarship and Fellowship Plan, the Department of Education and Science was responsible for the award of Australian scholarships to students from other Commonwealth countries and for the nomination of Australian graduates for awards offered by other Commonwealth countries.

Although arrangements for educational assistance for the award of scholarships are made on a bilateral basis between the relevant Commonwealth countries, a Commonwealth Education Liaison Committee in London acts on matters of common interest. The Department of Education and Science liaises with the Australian representative of this Committee.

The Department of Education and Science acts as the selection agency for post-graduate scholarships offered to Australian students by other governments. In 1970 scholarships were offered by twenty-one governments to Australian scholars. The Department is also responsible for the administrative procedures in connection with selection for the various types of travel grants offered by the Australian-American Educational Foundation to Australian scholars and educationists for study in the United States of America. Sixty-seven Australians and thirty-three Americans took up the awards offered by the Foundation in 1970.

Commonwealth grants for education purposes

Grants for research purposes. The Second Report of the Australian Universities Commission recommended that during the calendar years 1964, 1965 and 1966 a total of \$10 million should be provided for universities to support research activities at the post-graduate level, half the sum to be provided by the Commonwealth and half by the States. The Australian Research Grants Committee, which is entrusted with the task of advising on the allocation for particular research projects, was established in April-May 1965 under the chairmanship of Professor R. N. Robertson. Its immediate function was to advise the Commonwealth on the distribution of the \$4 million for the year 1966.

At the beginning of 1967 it was decided that the Committee would continue to function through the 1967-1969 triennium, and was asked to recommend to the Commonwealth Government the distribution of \$9.2 million for the triennium, to be provided solely by the Commonwealth. Details of the distribution of this money may be obtained from the *Australian Research Grants Committee, Report 1967-69*. An amount of \$12.5 million (later increased to \$13.1 million to cover rises in academic salaries) was allocated by the Commonwealth for the 1970-72 triennium and details of its distribution can be obtained from *Grants Approved for 1970* and *Grants Approved for 1971* published by the Committee. A report for the 1970-72 triennium will be published in mid 1972. For details of Commonwealth expenditure under the scheme in 1969-70 see page 662.

Grants for universities. Australian universities depend greatly on government grants for their income. In 1968 income from other than Commonwealth and State grants amounted to just over one-fifth of the total income. Commonwealth grants to the States for universities are made on the recommendation of the Australian Universities Commission which was established by the Commonwealth Government under the *Australian Universities Commission Act 1959*. The principal function of the Commission is to advise the Minister for Education and Science on financial assistance for the maintenance and balanced development of Australian universities. The Commission commenced its work in July, 1959. An historical summary of the financial assistance provided for universities by the Commonwealth Government in the past is given in Year Book No. 55, pages 515-18.

The Fourth Report of the Australian Universities Commission was published in 1969. It recommended Commonwealth grants to the States for State universities of over \$225 million for the triennium 1970-72. In addition, it recommended grants totalling \$88 million for the Australian National University. These recommendations were accepted by the Government and the grants to State universities were given effect in the *States Grants (Universities) Act 1969-1970*. A summary of the maximum grants supported by the Commonwealth for all universities for the 1970-72 triennium and for the 1964-66 and 1967-69 triennia is shown in the following tables and details of Commonwealth payments for universities are given on pages 659-60 and 662.

ALL UNIVERSITIES: SUMMARY OF MAXIMUM COMMONWEALTH GRANTS FOR
THE 1964-66, 1967-69 AND 1970-72 TRIENNIA
(\$'000)

Type of grant	1964-66	1967-69	1970-72
Recurrent grants—			
General	120,833	174,970	252,128
Teaching hospitals	369	809	1,036
Student residences	1,427	1,938	2,541
<i>Total recurrent grants</i>	<i>122,629</i>	<i>177,717</i>	<i>255,705</i>
Capital grants—			
Building projects	40,231	50,683	58,896
Teaching hospitals	3,112	4,927	2,560
Student residences	9,244	12,693	11,967
Computers	1,098	985	1,022
Capital equipment . . . . .	..	..	1,025
<i>Total capital grants</i>	<i>53,685</i>	<i>69,288</i>	<i>75,470</i>
Research	6,000	3,000	4,000
<i>Total Commonwealth grants for all universities</i>	<i>182,314</i>	<i>250,005</i>	<i>335,175</i>

The Commonwealth makes the above grants available to the States on the following bases.

Grant	Basis
Recurrent—	
University recurrent expenditure	\$1 Commonwealth for every \$1.85 of income from fees and State grants
Teaching hospitals recurrent expenditure	\$1 Commonwealth for every \$1.85 of State grants
Teaching and administrative costs of halls of residence and residential colleges	No matching grant required
Capital—	
Building projects in universities and teaching hospitals	\$1 Commonwealth for every \$1 of State grants
Building projects at residential colleges and halls of residence	\$1 Commonwealth for every \$1 of college funds and/or State grants
Research—	
Research and research training	\$1 Commonwealth for every \$1 of State grants

Details of the maximum Commonwealth grants to each State for 1970-72 triennium are shown in the following table.

**MAXIMUM COMMONWEALTH GRANTS TO UNIVERSITIES FOR THE 1970-72 TRIENNIUM
(\$'000)**

Type of grant	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
Recurrent grants—								
General	69,604	47,382	22,088	17,027	11,602	5,293	(a)79,132	252,128
Teaching hospitals	390	371	134	64	53	25	..	1,036
Student residences	791	649	444	121	162	133	241	2,541
<i>Total recurrent grants</i>	<i>70,785</i>	<i>48,402</i>	<i>22,666</i>	<i>17,212</i>	<i>11,817</i>	<i>5,451</i>	<i>79,373</i>	<i>255,705</i>
Capital grants—								
Building projects	18,945	14,377	6,105	4,633	2,563	1,267	11,006	58,896
Teaching hospitals	883	583	310	23	761	..	..	2,560
Student residences	3,777	3,013	807	675	355	542	2,798	11,967
Computers	450	..	225	113	234	..	..	1,022
Capital equipment	405	237	135	110	63	25	50	1,025
<i>Total capital grants</i>	<i>24,459</i>	<i>18,210</i>	<i>7,582</i>	<i>5,554</i>	<i>3,976</i>	<i>1,834</i>	<i>13,854</i>	<i>75,470</i>
Research	1,470	1,097	463	560	285	125	..	4,000
Total grants	96,714	67,709	30,711	23,326	16,078	7,410	93,227	335,175

(a) Includes special grants for research and research training.

Grants for colleges of advanced education. The Commonwealth continues to be advised by the Commonwealth Advisory Committee on Advanced Education. The following tables provide details of grants for the 1967-69 and 1970-72 triennia.

**COLLEGES OF ADVANCED EDUCATION
SUMMARY OF MAXIMUM COMMONWEALTH
GRANTS FOR THE 1967-69 AND 1970-72 TRIENNA
(\$ million)**

Type of grant	1967-69	1970-72
Recurrent grants	20.89	55.11
Capital grants	26.26	57.12
Special grants for libraries	0.50	0.50
Provision for research	0.25	0.25
Total	47.90	112.98

The Commonwealth makes the above grants available to the States on the following bases.

Grant	Basis
Recurrent	\$1 Commonwealth for every \$1.85 of income from fees and State grants
Capital	\$1 Commonwealth for every \$1 State
Libraries	No matching grant required
Research	No matching grant required

**COLLEGES OF ADVANCED EDUCATION
MAXIMUM COMMONWEALTH GRANTS FOR THE 1970-72 TRIENNIUM
(\$'000)**

Type of grant	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
Recurrent grants	9,051	19,927	5,391	4,666	7,611	2,363	(a)6,097	55,106
Capital grants	15,394	15,000	6,400	5,078	4,250	3,250	7,750	57,122
Special grants for libraries(b)	..	..	..	..	..	..	..	500
Provision for research(b)	..	..	..	..	..	..	..	250
Total	24,445	34,927	11,791	9,744	11,861	5,613	13,847	112,978

(a) Grants less fees received. (b) State details of expenditure on this item are not yet separately available.

Grants for technical colleges. The scheme began in July 1964 and between that date and June 1970, the amount made available totalled \$57,465,000. Funds are now being provided at the rate of \$12 million per year and, since the introduction of the Advanced Education Programme, are being devoted almost entirely to apprentice and technical training. The maximum amounts available to the States during the triennium ending 30 June 1974 are shown in the following table. For details of payments made under the Act during 1969-70, see page 662.

**TECHNICAL TRAINING: MAXIMUM COMMONWEALTH GRANTS
FOR THE TRIENNIUM ENDING 30 JUNE 1974**
(\$'000)

<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>All States</i>
13,320	10,030	5,250	3,390	2,870	1,140	36,000

Grants for teachers colleges. The Commonwealth Government reviewed its policy on teachers colleges in 1969 and decided that the unmatched capital grants made to the States should be increased to \$30 million in the next triennium as against \$24 million in the triennium 1968-70. The maximum amounts available to the States during the triennium ending 30 June 1973 are shown in the following table. For details of payments made under the Act during 1969-70, see page 662.

**TEACHERS COLLEGES: MAXIMUM COMMONWEALTH GRANTS
FOR THE TRIENNIUM ENDING 30 JUNE 1973**
(\$'000)

<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>All States</i>
9,900	9,500	3,000	3,600	3,000	1,000	30,000

The Commonwealth also decided to support the introduction of teacher education into the colleges of advanced education and to provide funds for this purpose under the normal sharing arrangements for expenditure on colleges of advanced education in the States. During the triennium ending 30 June 1974, teacher training will be supported at colleges of advanced education located at Bathurst and Wagga in New South Wales; Toowoomba and Rockhampton in Queensland; and at Hobart in Tasmania. Teacher education commenced at the Canberra College of advanced education in 1971.

In addition the Commonwealth Government introduced a new programme to assist the training of pre-school teachers. Legislation enacted in December 1968 provided \$2.5 million for pre-school teacher training facilities during the period 2 December 1968 to 30 June 1971, that is planned to double the existing capacity of training colleges in the States. Legislation has been passed to extend the period of operation of the *States Grants (Pre-School Teachers Colleges) Act* 1968 from 2 December 1968 to 31 December 1972. The amount of money provided is unchanged. For details of payments made under the Act during 1969-70, see page 662. Pre-school teacher training is a function of the State Education Department in Tasmania and in other States it is administered by private organisations.

Per capita grants to independent schools. A provision announced by the Commonwealth Government in 1969 was that of annual per capita grants to independent schools within the States. Since 1970 payments have been made to these schools at the rate of \$35 for each primary student and \$50 for each secondary student. The grants are intended to assist independent schools with their running costs.

Grants for science laboratories. From July 1968 to June 1971, \$37.7 million was distributed to the States in unmatched grants for science buildings and equipment in government and non-government secondary schools. Grants to State schools have been provided on the basis of lists of projects agreed to between the Commonwealth and State Ministers of Education, whilst grants to independent schools are approved by the Commonwealth Minister for Education and Science on the basis of reports by an Advisory Committee on Standards for Science Facilities in Independent Schools, and State advisory committees representing independent schools. Non-government schools in the Australian Capital Territory and the Northern Territory will receive grants for science facilities and for school libraries in conjunction with the capital aid scheme under which the Commonwealth Government meets interest charges on loans and also repays, in equal annual instalments, the costs for school building projects. For details of payments made under the Act during 1969-70, see page 662.

Grants for library facilities in secondary schools. During the three-year period January 1969 to December 1971, the Commonwealth is distributing \$27 million for the development of library facilities (erection, alteration or extension of library buildings and provision of furniture, equipment, books, and library materials) in government and independent secondary schools in the States. Besides the Commonwealth Secondary Schools Libraries Committee, the Commonwealth, as with the science facilities scheme, has the advice of two committees in each State, one representative of Roman Catholic secondary schools and the other representative of other non-government secondary schools. The maximum amounts available to the States during the triennium are shown below. For details of payments made under the Act during 1969-70, see page 662.

**SECONDARY SCHOOL LIBRARIES: MAXIMUM COMMONWEALTH
GRANTS FOR THE TRIENNium ENDING 31 DECEMBER 1971**

(\$'000)

<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>All States</i>
9,984	7,591	3,945	2,576	2,032	873	27,000

As a contribution towards meeting the urgent need for more trained librarians to staff the new and existing libraries, further funds were made available during 1969-70. The funds enabled the Commonwealth to sponsor several short specialist courses in school librarianship in conjunction with State education departments and independent school authorities. The courses were available to teachers from government and independent schools. Eight courses, which 373 persons attended, were held during 1969. Further funds were made available during 1970-71, and the many courses organised were attended by school teacher librarians, principals, subject teachers, teachers college lecturers and principals, educational administrators and university and advanced education college teacher training staff.

Assistance to students

Commonwealth scholarships. The Commonwealth Government provides financial assistance to students through five major scholarship schemes. A total of 28,300 new awards were made available in 1971 under these schemes.

Under the Commonwealth Post-graduate Research Awards Scheme 700 new awards were made available in 1971 for students undertaking research leading to higher degrees at Australian universities. The awards are for full-time study and may be renewed annually up to a maximum period of four years. In 1971, 100 awards were made available for the first time under a new scheme of Commonwealth Post-graduate Course Awards for full-time students taking Masters degrees by course work. Both groups of awards carry a stipend of \$2,600 per annum and certain other allowances.

The Commonwealth University Scholarship Scheme made provision for 12,500 scholarships in 1971. Of these, 8,500 are open entrance scholarships which are allocated amongst the States in proportion to population and are awarded on the basis of results achieved in Australian matriculation examinations. The remaining 4,000 scholarships are Later Year Awards for students who have already completed one or more years of a university course. A small quota of awards from each group is set aside as Mature Age Scholarships for students who have reached the age of thirty years. Scholarship holders have their fees paid and may receive a living allowance subject to a means test. The maximum rates of living allowances are \$1,100 per annum in the case of scholars living away from their parents and \$700 for scholars living with parents.

The Commonwealth Advanced Education Scholarship Scheme made provision for 2,500 scholarships in 1971 for students taking approved courses of advanced education at institutions other than universities. Benefits are similar to those for university scholarships.

In 1964 the Commonwealth Government also introduced the Commonwealth Technical Scholarship Scheme under which it makes available 2,500 new awards annually to assist students to take approved technical courses. Most of these courses are at certificate level in technical colleges. Full-time technical scholarship holders receive the same benefits as Commonwealth secondary scholars. The benefits paid each year to part-time technical scholars are an allowance of \$100, free of means test, and reimbursement of compulsory fees up to a maximum of \$100.

Under the Commonwealth Secondary Scholarship Scheme students compete each year for 10,000 scholarships to assist them during the final two years at secondary school. Secondary scholarship benefits are free of means test and comprise a yearly living allowance of \$200, a textbook and equipment allowance of \$50 per annum and reimbursement of compulsory fees up to a maximum of \$150 per annum.

COMMONWEALTH SCHOLARSHIPS: NUMBERS OF SCHOLARS IN TRAINING
30 JUNE 1970

<i>Type of award</i>	<i>N.S.W.(a)</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.(b)</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust</i>
Post-graduate—							
Granted—							
In 1970	287	169	73	74	29	14	646
Prior to 1970	482	268	125	125	60	24	1,084
Total	769	437	198	199	89	38	1,730
University scholarship—							
Granted—							
In 1970	4,434	2,938	1,518	973	757	278	10,898
Prior to 1970	7,076	6,050	2,791	1,897	1,288	510	19,612
Total	11,510	8,988	4,309	2,870	2,045	788	30,510
Advanced education scholarship—							
Granted—							
In 1970	739	988	465	335	222	71	2,820
Prior to 1970	417	711	299	153	177	79	1,836
Total	1,156	1,699	764	488	399	150	4,656
Technical scholarship—							
Granted—							
In 1970	1,001	692	332	247	192	82	2,546
Prior to 1970	720	675	233	275	68	63	2,034
Total	1,721	1,367	565	522	260	145	4,580
Secondary scholarship—							
Granted—							
In 1970	3,685	2,812	1,414	958	771	314	9,954
Prior to 1970	3,757	2,566	1,388	959	704	244	9,618
Total	7,442	5,378	2,802	1,917	1,475	558	19,572

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

Australian Agricultural Council Scholarships. At the request of the Australian Agricultural Council the Department of Primary Industry makes available from the Commonwealth Extension Services Grant funds 12 scholarships annually (two in each State) to students in Australia who have qualified for a Commonwealth university scholarship and who wish to proceed to an approved course of study leading to a degree in Agricultural Science, Agricultural Engineering, Agricultural Economics, Rural Science or Veterinary Science. The purpose of the awards is to foster interest in agriculture and related fields of study.

As at 30 June 1971, there were 54 students holding Agricultural Council scholarships in Australia.

Aboriginal Study Grants. Awards under the Aboriginal Study Grants Scheme have been made since 1969 to assist Aborigines to take courses of study after leaving school. They provide full-time students with fees, a living allowance of \$1,100 per annum and other allowances; and the part-time students with fees and incidental expenses. In 1970, 305 students held grants.

Aboriginal Secondary Grants. The scheme was introduced in 1970 when 2,379 students received assistance. This scheme assists students to continue schooling beyond the school leaving age by paying living costs, fees and other allowances.

Expenditure on education

The first part of this section summarises, on an Australian National Accounts basis, total expenditure on education, while the second and third parts show expenditure on education by the Commonwealth and States respectively.

Summary of expenditure on education

The presentation in the following tables is based on the Australian National Accounts. The figures exclude expenditure on goods and services which do not enter the market, such as education provided in the home, or for which it is not practical to impute a value, such as the unpaid services of some teachers, or certain educational services which cannot be separated readily from other services, such as instruction on the job. Most of the education services provided by public authorities are included. Some education services are provided by trading enterprises, such as business colleges, but it is not possible to provide separate figures of their transactions. Nor is it possible to provide separate figures

for the expenditure of non-profit organisations, such as non-government schools. Information for these organisations is insufficient to make direct estimates of the cost value of their services. Their contribution is included as part of personal consumption expenditure on education.

Current and capital transactions are shown separately. Current expenditure by public authorities on goods and services classified to education is measured net of receipts, such as fees. These fees are included in private consumption expenditure. Gross fixed capital expenditure represents the value of new capital assets, such as new buildings and additions to buildings, equipment, etc. While it is possible to show to some extent details of education expenditure incurred by the various public authorities, it is not possible to provide consistent figures in total of expenditure on various types of education. Generally, expenditure on libraries, cultural activities, and the like is excluded from 'education', as are most education services provided in the armed forces, by child welfare institutions, and those provided by governments and private employers for their employees, other than teacher education. Identifiable expenditure on education administration and educational research is, however, included. In many cases strict definitions cannot be applied. Thus it is not possible to differentiate between the components of scholarships which are intended for education fees, textbooks, etc. (clearly education expenditure) and those intended as living allowances. University research cannot be separated from university expenditure on teaching. With the exception of expenditure on fees, private expenditure on education (such as for books, equipment provided by parents associations, and the like) cannot be identified and is therefore excluded.

ESTIMATES OF EXPENDITURE ON EDUCATION: AUSTRALIA

1965-66 TO 1969-70

(\$ million)

	1965-66	1966-67	1967-68	1968-69	1969-70p
PUBLIC AUTHORITY SECTOR					
Direct expenditure on goods and services classified to education(a)—					
Net current expenditure—					
Commonwealth authorities	19	23	27	32	40
State and local government authorities	499	556	625	705	828
<i>Total net current expenditure</i>	<i>518</i>	<i>578</i>	<i>652</i>	<i>737</i>	<i>868</i>
Gross fixed capital expenditure—					
Commonwealth authorities	9	10	13	13	16
State and local government authorities	154	161	167	192	210
<i>Total gross fixed capital expenditure</i>	<i>163</i>	<i>171</i>	<i>179</i>	<i>205</i>	<i>226</i>
Total direct expenditure—					
Commonwealth authorities	28	33	40	45	56
State and local government authorities	652	717	791	897	1,038
<i>Total, public authority sector</i>	<i>681</i>	<i>749</i>	<i>831</i>	<i>942</i>	<i>1,094</i>
PRIVATE SECTOR(a)					
Personal consumption expenditure on education	110	119	133	145	156
Gross private fixed capital expenditure on education	32	35	31	27	37
<i>Total, private sector</i>	<i>142</i>	<i>154</i>	<i>164</i>	<i>172</i>	<i>193</i>
TOTAL EXPENDITURE ON EDUCATION					
Grand total	823	903	995	1,114	1,287

(a) Transfer payments from the public authority to the private sector for educational purposes are included in private sector expenditure and therefore excluded from the public authority sector expenditure.

Direct expenditure of public authorities excludes government payments to persons and non-profit organisations. Such transfer payments from the public authority to the private sector consist mainly of scholarships to persons and grants to non-government schools. They include all scholarship payments, whether or not they are intended towards the payment of fees or towards living expenses. Total government expenditure on education, including such transfer payments, is set out in the following table.

ESTIMATES OF PUBLIC AUTHORITY EXPENDITURE ON EDUCATION: AUSTRALIA
1965-66 TO 1969-70
(\$ million)

	1965-66	1966-67	1967-68	1968-69	1969-70
Direct expenditure of public authorities	681	749	831	942	1,094
Transfer payments to the private sector—					
Cash benefits—					
From Commonwealth authorities	21	27	28	32	37
From State and local government authorities	12	13	17	22	27
Grants towards private capital expenditure—					
From Commonwealth authorities . . . . .	..	..	1	1	1
From State and local government authorities	3	4	7	7	8
<i>Total transfer payments</i>	<i>37</i>	<i>45</i>	<i>54</i>	<i>62</i>	<i>73</i>
<i>Total expenditure on education by public authority sector</i>	<i>717</i>	<i>794</i>	<i>884</i>	<i>1,004</i>	<i>1,167</i>

Because of conceptual and accounting differences the figures above are not strictly comparable with figures of State expenditure on schools, technical education, etc., Commonwealth expenditure on education, and university expenditure shown in other sections of this chapter.

Commonwealth expenditure on education

An analysis by major function of Commonwealth expenditure is provided in the following table. Current direct expenditure includes the cost of the Department of Education and Science, the Australian Universities Commission and other administrative expenditure, expenditure by the Australian National University, the Canberra College of Advanced Education, and the provision of education services in the Australian Capital Territory and the Northern Territory (including reimbursements to States for educational services in these Territories, such amounts being excluded from State expenditure). Capital expenditure relates mainly to expenditure on new buildings and equipment by the Australian National University and the Canberra College of Advanced Education, and for schools, etc. in the Northern Territory and the Australian Capital Territory. Commonwealth figures shown in the tables above differ from those shown in the following table because: education grants to the States by the Commonwealth (mainly for universities, science facilities in State schools, technical schools, and colleges of advanced education) are included in the following table, while expenditure by the States from current education grants is excluded from State education expenditure figures on pages 664-5, grants by the Commonwealth Government to the Australian National University and the Canberra College of Advanced Education are shown on page 660, while only the actual net expenditure by these institutions is included in Commonwealth direct expenditure on page 658. For later details of Commonwealth Government outlays in the field of education, see *Public Authority Finance: Commonwealth Authorities 1970-71* (Reference No. 5.12) page 20, compiled in accordance with national accounting concepts.

COMMONWEALTH GOVERNMENT EXPENDITURE ON EDUCATION, 1965-66 TO 1969-70
(\$'000)

Items of expenditure	1965-66	1966-67	1967-68	1968-69	1969-70p
Expenditure on goods and services—					
Department of Education and Science—					
Current	1,509	2,131	3,007	3,916	5,167
Capital . . . . .	..	9	48	125	55
Australian Universities Commission—					
Current	155	195	197	217	229
Australian Broadcasting Commission—					
Current	716	888	817	873	902
Australian Capital Territory—					
Current	4,451	5,254	6,156	7,508	8,591
Capital	3,507	4,652	4,770	4,731	6,735
Northern Territory—					
Current	1,472	1,641	2,240	2,920	3,707
Capital	1,504	1,242	992	1,459	2,985

COMMONWEALTH GOVERNMENT EXPENDITURE ON EDUCATION, 1965-66 TO 1969-70—
continued
(\$'000)

Items of expenditure	1965-66	1966-67	1967-68	1968-69	1969-70 ^p
Aboriginal—					
Current	53	134	1,215	1,701	1,932
Capital	50	32	1,094	282	2,847
Other—					
Current	497	559	635	640	837
Capital	18	76	112	113	137
Total expenditure on goods and services—					
Current	8,853	10,802	14,267	17,775	21,365
Capital	5,079	6,011	7,016	6,710	12,759
Total	13,931	16,813	21,283	24,485	34,124
Grants to Australian National University—					
Current	12,658	14,223	16,698	18,954	21,430
Capital	5,062	5,316	5,570	5,500	4,326
Total	17,720	19,539	22,268	24,454	25,756
Grants to Canberra College of Advanced Education—					
Current . . . . .	..	..	43	323	1,100
Capital . . . . .	..	25	439	940	1,400
Total . . . . .	..	25	482	1,263	2,500
Payments to the States ^(a) —					
Current—					
Research grants	1,378	2,038	3,154	2,879	3,446
Universities	31,551	34,262	39,912	43,534	50,435
Colleges of advanced education . . . . .	..	2,472	5,273	6,282	10,658
Independent schools . . . . .	..	..	..	..	12,177
Aboriginal advancement . . . . .	..	..	..	163	251
Total, current	32,929	38,772	48,339	52,858	76,967
Capital—					
Universities	15,227	16,354	16,329	19,097	17,234
Colleges of advanced education	982	3,681	6,647	8,080	9,486
Technical	6,230	9,894	13,877	7,587	9,878
Teacher education . . . . .	..	..	4,518	6,322	13,160
Secondary (science laboratories)	9,635	10,163	12,587	11,762	12,898
School libraries . . . . .	..	..	..	1,703	7,540
Pre-school teachers colleges . . . . .	..	..	..	170	309
Aboriginal advancement . . . . .	..	..	..	681	636
Total, capital	32,074	40,091	53,958	55,402	71,141
Total	65,003	78,863	102,297	108,260	148,108
Cash benefits to persons—					
Commonwealth scholarship scheme—					
Post-graduate	1,733	2,432	2,899	3,588	4,526
University	10,064	13,890	13,383	16,268	18,160
Advanced education	198	660	754	1,001	1,628
Technical	600	816	1,031	1,123	1,162
Secondary	5,197	6,243	6,474	6,558	6,738
Soldiers' children education scheme	2,534	2,462	2,720	3,154	3,203
Other	667	672	711	807	1,523
Total	20,993	27,175	27,973	32,500	36,941
Grants towards private capital expenditure—					
Australian Capital Territory	237	170	50	397	841
Northern Territory	5	7	6	7	32
Australian National University—					
Affiliated colleges . . . . .	..	80	1,435	428	196
Total	242	257	1,491	832	1,069
Overseas grants and contributions	681	726	791	801	941
Grand total	118,570	143,399	176,588	192,597	249,433

(a) Specifically for education.

The following paragraphs provide further details about the various items of expenditure in the foregoing table.

Department of Education and Science

Current expenditure shown under this heading in the above table relates mainly to salaries of departmental officers (\$3,301,000 in 1969-70) and other administrative expenses (\$990,000 in 1969-70). Some other items included refer to research and investigations into colleges of advanced education; special investigations by, and grants to, the Australian Council of Educational Research; Commonwealth support for the training of school librarians; curriculum development; assistance to the University of Sydney for the production of the Current Affairs Bulletin; departmental rentals, and repairs and maintenance. Capital expenditure relates mainly to furniture and fittings for departmental offices. Departmental activities are described on page 651.

Australian Universities Commission

Expenditure shown under this heading in the above table relates to salaries of officers (\$145,000 in 1969-70) and other administrative expenses (\$50,000 in 1969-70). For a brief description of the Commission's activities see page 652. For detailed information see the *Australian Universities Commission, Fourth Report, May 1969*.

Expenditure on education in the Territories

Expenditure by the Commonwealth Government on education in the Australian Capital Territory and the Northern Territory in 1969-70 is shown in the following table. For further information about education in the Territories see Chapter 29, The Territories of Australia.

**COMMONWEALTH GOVERNMENT EXPENDITURE ON EDUCATION
AUSTRALIAN CAPITAL TERRITORY AND NORTHERN TERRITORY, 1969-70
(\$'000)**

AUSTRALIAN CAPITAL TERRITORY	NORTHERN TERRITORY
Current expenditure—	Current expenditure—
Government schools and colleges—	Government schools—
Pre-schools 326	Pre-schools 204
Payment to New South Wales Department of Education 5,374	Payments to South Australian Department of Education; and teacher moving expenses 2,680
School transport(a) 305	School transport 203
Canberra Technical College 746	Repairs and maintenance 100
School of Music 77	Other 434
Repairs and maintenance 208	Non-government schools—
Other 768	Student allowances
Non-government schools—	Other 86
Student allowances 389	Total, current 3,707
Assistance for buildings 398	
Total, current 8,591	Capital expenditure—
Capital expenditure—	Government schools—
Government schools and colleges—	New buildings and works 2,820
Pre-schools 200	Plant and equipment 127
Primary schools 3,021	Furniture and fittings 32
Secondary schools 2,491	Acquisitions 7
Canberra Technical College 64	
Plant and equipment 152	Non-government schools—
Furniture and fittings 262	Approved capital programmes(b) 32
Other building and related expenditure 545	Total, capital 3,017
Non-government schools—	
Approved capital programmes(b) 841	Northern Territory Scholarships(c)(d) 174
Total, capital 7,576	Total expenditure 6,898
Secondary school bursaries and text book allowances (c)(d) 95	
Total expenditure 16,262	

(a) Includes expenditure in respect of non-government schools not separately identifiable. (b) Included in 'grants towards private capital expenditure' in table on page 660. (c) Excludes Commonwealth Secondary and Technical Scholarships. (d) Included in 'cash benefits to persons' in the table on page 660.

Other Commonwealth expenditure on goods and services

Current expenditure shown under this heading in the table on page 660 relates to grants to the School of Tropical Health and Medicine, the Chair of Natural Philosophy at the University of Melbourne, the Lady Gowrie Child Centres, and the Australian Pre-School Association; capital expenditure relates to the grant to the School of Tropical Health and Medicine, for plant and equipment. Further information about the School of Tropical Health and Medicine and the Lady Gowrie Child Centres is given in Chapter 14, Public Health.

Payments to the States specifically for education

The next table shows payments to the States specifically for education, by function, for 1969-70. Further descriptive information is given in the paragraphs following this table.

**PAYMENTS BY THE COMMONWEALTH TO THE STATES SPECIFICALLY FOR
EDUCATION, BY FUNCTION: EACH STATE, 1969-70**

(\$'000)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>All States</i>
Current—							
Research grants	1,161	864	365	551	323	182	3,446
Universities	20,218	13,960	6,508	4,964	3,281	1,504	50,435
Colleges of advanced education	834	4,837	1,300	1,361	1,929	397	10,658
Independant schools—per capita grants	4,488	3,952	1,830	759	862	286	12,177
Aboriginal advancement	102	65	70	10	..	4	251
<i>Total, current</i>	<i>26,803</i>	<i>23,678</i>	<i>10,073</i>	<i>7,645</i>	<i>6,395</i>	<i>2,373</i>	<i>76,967</i>
Capital—							
Universities	6,512	4,495	1,916	1,506	2,048	757	17,234
Colleges of advanced education	2,937	2,891	890	1,041	1,050	677	9,486
Technical training	3,283	3,000	1,456	807	957	376	9,878
Teachers colleges	6,037	3,250	1,401	2,021	201	250	13,160
Science laboratories—							
Government schools	2,684	2,532	1,040	692	530	82	7,560
Independent schools	1,979	1,505	778	510	391	174	5,337
Secondary school libraries	2,136	2,225	1,816	627	596	140	7,540
Pre-school teachers colleges	26	2	..	..	161	120	309
Aboriginal advancement	48	..	345	80	160	3	636
<i>Total, capital</i>	<i>25,641</i>	<i>19,900</i>	<i>9,642</i>	<i>7,285</i>	<i>6,094</i>	<i>2,579</i>	<i>71,141</i>
Grand total	52,444	43,578	19,715	14,930	12,489	4,952	148,108

Research grants. The amounts shown represent payments by the Commonwealth to the States under the States Grants (Research) Acts. The payments are based on the recommendations of the Australian Research Grants Committee. In addition to the amounts shown, \$92,000 was made available to the Australian National University in 1969-70. A brief description of the history and activities of the Australian Research Grants Committee is given on page 652.

Universities. The amounts shown here represent payments by the Commonwealth under the Universities (Financial Assistance) Acts and the States Grants (Universities) Acts. The amounts paid are based on the recommendations of the Australian Universities Commission, *see* pages 652-4. Further detail of income and expenditure of universities is given on page 641. Commonwealth expenditure in relation to the Australian National University is shown in the table on page 660.

Colleges of advanced education. The Commonwealth provides financial assistance to the States for colleges of advanced education under the States Grants (Advanced Education) Acts. Payments to the States are based on the recommendations of the Commonwealth Advisory Committee on Advanced Education. An extra \$50,000 was provided in 1969-70 by the Commonwealth for research into advanced education. Commonwealth expenditure in relation to the Canberra College of Advanced Education is shown in the table on page 660. Further details of the activities of colleges and available Commonwealth grants are given in pages 641-3 and 654.

Independent schools. The *States Grants (Independent Schools) Act 1969* provides for financial assistance to schools that are not dependent on State finances. The assistance commenced with the 1970 school year. For details of per capita grants to independent schools see page 655.

Technical training. The *States Grants (Technical Training) Act 1968* provides for financial assistance to the States for buildings and equipment for use in technical training in institutions conducted by a State or an institution which is declared by the regulations to be an institution in relation to which the Act applies. The Act provides for assistance for a further three years commencing 1 July 1971, with grants totalling \$36 million for that period.

Teachers colleges. Under the *States Grants (Teachers Colleges) Act 1970* the Commonwealth provides financial assistance to the States for approved building projects in connection with teachers colleges. A maximum of \$30 million is available during the three years ending June 1973. For further details of teachers colleges and teacher education, see pages 643-6.

Science laboratories. The amounts shown under this heading in the above table represent payments under the *States Grants (Science Laboratories) Act 1968* which provides for financial assistance to States for science laboratories and equipment in State and independent schools. For further details of this assistance, see page 655.

Secondary school libraries. The *States Grants (Secondary Schools Libraries) Act 1968* provides for grants totalling \$27 million to be paid to the States over the three years ending December 1971, by way of financial assistance for secondary school libraries in State and independent schools. See page 656 for further details. There were no payments in 1968-69 in respect of independent schools. In addition, the Commonwealth has sponsored special training courses, organised by the States, for school librarians, principals, subject masters, educational administrators and representatives of the teacher training departments of universities and colleges of advanced education and lecturers and principals from teacher training colleges. Expenditure in connection with these courses during the period 1968-69 to 1970-71 totalled approximately \$101,000.

Pre-school teachers colleges. Under the *States Grants (Pre-school Teachers Colleges) Act 1968*, the Commonwealth provides financial assistance to the States for building projects. Payments not exceeding \$2.5 million in aggregate may be authorised under the Act during the period December 1968 to December 1972.

Cash benefits to persons.

The distribution of cash benefits, on a State basis, is shown in the following table.

CASH BENEFITS TO PERSONS: STATES, 1969-70
(\$'000)

	N.S.W.(a)	Vic.	Qld	S.A.(a)	W.A.	Tas.	Aust.
Commonwealth Scholarship Scheme—							
Post-graduate	2,011	1,142	523	525	228	97	4,526
University	6,186	5,350	2,836	1,910	1,323	555	18,160
Advanced education	386	562	370	153	114	43	1,628
Technical	421	365	140	128	75	33	1,162
Secondary	2,556	1,909	954	624	505	187	(b)6,738
Soldiers' Children Education Scheme	1,180	848	556	292	175	141	(c)3,203
Other(d) . . . . .	..	..	..	..	..	..	1,523
Total	12,740	10,176	5,379	3,632	2,420	1,056	36,941

(a) Totals for New South Wales and South Australia include unallocable expenditure on cash benefits to persons resident in the Australian Capital Territory and the Northern Territory respectively. (b) Includes \$3,000 paid to Australians abroad. (c) Includes \$11,000 paid to Australians abroad. (d) Not allocable by State.

Under 'other' in the table above are the following items: Forestry scholarships (\$66,000), C.S.I.R.O. research studentships (\$360,000), scholarships and allowances to students in the Australian Capital Territory (special university scholarships, \$64,000, secondary school bursaries, \$2,000; textbook allowances, \$93,000) and special scholarships to students in the Northern Territory (\$174,000), Aboriginal Study grants (\$190,000), Aboriginal Secondary grants (\$522,000) and Australian Agricultural Council scholarships (\$52,000). Further details of these schemes are given on page 657.

A brief description of each type of Commonwealth scholarship is given on page 656. Detailed information is available in the annual reports of the Commonwealth Scholarships Board. For additional information about the Soldiers' Children Education Scheme, see Chapter 5, Repatriation, and the annual reports of the Soldiers' Children Education Boards.

Grants towards private capital expenditure.

This item represents amounts paid to independent schools in the Australian Capital Territory (\$841,000) and the Northern Territory (\$32,000) for approved capital programmes; and grants to affiliated residential colleges at the Australian National University (\$196,000).

Overseas grants and contributions.

This item represents expenditure in connection with the Commonwealth Educational Co-operation Scheme. Details of Australia's participation in this scheme are given on pages 651-2.

State expenditure on education

The following table shows, for the six States, expenditure on education classified into current expenditure and capital expenditure. Figures of current expenditure are based on an analysis which has been made for special use by the Commonwealth Grants Commission. In this analysis the purpose has been to show a comparison of State expenditure from the Consolidated Revenue Funds and certain special funds for the headings of education expenditure shown. Expenditures from Commonwealth grants for specific current educational purposes have been excluded. Other items excluded are expenditure on payroll tax and superannuation as suitable dissections are not available. The Capital expenditure figures are limited to gross expenditure on educational buildings from the loan funds. This also excludes expenditure from Commonwealth capital grants for educational purposes and expenditure on buildings from certain special funds.

The totals of the table do not agree exactly with the totals which can be derived from the table on page 658. The overall analysis for National Accounts purposes, on which the table on page 658 is based, was originally in a very summary form and did not take account of some of the detail available in the Commonwealth Grants Commission work. The system is being developed into a more complete system of public finance statistics with the object of providing a more detailed classification and a reconciliation between the two analyses. Although comparisons of expenditure between the States are only approximate due to differences in organisation and accounting practices, for the present this table represents the most detailed breakdown available which is reasonably comparable between States. The figures relate to the year ended 30 June 1970 and expenditure per head of population relates total expenditure to the mean population.

STATE AUTHORITIES: ESTIMATED EXPENDITURE ON CERTAIN EDUCATIONAL ACTIVITIES, 1969-70 (\$'000)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>All States</i>
Current expenditure—							
Administrative and general (education departments and schools)	10,329	3,394	3,204	2,270	1,677	689	21,563
Transportation of school children and students	14,545	8,602	4,006	1,653	3,547	1,894	34,247
Training of teachers	15,776	23,366	5,430	7,422	4,608	2,099	58,701
Primary	100,975	77,695	37,130	26,668	26,382	8,951	277,801
Secondary	88,477	54,773	27,785	23,825	17,918	9,922	222,700
Universities	29,540	19,062	8,159	7,349	4,599	2,187	70,896
Technical education	20,942	42,505	5,276	4,801	7,993	1,457	82,974
Agricultural and forestry education	1,965	804	1,248	226	53	8	4,304
<i>Total, current expenditure</i>	<i>282,549</i>	<i>230,201</i>	<i>92,238</i>	<i>74,214</i>	<i>66,777</i>	<i>27,207</i>	<i>773,186</i>
Capital expenditure	55,784	45,616	14,185	15,500	13,775	7,450	152,310
Total expenditure	338,333	275,817	106,423	89,714	80,552	34,657	925,496
Per head(a) (\$)	74.70	80.66	59.60	77.67	83.46	88.68	75.58

(a) Of mean population in each State.

ESTIMATED EXPENDITURE ON CERTAIN EDUCATIONAL ACTIVITIES, ALL STATES
1965-66 TO 1969-70

(\$'000)

	1965-66	1966-67	1967-68	1968-69	1969-70
Current expenditure—					
Administrative and general (education departments and schools)	13,057	14,969	15,577	16,930	21,563
Transportation of school children and students	22,219	25,305	28,397	31,619	34,247
Training of teachers	33,762	37,237	41,475	48,600	58,701
Primary	182,312	196,722	216,631	242,418	277,801
Secondary	128,857	147,578	169,840	192,843	222,700
Universities	44,034	47,898	53,038	61,239	70,896
Technical education	45,080	50,122	57,533	66,800	82,974
Agricultural and forestry education	2,795	3,439	3,858	4,219	4,304
<i>Total, current expenditure</i>	<i>472,116</i>	<i>523,270</i>	<i>586,349</i>	<i>664,668</i>	<i>773,186</i>
Capital expenditure	113,072	119,138	121,253	141,991	152,310
Total expenditure	585,188	642,408	707,602	806,659	925,496
Per head(a) (\$)	51.55	55.61	60.19	67.29	75.58

(a) Of mean population in the States.

CULTURAL ACTIVITIES

Libraries

The Munn-Pitt report of 1935 greatly stimulated interest in libraries and librarianship throughout Australia. This is evidenced by the development of libraries, the passing of legislation in all States to increase library services, and the establishment in 1937 of the Australian Institute of Librarians to improve the standard of librarianship. This body was reconstituted in 1949 as the Library Association of Australia and incorporated by Royal Charter in 1963, and its functions now include the promotion and improvement of libraries and library services. The Association conducts annual examinations in librarianship for which courses of instruction are available in all States and the Australian Capital Territory.

An account of the establishment, growth and functions of the National, Commonwealth, and State libraries is given on pages 533-538 of Year Book No. 55.

Commonwealth libraries

National Library of Australia, Canberra. The Library comprehensively collects and preserves Australian books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, moving picture films, and sound recordings. It is assisted in this by the deposit provisions of the *Copyright Act 1968* and has also been enriched by the acquisition of such notable collections as the Petherick collection of 16,500 items in 1911, the Cook manuscripts in 1923, the Cumpston collection on Public Health in Australia in 1936, the Mathews ornithological collection in 1940, the Nan Kivell collection of 16,000 items of Australian and Pacific interest including original paintings, prints, manuscripts, and printed material in 1959, and the *Ferguson collection of Australiana*, acquired in 1970. The Library maintains a permanent exhibition of paintings, prints, and other historical material selected from its various collections.

In association with the Library of New South Wales, the Library copies on microfilm overseas important unique material relating to Australia.

Australian National Bibliography, which appears weekly, monthly and annually, lists books published in Australia and books dealing wholly or substantially with an Australian subject or written by Australian authors. Associated with this compilation the Library provides a catalogue card service to libraries and others wishing to use its catalogue cards for Australian books. The publications of Australian governments, included in *Australian National Bibliography*, are also listed

annually in *Australian Government Publications* and a subject list of serials is published each year under the title *Current Australian Serials*. The Library's principal activity in subject bibliography is its *Australian Public Affairs Information Service*, published monthly since 1945, with annual cumulations since 1955.

Co-operative bibliographical activity includes recording, in a series of union catalogues, the holdings of the major Australian libraries. The national union catalogue of monographs was commenced in 1960, since when all the larger and an increasing number of the smaller libraries have reported their monograph accessions to the National Library. The major published union catalogue is the loose leaf, continually revised *Serials in Australian Libraries, Social Sciences and Humanities*, which complements another catalogue, *Scientific Serials in Australian Libraries* published by the Commonwealth Scientific and Industrial Research Organization. The Library operates the Australian Medical Literature Analysis and Retrieval System (MEDLARS) service.

The National Library acts as a central library of documentary and educational films, its film collection containing approximately 8,000 titles, together with Australian historical films. It published *Australian Films: a Catalogue of Scientific, Educational and Cultural Films, 1940-58* in 1959 and annual supplements in succeeding years.

The National Library's collections contain over 1,250,000 volumes, 21,000 paintings, pictures and prints, 82,000 photographs, 45,000 reels of microfilm, 2,800 running feet of manuscripts, 60,000 motion picture stills, 18,000 reels of moving picture films, 220,000 maps, and 500,000 aerial photographs.

Patent Office Library. The Library of the Commonwealth Patent Office, Canberra, contains approximately 15,500 books and a wide variety of periodicals and other literature relating to pure and applied science, industrial technology and the industrial property (patent, trade mark, design and copyright) laws and practice of most countries. Patent specifications of inventions are received from the principal countries of the world; present holdings are over 11,500,000. Indexes include a microfilm of a classified index to 3,000,000 U.S.A. patents and translations of abstracts of U.S.S.R. patents.

Commonwealth Scientific and Industrial Research Organization. The library holdings of the Organization cover the pure and applied sciences. In addition to the Central Library and Information Services located in East Melbourne, each of the Divisions has specialised collections covering such subjects as food research, building research, soil research, chemistry, physics, animal health, and fisheries. The Central Library maintains a union catalogue of the holdings of all CSIRO libraries.

The Australian War Memorial Library. In the War Memorial library are housed the documentary and pictorial records of Australia's fighting services in wars in which they have participated. The printed records section contains over 70,000 volumes, a large collection of military maps, newscuttings and newspapers, sound recordings, war posters, and postage stamps. The collection of official war photographs covering the 1914-18, 1939-45 and Korean Wars numbers over 250,000, and a collection of official motion picture film depicts Australia at war. Adequate facilities exist for public research and requests for information are met where practicable.

The Commonwealth Parliamentary Library. The Library provides a special type of service designed to meet the needs of Parliament. The Legislative Research Service prepares briefs covering the history of a subject, background information, summary of viewpoints and arguments, and the compilation and interpretation of statistical information. The Legislative Reference Service answers questions and provides information on any subject, mainly from books, government documents, Hansard reports, periodical articles, and newspapers. The Library collection is concentrated on topical material, supported by a wide collection of standard references; it totals 25,000 titles, including 8,000 serial titles. The Library publishes the *Parliamentary Handbook* which is a standard reference work, a series of periodical abstracting bulletins, occasional annotated reading lists and a fortnightly accessions list.

Other Commonwealth Government libraries. Most Commonwealth authorities have specialised collections in their own fields and in addition draw largely on the National Library.

Library services in the Territories. The Northern Territory Library Service maintains five centres in the Territory. At 30 June 1970 stocks totalled 70,167 volumes which were held at the following centres: Darwin, 31,451; Nightcliff, 8,915; Alice Springs, 18,588; Tennant Creek, 5,956; Katherine, 5,257. The National Library, through its Extension Services Section, conducts the Canberra Public Library Service to residents of the Australian Capital Territory, to whom 1,107,405 loans were made in 1969-70. At 30 June 1970, 294,971 volumes were held, 173,041 at adult libraries, and 121,930 at children's libraries.

State libraries

New South Wales. At 30 June 1970, 185 councils had established libraries in terms of the Library Act, 1939-1969. During 1969-70 they spent on their libraries \$6,227,391 including \$1,791,861 received in subsidy. There are 255 libraries, of which 90 are in the metropolitan area and 165 in the country. There are also 24 bookmobiles, of which one is in Sydney, 10 in the suburbs of Sydney, and 13 in country municipalities and shires. These libraries contain 4,304,418 volumes. The State Library provides a central cataloguing service for municipal and shire libraries constituted under the Act.

Under the Library of New South Wales Act, 1969, the former Public Library of New South Wales became the Library of New South Wales. It includes a General Reference Department of 608,238 volumes, a Circulation Department, together with the Shakespeare Tercentenary Memorial Library, and the Mitchell and Dixson Libraries and Galleries which are mainly devoted to Australian and Pacific material. The Circulation Department lends books to municipal and shire libraries and to individual borrowers. The total stock of the Department is 76,332 volumes, and 38,352 books were lent to public libraries and individual borrowers during 1969-70. In 1970 there were 254,213 volumes in the Mitchell Library, in addition to manuscripts, maps and other material. The total number of volumes in the Library of New South Wales now exceeds 977,315 apart from manuscripts, historical pictures, and other material. The library maintains an adult education section servicing adult education activities for the Universities of Sydney and New England and the Workers' Educational Association.

Other important libraries in New South Wales are: Teachers Colleges, 357,566 volumes; the City of Sydney Public Library, 224,844; Department of Technical Education, 314,978; Railway Institute, 169,110; Parliamentary Library, 139,500; Australian Museum, 38,000; Government Transport Institute, 24,794; New South Wales Teachers' Federation Library, 26,000; Workers' Educational Association, 15,500; and the Library at the National Herbarium, over 10,000 volumes.

Victoria. During 1970-71, 169 Councils shared Government library grants amounting to \$1,623,749. Of this amount, \$1,495,749 was direct municipal library subsidy. With the addition of expenditure from these Councils' own funds the total expenditure on municipal library services for 1970-71 was nearly \$4,609,000. In 1969-70, 941,000 borrowers used the free library services, now totalling 3,000,513 books, to the extent of 16,387,884 issues.

Particularly in the country, service has been developed by means of regional libraries. These services, of which there are 26 at present, comprising a total of 108 councils, consist of groups of councils which pool their resources, book-stocks and trained staff. The Victorian Government provides an Establishment and Regional Library Development Grant of \$100,000 per annum.

There are 14 bookmobile services operating in Victoria, 11 in country regions and 3 in the metropolitan area.

The collections of the State Library of Victoria total about 1,080,000 items. Of these, the La Trobe collection consists of 50,000 volumes as well as many pictures, manuscripts and old newspapers. The State Library receives 7,300 periodicals, annuals and newspapers. The Library also administers the State Archives, which comprise 50,000 shelf feet of records.

Queensland. The holdings of the Public Library of Queensland and its extension services in 1969-70 were: main reference collection, 222,552 volumes and 13,846 maps and pamphlets; Country Extension Service, 92,047; Oxley Memorial Library, 27,771 volumes and 45,081 maps, pamphlets and miscellaneous items.

Local authorities are empowered by the Libraries Act to establish and conduct library services as a function of local government. In 1969-70, 83 local authorities were conducting 152 library services. The Brisbane City Council has established 21 of these libraries, also a mobile library to serve eight outlying suburban areas, and a bookmobile which takes books to incapacitated people. There were 126 libraries in Queensland free to adults. To help overcome the problems of a large area and sparse population, various local authorities have established 4 regional library services with headquarters at Charleville, Barcaldine, Mount Isa and Emerald, respectively. During 1969-70 the State Government provided a grant of \$802,519 from consolidated revenue to finance the activities of the Public Library, to pay subsidies to local bodies conducting free library services, and for the acquisition or improvement of library buildings and equipment and to pay lesser subsidies on books, equipment and maintenance to local bodies conducting subscription libraries. Subsidies were paid to 4 regional library service boards, 77 local authorities and 32 other bodies.

At 30 June 1970 the Parliamentary Library of Queensland contained about 100,000 volumes and pamphlets.

South Australia. The Reference Department of the State Library of South Australia contains 268,889 volumes and receives about 2,600 periodical titles. There are 53,687 volumes in the Adelaide Lending Service. The Country Lending Service has 437,250 volumes. The Adelaide Lending Service lent 308,261 books in 1969–70, and the Country Lending Service, 157,130.

The library of the Parliament of South Australia held approximately 65,000 volumes in 1970.

There are 31 local public libraries in South Australia provided by 22 local government and other authorities. The libraries are subsidised on a \$1 for \$1 basis by the State Government. The Libraries Board of South Australia, through the State Library of South Australia, provides various central services. Book-stocks are pooled in the State Library of South Australia and are interchanged between the libraries.

At the end of June 1970 these local public libraries contained 280,595 books. There were 139,458 registered borrowers. During 1969–70, 2,072,581 books were lent.

Western Australia. The Library Board of Western Australia administers the State Reference Library and the Central Music Library, and provides all books and related services to 126 local public libraries throughout the State. Its stocks at 30 June 1970 were 1,010,769 volumes, comprising circulation stock (including books in public libraries), 703,203 volumes, State Reference Library, 290,660 bound volumes and Central Music Library, 4,175 books on music and 12,731 scores.

Tasmania. The Tasmanian Library Board administers the State Library in Hobart, the extension of library services throughout the State and State aid to libraries. State Government expenditure on library services in 1969–70 was \$650,495. A regional library operates in 5 north-western municipalities, with headquarters in Burnie, smaller libraries in other large towns and a bookmobile in rural areas. A second regional library, with headquarters in Launceston, opened on 1 July 1971. Fourteen southern municipalities are served by 2 bookmobiles based in Hobart and a bookmobile serves schools in the metropolitan area. At 30 June 1970 the State Library in Hobart held 135,188 reference volumes and 106,579 lending volumes. It loaned 402,304 books to municipal libraries during 1969–70.

University libraries

A description of libraries in Australian universities appears on pages 539–41 of Year Book No. 55. The following table shows the number of books and pamphlets held, accessions during the year, and expenditure on libraries for each university. For further information, see annual mimeograph publication *University Statistics—Part 2: Staff and Libraries* (reference No. 13.8).

UNIVERSITY LIBRARIES

<i>University</i>	<i>Books and pamphlets (a)</i>	<i>Accessions during year (b)</i>	<i>Expenditure (c)</i>
	'000	'000	\$'000
Sydney	1,296	76	1,336
New South Wales	560	42	984
New England	274	11	296
Newcastle	158	16	279
Macquarie	242	42	506
Melbourne	564	30	1,061
Monash	383	58	1,312
La Trobe	110	11	572
Queensland	658	49	1,151
Adelaide	525	29	720
Flinders	152	20	339
Western Australia	384	29	554
Tasmania	210	20	335
Australian National	505	41	930
Total	6,021	474	10,375

(a) 30 June 1970.
31 December 1969.

(b) Year ended 30 June 1970.

(c) During year ended

Children's libraries and school libraries

For details of Commonwealth grants for the development of secondary school library services, see page 656 of this chapter.

New South Wales. Children's libraries are being developed as departments of municipal and shire libraries. The Education Department maintains a school library service for the fostering of State school libraries, which are maintained partly by parents and citizens associations and partly by departmental subsidy. Secondary and central schools, and an increasing number of primary schools, have teacher librarians.

Victoria. The Education Department provides for the building of libraries in secondary and technical schools, and new primary schools with 10 or more classrooms. A subsidy of up to \$9,000 is available to other primary schools for library buildings. Library furniture is provided, establishment grants are given to new schools for the purchase of books, and the Government provides an annual per capita grant to all schools. At June 1970, 416 primary, 249 secondary, and 88 technical schools had central libraries.

Queensland. In Queensland, 147 libraries are free to children. The Brisbane City Council conducts 21 of these, also a mobile library to serve eight outlying suburbs. Country children may borrow from the Country Extension Service which has a separate children's collection. The purchase of books for State school libraries in Queensland is financed by school committees and parents associations, with a \$1 for \$1 subsidy from the Department of Education.

South Australia. A children's library of 40,756 volumes is used by school classes and individual children living in the metropolitan area. In 1969-70, 202,506 books were lent. A lending service for young people from thirteen to eighteen years of age has a stock of 16,132 volumes, and in 1969-70, 85,692 loans were recorded.

Western Australia. The Education Department provides library services, issues books and gives library allocations for library resources purchased by schools. All government high schools are provided with library accommodation and furniture and their libraries are staffed by school librarians according to the size of the school. New high schools are issued with books to a value of \$1,500 in each of their first three years and all high schools receive an annual issue of books and an allocation for book purchases. New primary schools are issued with books to the value of \$400 in their first year. All government and non-government schools with post-junior students receive an annual issue of books for matriculation studies. A number of primary schools have organised school libraries in rooms available, or in premises provided by the parents and citizens associations. Annual issues of books are made to all primary schools, varying according to the size of the school, and assistance is provided for the purchase of library books. The Charles Hadley Travelling Library provides 500 boxes of books which are circulated to all small schools, mission schools, and special classes. Children who are unable to attend school are provided with books from the Correspondence School's library.

Tasmania. All the State's municipal libraries have Lady Clark Memorial Children's Libraries. The Lady Clark Memorial Children's Library in the State Library in Hobart has 24,163 books and serves schools in the Hobart Metropolitan area by bookmobile. More than 150 schools which are not close to a municipal library have collections of books on loan from the Lady Clark Memorial Children's Library, which has a stock of 193,850 books. Libraries have been built up in most schools, with Education Department subsidies matching local funds to levels determined by the size of the school. A new Central Library Service Branch offers bibliographic and technical advice on school library development.

Archives

General interest in archives in Australia was aroused in 1888, when the Colony of New South Wales celebrated its centenary, the occasion being marked by official publication in 1889-1894 of the *History of New South Wales from the Records* by G. B. Barton and A. Britton, and in 1893-1898 of the series of *Historical Records of New South Wales*, edited by A. Britton and F. M. Bladen. Both publications were based on transcripts of documents in London which had been made by Mr James Bonwick, appointed Archivist by the Government of New South Wales in 1884.

In 1902 Mr F. M. Bladen presented to the Commonwealth Government a report on European Archives, in which he recommended the establishment of a Commonwealth Archives Office and the copying of further official records in London. The copying project continued and some of its results were embodied in the volumes of *Historical Records of Australia*, published by the Commonwealth in 1914-1925, under the editorship of Dr J. F. Watson.

Measures for the preservation and storage of original documents were not taken until later years. In the absence of duly constituted archives offices, the various major libraries throughout Australia undertook the collection of historical records, both from official and private sources. An archives Department of the Public Library of South Australia was established in 1920, and other institutions formed archives branches in, 1944 (Commonwealth National Library), 1945 (Public Library of Western Australia), 1948 (State Library of Victoria), 1949 (State Library of Tasmania), 1953 (Public Library of New South Wales), and 1959 (State Library of Queensland). Legislation to govern arrangements for official records was passed as follows: South Australia (1925, 1936), Tasmania (1943, 1965), Queensland (1943) and New South Wales (1960). Since 1961, separate authorities for official archives have been established: Commonwealth Archives Office, 1961; Archives Office of New South Wales, 1961; Archives Office of Tasmania, 1965. A Business Archives Council was established in 1954 to co-ordinate activities in the field of company records and a number of firms have established their own archives services. Certain churches have also provided appropriate facilities for ecclesiastical records. Other corporate and private archives continue to be collected by several archives offices, libraries and, more recently, universities.

Commonwealth Archives Office

An account of the development of the Commonwealth Archives Office and a detailed description of its functions appear on pages 543-4 of Year Book No. 55. The Archives Office functions as a central agency for the control of records created by the Commonwealth Government which are no longer required in the day-to-day business of government. At 30 June 1970 the total holdings of the Archives Office throughout Australia amounted to 440,000 shelf feet of records, including 154,000 feet of permanent material, such as files, manuscripts, registers, cards, books, maps, plans, models, paintings, films, photographs, microfilms, recordings and tapes. The Office regulates access to all Commonwealth records, whether in its custody or held by departments, under rules which came into force on 1 January 1971. With certain exceptions, Commonwealth records which are 30 years old or more are available as 'open' to public access. In addition, to facilitate study on the World War II period, accelerated release of records originating between 1 January 1941 and 31 December 1945 is allowed where they are required for the preparation of important works of scholarship. The Office provides an advisory service to inquirers, both official and public, on appropriate sources of information for particular topics including material held by the Office itself, by other Commonwealth agencies and elsewhere. During 1969-70 some 323,000 items were lent to departments. The Office carries out searches for departments and provides information from the records in its custody. Some 13,000 requests for these services were received in 1969-70. In accordance with the Commonwealth Government's access rules, the Office also supplies information to members of the public engaged in academic or other forms of research. Records may be consulted by holders of a search ticket and 157 public search tickets are currently valid. During 1969-70 inquiries were received from 318 researchers. There were 7,200 daily visits to archives search rooms and repositories by officials and the public, and 26,000 items were produced for consultation.

The headquarters of the Commonwealth Archives Office is in Canberra, and there are branches in Sydney, Melbourne, Brisbane, Adelaide and Perth. In 1970 records surveys were conducted in the Northern Territory, Papua and New Guinea and Norfolk Island. The Office maintains liaison with similar organisations in overseas countries and is a national member of the International Council on Archives, established under the auspices of UNESCO.

Archives Office of New South Wales

The Archives Authority of New South Wales is a statutory corporation established under the Archives Act 1960 and has custody and control of the State archives. These are preserved in the Archives Office of New South Wales.

The Act requires that before any public records of the State are destroyed or disposed of, notice must be given to the Archives Authority which may then require any such records to be made available to it. Records transferred to the Authority become State archives and when 35 years old are generally open to holders of a reader's ticket.

The State archives at 31 December 1970 occupied 32,670 feet of shelving. This excludes more than 16,000 maps and plans besides other records which cannot be readily measured. In addition there were about 100,000 feet of permanently valuable records housed mainly in the Government Records Repository.

Archives Office of Tasmania

The Archives Office of Tasmania operates under the *Archives Act* 1965, No. 47. The statutory authority under the Act is the Tasmanian Library Board. No records of state and local authorities may be destroyed or otherwise disposed of except on the written authority of the Principal Archivist. The holdings of the Archives Office amount to about 12,000 shelf feet (including non-public records).

Three parts of a *Guide to the Public Records of Tasmania* have been published and five further record groups are being inventoried for publication. A file lending service is conducted for the benefit of departments and authorities which have deposited semi-current records in the Archives Office. Research workers have access to records in the search room and a mail reference service is provided for country and interstate inquirers. A panel of private researchers is available who hire their services to inquirers who wish to undertake prolonged search of documents.

Australian National University Archives

The Australian National University Archives was established in 1954 when the records of the Australian Agricultural Company were acquired, and in 1959 its collecting activities were expanded to include records of employee organisations. The University now holds a collection of the records of businesses (approximately 110 accessions) and of trade unions (approximately 170 accessions). The aim is to gather primary source material to support advanced research within the University in economic history, history, and political science. Detailed arrangement and description are undertaken and close liaison is maintained with scholars in the Research School of Social Sciences to keep the collecting policy abreast of trends in research. Scholars from other universities are also helped, and reference work is carried out to answer inquiries. The University Archives include deposits which have been microfilmed and pamphlet collections of interest to research workers in political history.

Business Archives Council of Australia

The Business Archives Council of Australia works for the preservation of business records and promotes the writing of business history. The Council itself does not collect business records. The main collecting centres are the Archives of the Australian National University, the University of New England and University of Melbourne. The University of New England concentrates on rural industries. The Australian National University and the University of Melbourne have large collections on a wide range of business activity, and are notable for records of Trade Unions and mining companies respectively.

Museums and art galleries

In 1964 an annual collection of statistics on a uniform basis was commenced from Australian museums and art galleries. The following paragraphs provide summarised results of the collection.

A museum or art gallery is considered to be a building, group of buildings or parts of buildings, managed as a unit and intended predominantly for the permanent display of objects of interest (museum) or objects of art (art galleries) to the general public. Institutions displaying live exhibits are excluded (the more important of these are mentioned on pages 672-3), as are buildings used for temporary displays (exhibitions, commercial galleries exhibiting only for sale) without a permanent stock of exhibits; permanent exhibitions which are ancillary to other activities such as exhibits at council chambers, libraries, hotels, and other commercial enterprises providing services to tourists and sightseers; collections which are not readily accessible to the general public, such as university collections for the use of students and research workers; and historic homes, etc., not specifically intended for the permanent display of objects of interest (i.e. where the building itself and its normal fittings are essentially on display).

Museums and art galleries, 1970

The following table classifies by States and Territories and by ownership the institutions in Australia which have been identified in 1970 as museums and art galleries (branches of museums and art galleries are not shown separately).

MUSEUMS AND ART GALLERIES: STATES AND A.C.T., AND OWNERSHIP, 1970
(Number)

	<i>Major institutions</i>			<i>Other institutions</i>			<i>All institutions</i>
	<i>Museums</i>	<i>Art galleries</i>	<i>Mixed institutions</i>	<i>Museums</i>	<i>Art galleries</i>	<i>Mixed institutions</i>	
State or Territory—							
New South Wales	3	1	..	4	3	2	13
Victoria	2	1	..	3	5	2	13
Queensland	1	1	..	..	3	..	5
South Australia	1	1	..	7	2	..	11
Western Australia	1	1	..	3	1	..	6
Tasmania . . . . .	..	..	2	..	..	..	2
Northern Territory . . . . .	..	..	..	..	..	..	..
Australian Capital Territory	1	..	1	1	..	..	3
Ownership—							
Commonwealth Government	1	..	1	..	..	..	2
State Governments	8	5	1	3	..	1	18
Municipal authorities . . . . .	..	..	1	6	6	1	14
Private trusts . . . . .	..	..	..	3	6	1	10
Universities . . . . .	..	..	..	1	1	1	3
Private . . . . .	..	..	..	5	1	..	6
Total museums and art galleries	9	5	3	18	14	4	53

Some descriptive detail in respect of the major institutions is given on pages 547 to 549 of Year Book No. 55.

Botanical and zoological gardens

In addition to the zoological gardens referred to in the following paragraphs there are numerous privately owned zoos and sanctuaries, many of them at tourist resorts, which maintain collections of Australian flora and fauna. There are also various national parks, forests, reserves, etc., dedicated for public use, which are preserved largely in their natural condition.

New South Wales

The Sydney Botanic Gardens are situated on the shores of Farm Cove, Sydney Harbour. They occupy sixty-six acres and contain a large collection of flowering plants, shrubs and trees as well as hothouses of orchids and ferns.

The Zoological Gardens at Taronga Park, on the northern side of Sydney Harbour, occupy about seventy acres and contain an aquarium. In 1969-70 admissions to the grounds were 903,289. The receipts of the zoological department of the Taronga Park Trust amounted to \$723,509 in 1969-70 and expenditure was \$603,469. Exhibits at 30 June 1970 comprised 895 mammals, 3,082 birds, 374 reptiles, 29 amphibians and 874 fish.

Victoria

The main botanical gardens in the State are the Royal Botanic Gardens, an area of eighty-eight acres within one mile of the centre of the City of Melbourne, containing over 12,000 species of plants, of which there are some 30,000 individual specimens. Many species of native birds breed on islands in lakes within the gardens.

The Zoological Gardens in Royal Park contain a wide selection of animals, birds and reptiles. A wild life sanctuary is also maintained at Healesville.

Queensland

Botanical gardens have been established in Brisbane and in several other cities. The Brisbane Botanic Gardens occupy approximately forty-six acres on the banks of the Brisbane River in the central city area and are noted for their collections of palms, tropical trees and shrubs, and succulents; they contain over 7,500 species.

Initial development has started on a new Botanic Gardens in the foothills of Mount Coot-tha, about three miles from central Brisbane. The area being developed is approximately 200 acres.

South Australia

The Botanic Garden covers forty-five acres and contains collections of Australian and exotic plants from low rainfall and sub-tropical regions. In glasshouses are collections of tropical, ornamental and economic plants. Special collections include cacti and succulents, bromeliads, and begonias. An up-to-date and comprehensive botanical and horticultural library is maintained.

Mount Lofty Botanic Garden, of approximately 180 acres, was established in 1960 and is expected to be opened to the public by the mid-1970s.

The State Herbarium was established in 1952 and moved to the present building in 1965. It contains about 250,000 specimens.

The Zoological Gardens, opened in 1883, have an area of approximately 19 acres, and contain a fine collection of animals, reptiles, and birds.

Western Australia

A botanic garden and arboretum for the native plants of Western Australia is in King's Park, a reserve of almost 1,000 acres close to the centre of Perth. The West Australian collections at present comprise a total of 1,200 species of trees and wildflowers. Virtually all trees native to the southern half of the State, with the exception of some rare mallees, are represented in the arboretum.

Regular field work is undertaken to collect material and carry out botanical exploration. Seed of native plants collected is distributed to botanical institutions throughout the world and to private growers and nurserymen. An annual seed list offers from 900 to 1,000 species. About 8,000 packets of seed are distributed each year.

Research on propagation of native plants is carried on in the nursery and information acquired is passed on to growers through State branches of the Society for Growing Australian Plants and its journal. Facilities are provided for the employment and ancillary training of students enrolled in the three-year course of the Western Australian Certificate of Horticulture and Park Administration.

The Zoological Gardens at South Perth have an area of 44 acres and are under the control of the Zoological Gardens Board. Animals, birds and reptiles are exhibited. During the year 1969-70, 207,108 adults and 179,772 children paid for admission into the zoo and in addition, 3,735 disadvantaged children and adults were admitted free.

Tasmania

The Royal Tasmanian Botanical Gardens adjoining Government House on the Queen's Domain contain a fine collection of exotic trees and shrubs and a small aviary.

There are three main privately owned wildlife sanctuaries and zoos, each with a few exotic animals, at Granton near Hobart, at Punch Bowl near Launceston and at Westbury, 20 miles from Launceston. The Launceston City Council keeps a small collection of animals and birds at City Park.

Northern Territory

The Darwin Botanical Gardens occupy seventy-four acres and feature thirty acres of tropical plants of both native and overseas origin. They are controlled by the Darwin City Council.

Australian Capital Territory

The Canberra Botanic Gardens on the lower slopes of Black Mountain have been under development since 1950. The gardens are on a 100-acre site and are being developed for the study of the botany, propagation, and cultivation of Australian native plants. The gardens were opened for public inspection in 1967 and were officially opened in 1970.

The Tidbinbilla Nature Reserve covers 11,500 acres of the Upper Tidbinbilla Valley, about 25 miles from Canberra. Approval for its establishment was given in 1964. It is designed to conserve the indigenous plant and animal communities and to enable the public to see the fauna in their natural habitats. Though still in the early stages of development, the reserve attracts many visitors.

Book publishing

Statistics of book publishing in Australia and the External Territories are prepared from data supplied by the National Library of Australia, which receives copies of all books and pamphlets published in Australia and the External Territories, although not necessarily in the year of publication.

The method of counting conforms with international practice. Each title is counted as one unit. The statistics cover all non-periodical publications published in Australia. They refer to publications of five pages or more and include pamphlets, new translations, and re-editions. They include govern-

ment publications, educational textbooks, published university theses, etc., but exclude publications not available to the general public, advertising material, publications of transitory interest, musical works, and maps and charts.

Number of publications received

The following table shows the number of publications received by the National Library in 1970 by subject classification and publisher. Trade publishers are those organisations set up predominantly for publishing, whose title output is significant and widely available throughout the bookselling trade. In the table, marginal publishers, commercial, are firms for whom publishing is subsidiary to their main function. Comparative figures are given for receipts from 1966 to 1969.

AUSTRALIAN PUBLICATIONS RECEIVED BY THE NATIONAL LIBRARY IN 1970: SUBJECT GROUP AND PUBLISHER

	<i>Books</i>	<i>Pamphlets</i>	<i>Total</i>
Subject group—			
Bibliography, libraries, general	62	94	156
Philosophy, psychology	13	11	24
Religion, theology	68	71	139
Social sciences	582	902	1,484
Linguistics, philology	68	27	95
Science	221	284	505
Technology, business	399	817	1,216
Art, amusement	151	168	319
Literature—			
History of literature, literary criticism, anthologies, school editions	17	6	23
Australian literature	271	63	334
Other literature	106	14	120
Geography, travel	99	83	182
History, biography	158	114	272
<i>All publications</i>	2,215	2,654	4,869
Publisher—			
Government	377	1,467	1,844
Trade	1,285	298	1,583
Marginal—			
Commercial	58	86	144
Societies and institutions	439	739	1,178
Private individuals	56	64	120
<i>Total</i>	2,215	2,654	4,869
Annual receipts—			
1969	1,890	1,986	3,876
1968	1,711	1,689	3,400
1967	1,601	1,769	3,370
1966(a)	n.a.	n.a.	3,026

(a) Includes a small number of books and pamphlets published in Australia's External Territories.

Commonwealth Literary Fund

The Commonwealth Literary Fund assists the development of Australian literature and promotes a greater awareness of that literature. The Fund awards fellowships each year to enable selected writers to devote themselves full-time to literary projects; such fellowships have a maximum value of \$6,000 each a year. Assistance is given to publishers for the publication of manuscripts considered to be of high literary merit and through State adult education authorities for programmes of lectures on Australian literature. The Fund also provides financial support to Australian literary magazines and operates a scheme of pensions for Australian writers of national stature.

The Fund is administered by a Committee of three parliamentarians, traditionally under the Chairmanship of the Prime Minister, on the advice of an Advisory Board expert in literary matters.

Commonwealth assistance to Australian composers

The Advisory Board, Commonwealth Assistance to Australian Composers, was established in 1967 to advise the Government on financial support for the composition of music in Australia and on the promotion of the work of Australian composers in Australia and abroad; the Advisory

Board is the responsible Commonwealth body in all matters relating to these areas. The Advisory Board's activities in connection with direct assistance to composers include full-time and part-time fellowships for composing music, the value of a full-time fellowship being \$6,000 a year; short-term aid to composers to enable them to complete compositions for performance; assistance for the commissioning of works by Australian composers; and programmes for student-composers to gain advanced practical training in the techniques of composition.

In the matter of promoting the work of Australian composers the Advisory Board offers assistance for the publishing of music, the copying of scores, and the copying of parts of scores for performance; assistance towards the costs of recording Australian compositions; and assistance through State Adult Education authorities for lecture/recitals aimed at developing interest in Australian music at the community level. The Advisory Board is active also in a number of other ways in the areas of national and international promotion of Australian music.

Film production

Australian National Film Board

The Australian National Film Board advises the Minister for the Interior on matters concerned with the production, acquisition and distribution of films required by Commonwealth departments for use within Australia on important matters of national interest and welfare, such as school and adult education, rehabilitation, social development, international understanding, trade and tourist expansion, and immigration; and for dissemination abroad to expand trade and commerce with other countries, to encourage tourist traffic with Australia, to improve Australia's relations with other countries and, where necessary, to explain Australia's national policies, and to encourage immigration.

The Board has twelve members with the Secretary of the Department of the Interior as chairman, and the remainder representative of Commonwealth departments, State government instrumentalities, and other interested organisations.

Commonwealth Film Unit

The Film Division of the News and Information Bureau, Department of the Interior, is the official film production and distribution agency for Commonwealth departments and instrumentalities. It is referred to as the Australian Commonwealth Film Unit. It distributes theatrical and television Film Unit productions in Australia and overseas through its representatives at Australian official posts. Non-theatrical distribution in Australia is arranged in co-operation with State film distribution agencies, and through the National Library of Australia.

The Film Unit produces films for general exhibition, as well as training and special purpose films. In 1970-71 the Film Unit produced approximately 110 reels of new films and 150 reels of foreign versions of existing films. While many films are released commercially abroad, the emphasis is on distribution of educational and information films through non-theatrical circuits. Selected films have been recorded in most Asian and European languages and in Esperanto and Pidgin.

In addition to films made on its own initiative, the Commonwealth Film Unit produces films under the sponsorship of, or with the co-operation of, Commonwealth departments and other government instrumentalities. It participates in cultural events such as those surrounding Expo '70 in Japan.

Australian Film Development Corporation

The *Australian Film Development Corporation Act 1970* provided for the establishment of an Australian Film Development Corporation to administer a fund with an initial capital of \$1 million. The Corporation will make loans to film and television producers and will guarantee repayment of loans made to producers of Australian films.

Censorship

National Literature Board of Review

The National Literature Board of Review was established in 1968, following Commonwealth-State agreement, to achieve uniformity in the administration of laws relating to blasphemous, indecent or obscene publications of *prima facie* literary, artistic or scientific merit. In terms of the agreement the Board is established under the Customs (National Literature Board of Review) Regulations. Appropriate Ministers of any State may, under the Agreement, refer works published or distributed locally to the Board for advice. Subject to retention of final responsibility by each Minister it is the intention of the Governments concerned not to act against a publication of merit which the Board advises is suitable for distribution in Australia.

Film censorship

The Commonwealth Government's powers over censorship of films under the Customs Act extend only to imported films and imported advertising matter. Under that Act the Customs (Cinematograph Films) Regulations provide for the appointment of a Film Censorship Board whose function is to ensure that films and related advertising material coming within certain defined categories are not admitted into Australia. The Film Censorship Board may pass films in their original form, reject them, or pass them after eliminations have been made. Legislation passed by the State Governments of Victoria, Queensland, Western Australia, and Tasmania names the Commonwealth Film Censorship Board as the censorship authority and vests in it the power to classify films as suitable for general exhibition or not. The State Acts give the Commonwealth Board the authority to censor films made in Australia for commercial exhibition and advertising.

The censorship organisation comprises a Censorship Board of seven persons and a Cinematograph Films Board of Review, the headquarters being in Sydney. Importers have a right of appeal to the Minister against decisions of the Board and the Board of Review.

Thirty-five mm films for exhibition in picture theatres. In 1970, 1,564 films comprising approximately six million feet, were censored. This represented approximately 1,103 hours screening time. Of these films, 564 originated in the United Kingdom, 323 in the United States of America and 677 in other countries. Principal suppliers among the last mentioned were: Italy (85), Greece (72), USSR (59), France and Japan (47 each), India (22), and Sweden and Holland (14 each). Included in these figures were 594 full-length feature films which constitute the main theatrical attractions. Feature films came from the United States of America (167), the United Kingdom (88), Italy (73), Greece (46), France (36), USSR (34), Japan (25), Czechoslovakia (12), Sweden (11), Yugoslavia (9). Forty-five feature films were rejected and cuts were made from 136. There were 46 appeals; 27 against rejection, 10 against proposed eliminations and 9 against rejection of advertising matter. Ten appeals were allowed and 36 disallowed.

Feature films classified as suitable for general exhibition numbered 165, and 384 were considered not suitable for children. Of the latter, 155 carried the special condition that all advertising should indicate that they were suitable only for adults. These classifications are advisory only and are designed to enable picturegoers, particularly parents, to obtain a general idea of the nature of any particular film. In addition to these imported films, 122 thirty-five mm films of 108,918 feet produced in Australia were cleared. These were mainly newsreels and documentaries intended for commercial exhibition or export.

Sixteen mm films. Excluding those imported for television use, 5,282 sixteen mm films of approximately 4.5 million feet were examined. These were films commercially produced for screening in theatres used by business undertakings for advertising and instructional purposes, and for screening in churches, schools and universities. They also included a number of 16 mm theatrical features, some having been previously imported in 35 mm. One was rejected.

Eight and 9.5 mm films. Approximately 212,000 feet of 8 mm and 9.5 mm films were examined. Eighty-six films with an approximate footage of 9,900 feet were rejected.

Television films. In 1970, 9,311 films for use on television, predominantly 16 mm, of approximately 12.5 million feet, were censored. The number of films is not a true indication of volume because many were of short duration and because these figures include a number of videotapes converted to their 16 mm cine film equivalents. In terms of screening time, the films and tapes censored for television amounted to approximately 5,848 hours. On a footage basis the United States of America supplied 66 per cent of the total imports and the United Kingdom 28 per cent. Thirty-two television films were rejected outright and an additional 45 were classified as unsuitable for televising. Eliminations were made from 571. There were no appeals.

Foreign language films. Countries other than Australia, the United Kingdom and the United States of America supplied 555 of the 35 mm foreign language films imported for theatrical exhibition, of which 335 were feature films. Generally, the dialogue is in a foreign language with explanatory English captions. A few have an English commentary and in some cases English dubbed dialogue. Of 5,282 sixteen mm films censored, 1,066 originated from non-English speaking countries. The chief supplying countries were Germany (265), France (188), Japan (187), Italy (133), Poland (41), Holland (37), Sweden (34), USSR (17), Switzerland (15) and Yugoslavia (12).

Cultural organisations**Australian Council for the Arts**

The Australian Council for the Arts commenced operation in 1968 as the Commonwealth Government's adviser on financial support for the arts and on policies for their development throughout Australia. The Council provides basic support for State drama companies, national touring companies

such as the Australian Ballet and the Australian Opera, regional organisations such as the West Australian Ballet and the Queensland Opera Company, and the three federal co-ordinating and entrepreneurial organisations—the Australian Elizabethan Theatre Trust, Arts Council of Australia and Musica Viva. The National Institute of Dramatic Art and the Australian Ballet School are largely supported by the Australian Council.

In addition to grants which are given on an annual basis, a number of programmes have been set up from which assistance is given throughout the year, and applications for assistance are invited through regular advertising in the national press. A training programme helps to train theatre personnel as well as artists, a research programme examines the needs of the arts and suggests new areas for assistance, and an international programme enables Australians to have the opportunity of seeing overseas companies and Australian companies to travel overseas. In addition a development fund assists a wide variety of projects throughout Australia in the fields of drama, Aboriginal arts, music, festivals, film and television, youth and education as well as assisting Australians engaged in the performing arts to spend a period abroad for additional training. A special projects fund enables new areas of assistance to be developed, for example craft programmes and community programmes, as well as assisting multi-media and environmental work.

Australian Ballet Foundation

The Australian Ballet Foundation was formed in 1961 by the Australian Elizabethan Theatre Trust and J. C. Williamson Theatres Ltd to establish a national ballet company, which gave its first performance on 2 November 1962.

The establishment of a permanent Australian company, the appearance of the world's leading artists with the company, the commissioning of works by Australian composers, choreographers and designers and presentation of the company overseas were achieved within the first three years.

The Foundation receives subsidies from the Federal Government (through the Australian Council for the Arts), the seven State Governments and the major municipal bodies (through the Australian Elizabethan Theatre Trust). It also receives support from private corporations and individuals.

The Australian Ballet has its headquarters and studios in Melbourne. The company's school has an annual intake of 20 students, selected by national audition, who undertake a full-time course in ballet and the allied arts. Students receive scholarships and these are made available through government subsidy and by private donors.

Australian Opera

The Australian Opera was created in 1956 under the auspices of The Australian Elizabethan Theatre Trust to form the basis of a national touring opera company. It was known as The Elizabethan Trust Opera Company until the end of 1969 when The Australian Opera formed its own Board of Directors. In its early years the company retained only a core of full-time administrative officers and engaged its singers for each annual season. These seasons involved the presentation of three operas in most years and a tour circuit covering each State of the Commonwealth. In addition small country touring companies travelled through New South Wales, Queensland, Victoria and South Australia. Since 1967 the company has permanently employed a chorus nucleus and several principal singers. It currently employs a chorus of thirty-six singers, and thirty-one principal singers on a permanent basis and a total administrative, technical and music staff of thirty people. It uses on a year-round basis one of the two orchestras maintained by The Australian Elizabethan Theatre Trust.

In 1971 The Australian Opera will give 227 capital city performances (eleven different productions) and a touring company will present 'The Marriage of Figaro' in some 48 country centres in the four States.

The Australian Opera receives Government grants through the Australian Elizabethan Theatre Trust and the Australian Council for the Arts.

Australian Elizabethan Theatre Trust

The Australian Elizabethan Theatre Trust, originally formed to present drama, opera, ballet and puppetry throughout Australia, has accorded full autonomy to most of the performing companies established by the Trust in its earlier years. The Marionette Theatre of Australia continues to operate under Trust administration. The Trust's major functions now are to supply certain financial guarantees to the independent performing companies; to maintain two orchestras to service the requirements of the Australian Opera and the Australian Ballet; to administer the complex subscription booking systems on which both of these companies now operate; to maintain a Production Division executing costume and scenery designs; and to act as entrepreneur in the touring of theatre features from overseas and Australian sources.

The Trust receives annual grants from the Commonwealth Government, the State Governments, and some capital city councils and its revenue is supplemented by subscriptions from members and donations from business houses.

Arts Council of Australia

The Arts Council of Australia has divisions (and more than 140 branches) in all States and the mainland Territories. A Federal Secretariat was opened in Canberra in 1969 but will move to Sydney towards the end of 1971.

The Arts Council and the Divisions receive funds from the Australian Council for the Arts. The Divisions also receive State Government grants in New South Wales, Victoria, Queensland and South Australia. Some activities of the Council are supported financially by non-metropolitan local government bodies. The New South Wales Division is represented on the Adult Education Advisory Board in that State, and on the Music Committee of UNESCO. The Tasmanian Division is represented on, and works closely with, the Adult Education Board of that State.

The Arts Council works to bring the arts from overseas and local sources to country centres and metropolitan and country schools, and is also concerned with taking the arts to children. Tours by high standard companies in opera, ballet, drama, puppets, etc., operate throughout the year. The Arts Council works closely with the Australian Ballet, the Australian Opera and regional companies in organising country tours for these bodies.

The Council handles a wide range of art exhibitions in city and country areas. Summer schools and other courses for drama, painting, pottery, music, and other arts are an established feature of the work of the New South Wales and Queensland Divisions, as are weekend schools of drama, music, painting and pottery.

Yearly drama festivals are conducted. The New South Wales Division sponsors biennial arts festivals in Sydney (North Side Arts Festival), with the fifth festival being planned for August 1973. The Queensland Division of the Arts Council organises an annual School of the Arts.

School tours are organised in New South Wales and Queensland.

Australian National Trusts

The Australian National Trusts were founded to further the preservation of lands, places, buildings, works, and articles which are of national importance by reason of educational, aesthetic, historic, architectural, artistic, scientific, cultural, or other special interest.

The first Australian National Trust, the National Trust of Australia (New South Wales), was formed in 1945. Since then National Trusts have been formed in each of the other States. The Trusts in New South Wales, Queensland, South Australia, and Western Australia have statutory authority, and those in Victoria and Tasmania are incorporated under the Companies Act of their respective States. The Australian Council of National Trusts was incorporated in 1965 to co-ordinate the activities of the State National Trusts and represent them at the federal level and internationally.

Membership of the National Trusts is open to all individuals and organisations. Total membership throughout the Commonwealth is approximately 30,000. The Trusts are financed by members' subscriptions and donations from individuals and commercial and industrial organisations, the proceeds of charges for entry to Trust properties and the fund-raising activities of members, including inspections of historic houses. In some States the Trusts are subsidised by the State Governments.

The number of properties owned or controlled by the Trusts exceeds sixty. These include houses, natural reserves, a powder magazine, a police station, a gaol, two paddle steamers and a hulk, a joss house, and a garden. The Trusts have also established a register of buildings (totalling several thousand) which they consider should be preserved in the national interest because of their historical and or architectural significance.

Historic Memorials Committee

The Historic Memorials Committee was established in 1911 for the purpose of securing portraits of distinguished Australians who had taken an active part in Federation. Later the Committee decided to obtain portraits of all Governors-General, Prime Ministers, Presidents of the Senate, Speakers of the House of Representatives, and other notable Australians. In addition the Committee has commissioned paintings recording special events connected with the Commonwealth Parliament.

The Committee comprises the Prime Minister (Chairman), the President of the Senate, the Speaker of the House of Representatives, the Vice-President of the Executive Council, the Leader of the Opposition, and the Leader of the Opposition in the Senate. The Art Advisory Board, *see* below, assists the Committee by advising on portraits to be commissioned.

Commonwealth Art Advisory Board

The Commonwealth Art Advisory Board is the Government's adviser on all matters pertaining to the visual arts, including the commissioning of portraits by the Historic Memorials Committee. The Board is also responsible for the purchase of works of art for the National Collection which embraces historical and contemporary Australian works, contemporary art on a world-wide basis, and the art of indigenous peoples of the Pacific Basin. The National Collection will ultimately be housed in the proposed Australian National Gallery which is to be built in Canberra.

On behalf of the Government, the Board organises and finances exhibitions of Australian art in overseas countries and contributes towards the cost of exhibitions from overseas which visit Australia under the patronage of State Art Galleries.

SCIENTIFIC AND INDUSTRIAL RESEARCH IN AUSTRALIA

Background

Scientific research in Australia increased considerably with the outbreak of the 1939–45 War and research activities continued to expand in the period of rapid post-war economic growth. Prior to 1939 Australia's research effort had been oriented towards the biological sciences, but under the stimulus of military requirements, this effort spread to the physical sciences and to problems of industrial technology. Research in the medical and social sciences also increased. With the overall research expansion a growing number of government agencies, both Commonwealth and State, university departments and industrial organisations established scientific programmes related to their various areas of interest and responsibility.

Much of the present day research effort is directed towards the development of natural resources and of primary and secondary industries. For information about research in the rural industry and the mineral industry, *see* Chapters 23 and 27 respectively. There is also considerable research effort in the medical sciences, space sciences, environmental sciences, social sciences, and in atomic energy.

Commonwealth Government

The Commonwealth Government has played a key role in the war time and post-war development of the national scientific effort through programmes of research and related scientific activities in its own establishments and in funding scientific activities generally.

Over thirty Commonwealth Government agencies are engaged in research and scientific activities having a wide range of interest including development of natural resources and of primary and secondary industries; health; communications and transport; atomic energy; defence. Details of these activities are contained in annual reports of the individual agencies. A brief description of the research activities of the Department of Supply is given in Chapter 4, Defence.

Through its own agencies the Commonwealth Government engages in extensive research in the area of defence science. Research programmes are undertaken to meet Australia's defence needs and to fulfil agreed commitments under international arrangements. Australia has co-operated with allied nations in scientific projects of defence significance, particularly where such projects add to technological development in Australia.

Commonwealth Scientific and Industrial Research Organization

The Commonwealth Scientific and Industrial Research Organization (CSIRO) is Australia's largest civil scientific body and now has a staff of about 6,400 including some 2,000 professional scientists. Its main function is to carry out scientific research for the primary and secondary industries of the Commonwealth and its Territories. It does not conduct defence research, medical research or atomic energy research. The other powers and functions of CSIRO as defined in the Science and Industry Research Act of 1949, include:

- training of scientific research workers and the awarding of scientific research studentships and fellowships;
- making of grants in aid of pure scientific research;
- recognition or establishment of associations of persons engaged in any industry, for the purposes of carrying out industrial scientific research and the co-operation with, and the making of grants to, such organisations;
- testing and standardisation of scientific apparatus and instruments and the carrying out of scientific investigation connected with standardisation;
- collection and dissemination of information relating to scientific and technical matters; and
- publication of scientific and technical reports, periodicals and papers.

CSIRO is a statutory corporation operating under its own Act of Parliament and exercising its powers subject to the regulations and the approval of the Minister for Education and Science.

The governing body of the Organization is the Executive, which is located in Canberra and consists of nine members appointed by the Governor-General. There are five full-time members, one of whom is chairman, and four part-time members. At least five of the members must possess scientific qualifications. The Executive is responsible to the Minister for the policy and the work of the Organization.

CSIRO has thirty-three Divisions, each working in some particular area of research such as animal health, tropical pastures or textile physics. Since the Organization's activities are Commonwealth-wide and often involve extensive field work, a number of branch laboratories and field stations have been established in various parts of Australia. The Head Office is in Canberra and Regional Administrative Offices are located at Brisbane, Canberra, Melbourne, and Sydney. The Organization also has an Australian Scientific Liaison Officer in London and Scientific Counsellors in Washington and Tokyo.

The Organization's total budget for 1970-71 was about \$65,000,000. Nearly four-fifths of this was provided directly by the Commonwealth Government, the remainder being contributed by primary industry, individual companies, Australian and overseas government instrumentalities and private foundations.

Australian Atomic Energy Commission

The Australian Atomic Energy Commission is a statutory corporation which functions under the direction of the Minister for National Development. It consists of five members. The Commission is responsible for undertaking and encouraging the search for and mining of uranium and is empowered to co-operate with the appropriate authorities of the States in connection with these and related matters. It is authorised to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research, and generally fostering the advancement of atomic energy technology. A detailed description of its activities is contained on pages 560-562 of Year Book No. 55.

Nuclear Power

In October 1969 the Commonwealth Government announced a proposal to build a nuclear power station of 500 megawatt capacity at Jervis Bay, on the New South Wales south coast, by 1975, subject to a satisfactory tender. This followed discussions early in 1969 between the Commonwealth and all State Governments. However, in June 1971 the Government decided to defer the decision for twelve months.

If the project is undertaken it will be in collaboration with the Government of New South Wales and its Electricity Commission. The station will be financed and owned by the Commonwealth, and the power supplied to the State electricity network. New South Wales would be asked to guarantee the long-term power requirements of the Australian Capital Territory. The Commonwealth would supply the fuel and retain the spent fuel.

A detailed programme of environmental surveys, including meteorology, tides, currents and marine life, has been undertaken to ensure that the power station will cause the minimum of disturbance to the environment.

Associated training and research organisations

The Australian Institute of Nuclear Science and Engineering comprises the Australian Atomic Energy Commission and Australian universities. The Institute's operations are financed by membership subscriptions and a Commonwealth Government grant which amounted to \$200,000 in 1969-70. The purpose of the Institute is to stimulate research and training in nuclear science and engineering within the universities and to arrange access for university research workers to the highly specialised equipment at the A.A.E.C. Research Establishment.

The Australian School of Nuclear Technology is jointly sponsored by the Commission and the University of New South Wales. Courses are being offered in nuclear technology, production and use of radioisotopes, radiological safety, health physics, and other related topics.

State Governments

Scientific programmes of the six State governments are directed mainly towards agriculture, fisheries, forestry, public health, water supply and power generation, engineering and construction, and areas of the social sciences. These research programmes are generally of an applied nature and are related directly to the various responsibilities of the departments and instrumentality concerned. State Government research programmes extend to such fields as physical and mental health, child welfare, vocational guidance, etc., and represent an important contribution to Australia's overall research effort.

Universities

Most research in the universities is of a fundamental character, although some university departments are also concerned with applied research directed to the solution of practical problems. The fifteen universities in Australia are engaged in an extensive and diverse range of research programmes in the physical, life and social sciences. The post-war growth of university research has been accompanied by rapid development of post-graduate studies which, prior to the late 1950s, were undertaken mainly overseas.

Details of the courses offered in Australian universities together with background information on their teaching and research programmes, and a comprehensive summary of general university development in recent years are given in Year Book Number 55, 1969 pages 507-9. The reader should also refer to the handbooks and calendars published by each university.

Industry

An increasing amount of research and development is being undertaken by Australian industries. Firms with major research programmes are mainly in the chemical, pharmaceutical, electronic, sugar, paper, mining and steel industries. Several industries have established research institutes or associations.

Productivity promotion

Two complementary organisations—the productivity group movement and the Productivity Promotion Council of Australia are concerned with distinct areas of productivity promotion. Executive and administrative services for them are provided by the Department of Labour and National Service.

Productivity Group Movement. The role of productivity groups is to improve the productivity performance of individual member undertakings. Groups were first formed in New South Wales and Victoria in 1957 and were later established in all States. At 31 July 1971, there were 205 groups comprising 4,189 member undertakings throughout the nation.

A group consists of about twenty members whose representatives meet regularly to engage in the exchange of practical ideas and experiences and seek improvement in the effectiveness of members' operations. There are three main types of productivity groups: mixed industry groups which bring together knowledge and experience from a wide variety of fields; single industry groups whose members are in the one industry (for example, printing, transport, timber); and professional type groups comprising people such as production engineers and personnel managers.

In each State there is a Productivity Group Advisory Council which is a forum for the exchange of ideas among the groups and seeks to serve their common interests. At the national level there is a Productivity Groups National Committee on which each State Council is represented. This Committee publishes *Quest*, a quarterly news magazine for groups, arranges productivity group publications and films, and develops national themes and group expansion programmes.

Productivity Promotion Council of Australia. The complementary body is the Productivity Promotion Council of Australia which was inaugurated in September, 1969. It is concerned with community education in productivity, stimulation of senior management's interest in productivity promotion, and collaboration with other professional bodies in arranging joint activities on factors affecting productivity. It is also committed to help the expansion of the productivity group movement.

Membership of the Council is drawn from organisations, business concerns, government and semi-government bodies and individuals. Finance is provided by members' subscriptions on a sliding scale based on type and size of undertakings.

The Council operates through a National Committee, State Branch Committees and Standing Advisory Panels. The National Committee is composed of nominees from major national employer and employee associations, Commonwealth government departments and a number of individual experts. Branch committees have been established in New South Wales, Victoria, Queensland and South Australia.

Other Research (including joint projects)

Antarctic Research

Australia has participated in scientific research in the Antarctic region since 1911 through the Antarctic Division of the Department of Supply and now maintains permanent bases at Mawson, Davis and Casey on the Antarctic continent and one on Macquarie Island. Scientists from Government agencies and universities are engaged in continuing research programmes relating to many aspects of the Antarctic environment.

Space Projects

Australian participation in scientific projects making use of artificial earth satellites began with facilities established as a contribution to the programme of the International Geophysical Year (1957-58).

Deep-space tracking stations constructed and operated at a number of sites in Australia through joint arrangements with the United States have played an important role in the United States's manned space flight programmes.

Astronomy

One of Australia's significant contributions to scientific endeavour at the international level has been in the fields of optical and radio astronomy. Largely by expertise in these areas Australia plays a significant role in international space research. Programmes in optical astronomy have been in progress for many years. However, the growth of radio astronomy has occurred mainly since the 1939-45 War.

Mount Stromlo and Siding Spring Observatories. Mount Stromlo Observatory and Siding Spring Observatory are the two astronomical research stations of the Research School of Physical Sciences, Australian National University. The staff of the observatories are academic staff of the University's Institute of Advanced Studies. The permanent headquarters of the observatories are located at Mount Stromlo, together with the library, laboratories and offices of the scientific staff. The older telescopes are located on Mount Stromlo, the newer ones on Siding Spring Mountain. At Siding Spring there is a lodge to house the astronomers, permanently based at Mount Stromlo, who visit for short periods to make observations there.

The observatories constitute the principal centre of optical astronomical research in the southern hemisphere. Their research facilities are second only to the great observatories of the south-western United States, and because of their latitude observations can be made on parts of the sky permanently inaccessible to northern astronomers. The functions of the observatories are to carry out original investigations (both observational and theoretical) in astronomy and astrophysics, and to provide post-graduate training for future Australian astronomers.

The direction of the research conducted depends on the steadily widening interests of the staff and scholars as the subject of astronomy itself rapidly progresses. Areas of permanent interest to which the observatories have made important contributions include the evolution of stars and of stellar systems, the study of the Magellanic clouds and their globular star clusters, the chemical composition of the stars and the study of pulsating stars. The results of the work carried out at the observatories are published in international scientific periodicals, principally in the *Monthly Notices of the Royal Astronomical Society* and the *Astrophysical Journal*.

Mount Stromlo Observatory is situated at 35° 19' 16" south latitude and 149° east longitude at an altitude of 2,560 feet. It is on the summit of a ridge of low hills in the Australian Capital Territory seven miles west of the city of Canberra. The first regular scientific work was started at this site in 1925, and the Observatory was incorporated in the Australian National University in 1957. The main instruments are 30-inch, 50-inch and 74-inch reflecting telescopes and associated spectrographs, photometers and spectral scanners.

Siding Spring Observatory was established in 1965. It is located at 31° 16' south latitude and 148° 41' east longitude at an altitude of 3,820 feet and occupies the summit of Siding Spring Mountain in the Warrumbungle Ranges, near Coonabarabran, New South Wales. This site has one of the best climates for astronomical research to be found anywhere in Australia—considerably better than that at Mount Stromlo.

Early in 1967, the United Kingdom and the Australian Government agreed to collaborate in the construction and operation of a 150-inch optical telescope to be located at Siding Springs (New South Wales). The new instrument, when completed, will be one of the two largest optical telescopes in the Southern Hemisphere and will be exceeded in size by only one telescope in existence at the present time, the 200-inch instrument at Palomar, California. The new optical telescope will play an important part in complementing the work of the existing 210 feet radio telescope located at Parkes (New South Wales).

Agreement with United States

In the fields of civil science a formal agreement with the United States relating to scientific and technical co-operation was signed in October 1968. This agreement was to broaden and expand already existing co-operation between the Australian and American civilian scientific communities by providing additional channels for scientific collaboration in the civil field between the two countries. Since the signing of the agreement, co-operative research activities have been arranged in a number of fields including atmospheric sciences, arid lands research, problems of drug dependence, photosynthesis and biomedical research.

Funding of Scientific Research in Australia

A substantial proportion of the Commonwealth Government's overall financial support for research in Australia is devoted to research carried out within the Commonwealth's own agencies. In addition, the Commonwealth Government has established a number of fund granting schemes to promote research which is carried out in other sectors of the economy.

For example, support for research in the natural and social sciences and in the humanities is provided through the *Australian Research Grants Committee* which was established in 1965. The majority of the research supported under this scheme is carried out in the universities. Funds for allocation by the Committee are \$13.25 million for the 1970-72 triennium.

For over 30 years Commonwealth moneys have been allocated by the *National Health and Medical Research Council* for the support of medical research.

To encourage industrial research and development in Australia the Government introduced the *Industrial Research and Development Grants Act 1967*. The legislation, administered by the *Australian Industrial Research and Development Grants Board*, provides for the payment of grants to Australian manufacturing and mining companies for increased research and development expenditure.

Companies employing professional research staff are assisted in their own research and development, but the Act also provides for companies to contract research and development with approved research organisations.

The first grants to industry under this Act were made in 1968 and the Government provided \$17 million for this purpose in 1970-71. Special taxation concessions also apply to expenditure on research and development.

The Commonwealth Government also contributes to *Research Trust Funds* which obtain portion of their revenue from levies on production by particular industries. Allocations are made from these trust funds for research in the meat, wheat, rural, dairy, sugar, fisheries, tobacco and minerals industries.

Scientific societies

Royal Societies

The following table contains the latest available statistical information about the Royal Societies in each State and in the Australian Capital Territory.

ROYAL SOCIETIES, DECEMBER 1970

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.
Year of charter	1866	1859	1884	1880	1913	1844	1930
Number of members	346	597	275	300	248	552	143
Volumes of transactions issued(a)	103	84	81	94	59	104	..
Number of books in library	35,945	33,500	73,038	26,000	8,060	37,600	..
Societies on exchange list	395	336	301	368	247	320	..

(a) Cumulative total

Australian Academy of Science

The Australian Academy of Science is the national institution representing science in Australia. Constituted by Royal Charter in 1954, the Academy promotes scientific knowledge and research, maintains standards of scientific endeavour and achievement in the natural sciences in Australia, and recognises outstanding contributions to the advancement of science. The Academy represents Australian science and scientists at the national and international level, co-ordinates Australian contributions to international co-operative scientific ventures, organises meetings of scientists, holds symposia, and arranges for visits of scientists from other countries to Australia. It also administers research fellowships provided by industry.

Its Fellows (designated F.A.A.) are eminent in some branch of the physical or biological sciences in Australia, occupying professional positions in universities, the Commonwealth Scientific and Industrial Research Organization, other research organisations, and industry. A few places are reserved for Fellows who have rendered conspicuous service in the cause of science. No more than nine new Fellows are elected in any one year. Its present membership is 144 Fellows.

The Academy is financed by general purpose grants from the Commonwealth Government and considerable private benefactions. In 1970-71 the Academy received from the Government \$115,000, including \$55,300 for the International Biological Programme. The Academy is managed by an elected council comprising a president, treasurer, three secretaries and ten ordinary members who are drawn equally from the physical sciences and biological sciences. Chief administrative officer is the Executive Secretary, who is not a Fellow. Its conference centre and principal offices are in Canberra.

Australian and New Zealand Association for the Advancement of Science (ANZAAS)

This Association was founded in 1887. Its objects are 'the advancement of science and scholarship through the communication of knowledge and the promotion of a spirit of co-operation among scientific workers, scholars and those in sympathy with science and scholarship generally, especially in Australia, New Zealand and the Australian Territories'. The 44th ANZAAS Congress will be held in Sydney on 14 to 18 August 1972, and the 45th Congress will be held in Perth, 13 to 17 August 1973.

The ANZAAS Central Office is in Sydney and Divisions operate in New South Wales, Victoria, South Australia, Western Australia, Port Moresby and New Zealand.

Other scientific societies

The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874 for 'the cultivation and study of the science of natural history in all its branches'. The Society publishes proceedings, maintains a library, and offers research fellowships. Ninety-five volumes of proceedings have been issued and the library has some 50,000 volumes. The Linnean Macleay Fellowship for research in natural history is offered annually to graduates of the University of Sydney who are members of the Society and resident in New South Wales. The membership at the end of 1970 was 301.

The British Astronomical Society has a branch in Sydney and there are more than 200 other learned societies devoted to the study of particular sciences. Some of these, including the Royal Australian Chemical Institute and the Institution of Engineers, Australia, are qualifying bodies, admission to which is by qualification only. Others, such as the Institute of Food Technologists, are open to any interested person. Some societies, such as the Australian Biochemical Society, have annual symposia of a very high standard. A great many of these bodies publish appropriate journals.

The Australian Academy of the Humanities is concerned with the advancement of scholarship and of interest in an understanding of Language, Literature, History, Philosophy and the Fine Arts.

The Academy of the Social Sciences in Australia encourages the advancement of the social sciences in Australia and acts as the Australian member of international non-governmental organisations concerned with social sciences.