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CHAPTER 19

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. These bulletins comprise *Schools* (13.5), *University Statistics Parts 1, 2, 3* (13.7, 13.8, 13.9), *Colleges of Advanced Education* (13.10) and *Teacher Education* (13.12). The *Quarterly Summary of Australian Statistics* (1.3) contains summarised information on these subjects, and financial aspects are dealt with in the annual bulletins *Public Authority Finance—Commonwealth Authorities* (5.12), *Public Authority Finance* (5.33) *Public Authority Finance—State and Local Authorities* (5.43) and *Expenditure on Education* (5.44). The annual Reports of the respective State education departments provide detailed statistical and other information about particular States. The Commonwealth Department of Education issues publications on aspects of primary, secondary and tertiary education.

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.

Pre-school education and child care

Pre-school centres were first established in the Australian 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 the Education Department has accepted the responsibility for pre-school education. The development is towards incorporating pre-school education into primary schools rather than providing separate pre-school centres. In the internal Territories teachers are employed by the Commonwealth Department of Education; buildings are also provided in the Territories. In Queensland the State Government is also taking steps to provide pre-school education. In all cases parents assist in the provision of equipment.

Pre-school centres are situated in city and country areas and programs 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-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. Major developments have taken place recently in the fields of pre-schooling and child care. The Government announced in February 1973, the appointment of the Australian Pre-Schools Committee, which will become a commission after the passage of enabling legislation. The Committee is to recommend measures the Government should adopt to ensure that all children are given the opportunity to attend pre-school for one year and to establish child care centres for children below school age to meet the needs of children of working parents and under-privileged families. The assistance under the scheme is to begin on 1 January 1974 and priority will be given to establishing centres in localities where the need is greatest.

The previous Australian Government introduced a new scheme of direct financial assistance to eligible and approved non-profit making organisations and local government authorities for child care centres which provide full day care and give priority of admission to children in special need. An amount of \$5 million was set aside for this scheme in 1972-73, including \$200,000 for research. The present Government has since appointed the Child Care Standards Committee to advise it on

the establishment of standards and on the payment of grants. An Advisory Committee on Child Care Research has also been set up to recommend on the payment of grants for appropriate research projects.

It is proposed to incorporate the present Child Care Scheme into the new program of assistance to begin in 1974 which will result from the work of the Australian Pre-Schools Committee.

The Australian Pre-School Association is a national body representing the voluntary organisations who have as their main concern the welfare and education of children of pre-school age. With some financial assistance from the Commonwealth the Association co-ordinates pre-school work for which it sets standards. It administers and supervises the six Lady Gowrie Child Centres which were established by the Commonwealth in consultation with the Australian Pre-School Association in 1940.

Lady Gowrie Child Centres. These six Centres, one in each State capital city, were planned to give stimulus to progress in the field of child development, and this has led to the study of educational practice at the pre-school level. They provide opportunities for demonstration and research based on early childhood education. Committees of local management for each Centre include psychiatrists, paediatricians, nurses, social workers, educators and lay persons who, in consultation, have developed an education program based on child development. These Centres are financed mainly by Commonwealth grants. The Commonwealth contribution for 1972-73 was \$231,000.

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 program 'Kindergarten of the Air', a twenty-five minute session, broadcast throughout the country from Monday to Friday. The half-hour television program 'Play-School' is also available twice each week-day to children of kindergarten age in State capital cities and country areas.

Primary and Secondary Education

Legal basis and administrative responsibility for education

Constitutional authority for education rests primarily with the six State governments. The federal Department of Education is responsible for the administration of education in the internal territories (Northern Territory and Australian Capital Territory) (*see* the chapter The Territories of Australia) and is becoming increasingly involved in financing education throughout Australia (*see* pages 674-81).

Responsibility for framing educational policy and having it put into effect rests with the Minister for Education in each State who is a member of State Cabinet. The administrative authority in each State is a department of education established by an Act of Parliament and headed by a Director-General. The education departments are divided into divisions administering primary, secondary and technical education. (In New South Wales there is a separate Department of Technical Education; in South Australia the Department of Further Education is responsible for technical education.) Other divisions are responsible for such matters as teacher recruitment and in-service training, audio-visual education, curriculum and research, education of atypical children, physical education, psychology and guidance. In addition to the central organisation which serves the State, regional offices of education have been created in New South Wales, Victoria, Queensland, South Australia, and Tasmania under a policy of decentralisation of administration.

During the nineteenth century, the six Australian States established government departments responsible through parliament for the provision of formal education as follows:

New South Wales. The Public Instruction Act, 1880 established a Department of Public Instruction. An amendment to the Act in 1916 made schooling compulsory.

Victoria. The *Victorian Education Act* 1872 provided for the establishment of an education department, a State Minister for Education and made schooling in Victoria free, compulsory and secular. The Act dates from the first of January 1873.

Queensland. The *Education Act of 1875* established the Department of Public Instruction administered by a responsible Minister of the Crown. The provision in the Act for compulsory schooling was not fully enforced until 1 May 1900.

South Australia. The *Compulsory Education Act 1875* established a Council of Education to administer public schools and made attendance compulsory (70 days in each half year) for all children between the ages of 7 and 13.

Western Australia. The *Education Act 1893* established a Department of Education to replace the central Board of Education established under the *Education Act 1871*. An amendment to the 1893 Act made enforcement of compulsory education more effective in 1899, although the *Education Act 1871* had provided for a degree of compulsion.

Tasmania. The *Education Act 1885* established an education department responsible to a Minister of the Crown. Compulsory schooling was adopted in 1869.

School attendance is compulsory throughout Australia between the ages of 6 and at least 15 in New South Wales, Victoria, Queensland and South Australia, until the year in which a student turns 15 in Western Australia, and until the age of 16 in Tasmania. The various Education Acts require that all children between the prescribed ages must attend either a government school or some other recognised educational institution. Exemptions may be granted on the grounds of physical isolation from school, physical disability or family hardship. Education by correspondence is available to exempted students from State education departments.

Commencement of the school year varies between States and usually occurs between the end of January and mid-February. The year usually ends in mid-December for the long summer vacation. Two short vacations divide the school year into three terms.

Government Schools

Government primary schools usually have mixed classes of boys and girls. At the secondary level practices vary, but the trend is towards co-educational schools.

Tuition at government primary schools is free in all States. Parents are expected to bear the cost of textbooks, uniforms and personal equipment and to pay fees for the use of sports equipment and other facilities. However, these expenditures are tax deductible and the cost of textbooks is in some States subsidised by the government.

Legislation in Queensland and Victoria makes provision for the registration of teachers in government schools. All teachers in South Australia will be registered from 1974. No registration of teachers is yet required in New South Wales, Western Australia and Tasmania.

Non-government schools

Approximately 20 per cent of Australian children attend non-government primary and secondary schools, sometimes known as 'private' or 'independent' schools. The majority of the schools are conducted by, or are under the auspices of, various religious denominations, particularly the Roman Catholic Church (about 80 per cent in 1972), 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 secondary schools have tended to cater for boys and girls separately, but recently a few major schools have become co-educational. The schools follow curricula similar to those laid down by State education departments and prepare their students for examinations conducted by public examining bodies. The methods adopted by education authorities to ensure an acceptable standard of education at non-government schools vary from State to State. New schools are inspected and approved by the State education department. The nature of this approval varies but generally the education department must be satisfied that the education provided is efficient and regular and that the buildings and facilities are suitable.

The States of Victoria and Tasmania require teachers at non-government schools to be registered.

Non-government schools charge tuition fees and, where applicable, boarding fees. Payment is not insisted on in some Roman Catholic parish schools in cases of family hardship, and at the majority of non-government secondary schools, privately endowed scholarships are available and fees are normally reduced for children of clergy and where two or more members of one family attend the same school.

Certain State government scholarships and bursaries are tenable at approved non-government secondary schools. Since 1967, State governments and the Commonwealth Government have introduced direct assistance to non-government schools, usually in the form of student allowances. Most State governments also assist non-government schools with approved building projects. For details of Commonwealth government assistance for the building and equipping of science laboratories and libraries at secondary schools, *see* page 673.

Primary education

Although school attendance is not compulsory until the age of 6, most Australian children begin at about 5 in infants schools or classes attached to the primary school. In some States, the first year of the infants department is known as kindergarten. The emphasis in these infants classes, which cover two or three years, is given to games, the development of social attitudes and the informal side of education. There is a gradual movement towards more formal activities in the second and third years, and at the same time creative expression in painting, drawing, handwork, dancing and dramatisation is encouraged.

Children attend primary schools in their own districts on five days each week, and the school day is generally broken up into three or four sessions with breaks between. Daily instruction lasts for about five hours, made up of twenty or thirty minute lessons, and special periods are set aside for

physical education and sport. In general, a class is taken by one teacher who teaches all the subjects set out in the curriculum for that particular grade. However, in some areas new primary schools are being built according to the 'open plan' concept. This allows for more flexible teaching arrangements, where two or more teachers may supervise up to 70 pupils, who are divided into smaller groups during the day for separate activities, including individual study.

Syllabuses of instruction, with emphasis on basic or 'tool' subjects, social studies, and the English language, are drawn up by the education departments, although the teacher may be free to modify the course. In some of the more progressive primary schools, new or more advanced courses in subjects such as foreign languages, science and mathematics are being introduced to prepare children more thoroughly for secondary schooling. Increasing use is being made in the classroom of television, films, tape-recorders and other modern teaching aids.

When primary education has been successfully completed, usually after seven years, the child progresses automatically to a nearby secondary school. Factors determining the type of secondary school a child attends may include the headmaster's recommendations, tests of ability and achievement, the child's wishes and those of his parents.

Secondary education

In secondary schools children do not usually remain in the one class all day, as they do not all study the same subjects. The subjects offered include a number already studied in primary school, such as English, physical education and music, and new ones such as foreign languages, technical and commercial subjects, along with more detailed and specialised studies in science, history, geography and mathematics. Each school day is divided into 'periods' and the students are taught by a number of teachers, each specialising in a particular group of subjects. In some secondary schools the program in the junior forms is based upon integrated studies and aims at developing pupil-centred activities.

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, 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, however, separate high schools specialising in technical, agricultural, commercial or home science fields; some of the agricultural high schools are residential. The curriculum in these specialist schools consists of general academic subjects combined with practical training.

In New South Wales, the Conservatorium High School provides a full six-year secondary course for students who intend to pursue careers in music.

There are also schools in country centres known variously as 'area', 'consolidated', 'district' and 'rural' schools, some of which offer up to four years of secondary study. Matriculation colleges have been developed in major population centres in Tasmania, providing the final two years of secondary schooling. Secondary colleges are also being established in the Australian Capital Territory.

A diagram of State and territorial school systems showing grades, examinations and ages, is shown on plate 37, page 646.

Examinations

For information on examination procedures up to 1971, see Year Book No. 55, pages 485-6 and Year Book No. 57, page 629.

Traditionally, public examinations set by central examining authorities in each State at junior and senior secondary levels controlled and influenced the curricula to a very large extent. In recent years the junior level examinations, taken at the end of the third, fourth or fifth year of secondary schooling, have been abolished, and their place has been taken by internal school examinations and school assessment. While the senior level examination, taken in the final year and used for matriculation purposes, is still retained in most States, there is a trend towards the abolition of external examinations at this level also. These changes in the examination systems have allowed the development of more broadly-based curricula designed to meet the varying needs, interests and abilities of the students, an increasing proportion of whom are staying on at school beyond the minimum leaving age.

In general, students in the early years of secondary schooling study a basic core of subjects together with some electives, specialisation taking place at a later stage in the course. Experimental projects in curriculum development are being carried out, and individual schools and teachers have more freedom in choosing their educational programs. Certificates awarded at the end of secondary schooling are: New South Wales and the Australian Capital Territory, Higher School Certificates; Victoria, Higher School Certificate; Queensland, Senior; South Australia, and Northern Territory, Matriculation; Western Australia, Leaving; Tasmania, Higher School Certificate.

Special facilities for students

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. The curriculum of schools in distinctive Aboriginal communities is adapted to the background and the needs of the children; for example, bilingual education and an emphasis upon traditional arts, crafts and skills are features of an increasing number of Northern Territory schools in Aboriginal towns on reserves. There is unrestricted opportunity for academic progress for Aboriginal students with the ability to proceed through high school to tertiary education. This progress is encouraged and assisted by an Australia-wide Commonwealth Government scheme of Aboriginal secondary grants available to all secondary school children of Aboriginal descent on a non-competitive basis, and an Aboriginal Study Grants Scheme of similar scope covering fees and allowances in respect of tertiary courses. These two schemes form part of the assistance, financial and otherwise, provided by the Commonwealth in the field of Aboriginal education following the 1967 Referendum and Constitution Alteration (Aboriginals) 1967 (see also Scholarships and bursaries below). Commonwealth grants to the States for educational projects designed for the benefit of Aboriginal students totalled \$2,887,000 in 1972-73, a considerable proportion of this sum being devoted to the extension and development of pre-schooling facilities.

School broadcasting. Both radio and television school broadcasts continue to be used extensively by schools. They are produced by the Australian Broadcasting Commission in co-operation with the State Education Authorities and, as a result of the increasing number of transmitting stations, are now available to almost all schools in the Commonwealth. Approximately 96 per cent of schools make some use of the radio programs and about 75 per cent, of television. During the year almost 3,000 radio programs and about 300 television programs were produced and, in addition, over 200 television programs, relevant to Australian needs, were purchased overseas. The increasing use of audio and videotape recorders by schools, especially in secondary departments, gives a flexibility of usage that has greatly increased the utilisation of programs. 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 Security (previously Department of Social Services), in conjunction with the Commonwealth Departments of Health and of Education (previously Department 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. Assistance to eligible institutions training handicapped children is also available under the *Handicapped Children (Assistance) Act* 1970 (see also page 673). From 1974 the Australian Government will provide substantial additional grants specifically for the education of handicapped children by State and voluntary authorities, and for the training of teachers of the handicapped.

Scholarships and bursaries

All States have schemes of financial assistance to school students, 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 allowances 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 students with their school education. Many non-government schools also award scholarships, on a competitive basis, which enable students to attend those 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 program of secondary scholarships to encourage successful candidates to complete the final two years of secondary schooling. From the beginning of 1973, this scheme is being phased out and being replaced by the Commonwealth Senior Secondary Scholarship Scheme. Further details of both Schemes are given on page 665.

Various forms of financial assistance, both government and non-government, are available to help Aborigines to undertake further studies. In 1972, over 700 scholarships were awarded by ABSCHOL, a scholarship scheme organised by the Australian Union of Students; 1000 primary and 218 secondary scholarships were provided by the Aboriginal Education Incentive Scholarship Fund in Victoria; and 97 scholarships (23 primary, 71 secondary and 3 adult) were provided by the Aboriginal Education Council in New South Wales. See page 666 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.

Assistance for children living in remote areas.

In 1973 the Australian Government introduced a scheme of financial assistance to enable children living in isolated areas to have improved educational opportunities. Benefits include allowances of up to \$1,004 per annum, of which \$350 is free of means test, for pupils who must live away from home to attend school. Assistance of up to \$350 per annum is paid to pupils taking studies through State education department correspondence schools.

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 and library facilities in secondary schools, see page 673.

Textbooks, materials and other equipment

The State education departments supply government schools free of charge with essential equipment including scientific apparatus, maps, blackboards, chalk, cleaning materials, and non-consumable equipment for commercial, home science and technical subjects. Garden tools and physical training equipment are also supplied in most States. Readers and writing equipment for individual students 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 students. In several States, schools own stocks of textbooks which are hired to students, and in one State, secondary textbooks are sold at reduced prices. In four States certain textbook costs are subsidised for students attending government and non-government schools. The parent 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.

Teaching aids

Each State education department has a branch producing and distributing teaching aids. Film strips and posters are distributed free or at low cost. Films are held in central libraries and are requisitioned by schools as required for teaching purposes. Some central libraries are able to provide copies of audio and videotape recordings. Commonwealth financial assistance under the Secondary Schools Libraries Program is available to State education departments for a range of audio-visual equipment.

Parent organisations

In Australia, where all government schools are administered by central departments, there is limited opportunity for local participation in education. However, increasing involvement of members of the community in education is being actively encouraged in a number of States and in the Territories. 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. The associations do not exercise authority over the staff for the management of the school. 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 children for accidents which may 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 State School Organisations.

Many non-government schools also have parents associations, which may raise funds for special projects.

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 institutes such as the Victorian Institute for Educational Research, by research faculties and departments of education in universities, by colleges of advanced education, by the Commonwealth Department of Education and by the Australian Council for Educational Research.

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 the States. Three such proposals are at present receiving Commonwealth financial support. They are:

Australian Science Education Project. This project is developing science learning materials for the first four years of secondary school. The Australian Government will contribute \$875,000 to the cost of the Project, and the States \$525,000, over the five-year period commencing in 1969. The Project will complete its scheduled task in March 1974.

National Committee on Social Science Teaching. This Committee was established in 1970 as a joint project between the Australian Government and the States to help foster development and improvement in the teaching of social science in Australian schools.

Asian languages and cultures. The report of the Advisory Committee on the Teaching of Asian Languages and Cultures, a Committee set up by the Australian Government in 1969, was tabled in Parliament in March 1971. As a result of the Committee's findings the Australian Government agreed in 1972 to contribute \$1.5 million over five years to a joint program with the States in this area of the curriculum. A joint Australian Government-States committee has been established to co-ordinate this program.

In June 1973 the Australian Government announced that it was establishing, in co-operation with the States, a curriculum development centre to undertake and promote curriculum development and to develop and assess teaching materials. The centre will be funded by the Australian Government.

Numbers of schools, teachers and students

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 students 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 students

The statistics of government and non-government schools, teachers and students in 1972 and earlier years are shown in the following tables. For more detailed statistics, see annual bulletin *Schools* (13.5).

NUMBERS OF SCHOOLS, TEACHERS AND STUDENTS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1972

	Non-government schools							Total	All schools
	Denominational								
	Government schools	Church of England	Methodist	Presbyterian	Roman Catholic	Other	Undenominational		
SCHOOLS									
New South Wales	2,335	36	6	12	644	26	94	818	3,153
Victoria	2,194	32	4	11	473	28	22	570	2,764
Queensland	1,229	13	(a)	4	291	19	12	339	1,568
South Australia	615	10	3	2	118	22	8	163	778
Western Australia	606	10	3	2	165	10	7	197	803
Tasmania	239	4	1	2	45	6	1	59	298
Northern Territory	90	..	2	..	12	1	4	19	109
Australian Capital Territory	54	3	..	..	20	1	1	25	79
Australia—1972	7,362	108	19	33	1,768	113	149	2,190	9,552
1971	7,404	107	20	33	1,769	113	142	2,184	9,588
1970	7,470	108	19	33	1,781	112	127	2,180	9,650
1969	7,541	110	18	34	1,785	109	119	2,175	9,716
1968	7,629	113	20	38	1,807	112	93	2,183	9,812

TEACHERS(b)									
New South Wales	36,558	1,006	194	374	7,111	166	621	9,472	46,030
Victoria	30,160	1,211	253	561	5,171	509	369	8,074	38,233
Queensland	13,454	360	(a)	55	2,690	217	261	3,585	17,039
South Australia	10,767	251	123	99	999	131	120	1,722	12,489
Western Australia	7,761	285	122	105	1,204	51	22	1,789	9,550
Tasmania	3,786	96	23	44	392	95	7	655	4,442
Northern Territory	831	..	18	..	87	9	4	(c)118	949
Australian Capital Territory	1,230	114	..	..	333	1	6	454	1,684
Australia—1972	104,547	3,323	733	1,238	17,986	1,178	1,410	25,869	130,416
1971	99,011	3,266	750	1,201	17,270	1,118	1,285	24,889	123,901
1970	95,382	3,152	741	1,214	16,577	1,057	1,215	23,956	119,338
1969	91,888	3,006	711	1,165	15,413	993	1,136	22,423	114,311
1968	87,560	2,942	693	1,171	15,002	974	1,053	21,835	109,394

STUDENTS (SCHOOL CENSUS)									
New South Wales	779,854	14,642	3,006	5,752	188,274	2,634	7,092	221,400	1,001,254
Victoria	602,614	17,717	4,224	8,391	149,273	7,431	5,119	192,155	794,769
Queensland	306,570	5,729	(a)	977	75,462	4,199	4,645	91,012	397,582
South Australia	232,812	3,859	2,221	1,594	26,106	2,509	1,400	37,689	270,501
Western Australia	183,539	4,210	2,050	1,508	33,001	1,037	492	42,298	225,837
Tasmania	78,212	1,557	327	538	9,859	1,339	171	13,791	92,003
Northern Territory	16,799	..	493	..	2,321	236	26	3,076	19,875
Australian Capital Territory	28,541	1,802	..	..	8,618	22	147	10,589	39,130
Australia—1972	2,228,941	49,516	12,321	18,760	492,914	19,407	19,092	612,010	2,840,951
1971	2,196,571	49,010	12,309	18,645	494,725	18,755	17,630	611,074	2,807,645
1970	2,160,177	48,315	12,266	18,664	493,849	18,007	16,955	608,056	2,768,233
1969	2,113,963	47,376	12,086	18,623	491,219	17,299	16,395	602,998	2,716,961
1968	2,054,788	46,741	12,055	18,634	490,838	16,889	15,766	600,923	2,655,711

(a) There are no Methodist schools in Queensland. Schools conducted by the Presbyterian and Methodist Schools Association are included with 'other'. (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.

NUMBERS OF TEACHERS: STATES AND TERRITORIES, 1972(a)

	Government schools			Non-government schools			All schools		
	Part-time			Part-time			Part-time		
	Full-time	No.	Equiv. f.t.u. (b)	Full-time	No.	Equiv. f.t.u. (b)	Full-time	No.	Equiv. f.t.u. (b)
New South Wales	34,970	2,882	1,588	8,725	2,184	747	43,695	5,066	2,335
Victoria	27,756	(c)4,308	(c)2,404	7,499	1,636	575	35,255	5,944	2,978
Queensland	13,454	(d)	(d)	3,385	823	200	16,839	823	200
South Australia	10,253	920	514	1,505	586	217	11,758	1,506	731
Western Australia	7,610	362	151	1,659	433	130	9,269	795	281
Tasmania	3,729	159	57	565	215	90	4,294	374	148
Northern Territory(e)	819	27	12	115	7	3	934	34	15
Australian Capital Territory	1,183	84	47	418	96	36	1,601	180	83
Australia—1972	99,774	8,742	4,773	23,871	5,980	1,998	123,645	14,722	6,771
1971	94,731	8,300	4,280	22,988	5,773	1,901	117,719	14,073	6,182
1970	92,022	6,851	3,359	22,187	5,963	1,769	114,209	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

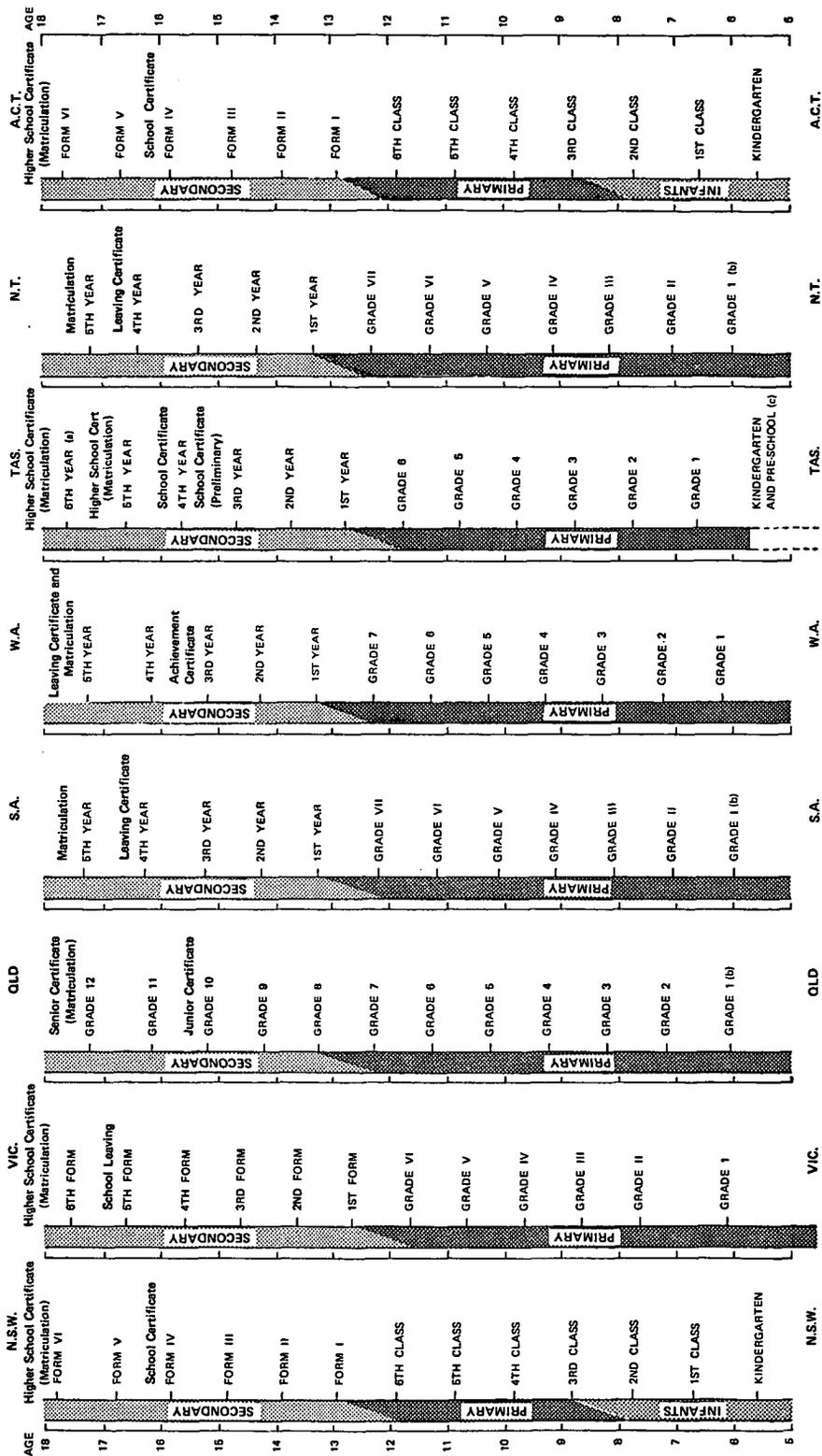
(a) Excludes teachers-in-training generally. (b) The methods used for calculating equivalent full-time units of part-time teaching vary from State to State, between government and non-government schools, and between primary and secondary schools within States. For most schools the information is based 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) 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. (d) Since 1969, the Queensland Education Department has employed only full-time teachers. (e) Unqualified teachers and teaching assistants at mission schools are excluded.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: STUDENTS, BY SEX, STATES AND TERRITORIES, 1972
(School census enrolment)

	Government schools			Non-government schools			All schools		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
New South Wales	406,926	372,928	779,854	111,606	109,794	221,400	518,532	482,722	1,001,254
Victoria	315,876	286,738	602,614	94,368	97,787	192,155	410,244	384,525	794,769
Queensland	159,694	146,876	306,570	46,009	45,003	91,012	205,703	191,879	397,582
South Australia	121,738	111,074	232,812	18,539	19,150	37,689	140,277	130,224	270,501
Western Australia	96,496	87,043	183,539	20,164	22,134	42,298	116,660	109,177	225,837
Tasmania	40,775	37,437	78,212	6,566	7,225	13,791	47,341	44,662	92,003
Northern Territory	8,600	8,199	16,799	1,510	1,566	3,076	10,110	9,765	19,875
Australian Capital Territory	14,567	13,974	28,541	5,634	4,955	10,589	20,201	18,929	39,130
Australia—1972	1,164,672	1,064,269	2,228,941	304,396	307,614	612,010	1,469,068	1,371,883	2,840,951
1971	1,149,493	1,047,078	2,196,571	303,474	307,600	611,074	1,452,967	1,354,678	2,807,645
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	1,107,082	1,006,881	2,113,963	299,102	303,896	602,998	1,406,184	1,310,777	2,716,961
1968	1,076,999	977,789	2,054,788	297,446	303,477	600,923	1,374,445	1,281,266	2,655,711

GRADES AND EXAMINATIONS IN THE PRIMARY AND SECONDARY SCHOOL SYSTEMS IN EACH STATE AND TERRITORY, 1972

The grade terminology follows, as nearly as possible, that used in government primary and high schools in each State in 1972. 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 students 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. 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 students study for the Higher School Certificate over a two year period.
 (b) Preparatory grades are attached to some schools in Queensland, South Australia and the Northern Territory.
 (c) In Tasmania, many students attend two years pre-school, one year kindergarten grade, or one year of both, before entering grade 1.

PLATE 37

**GOVERNMENT AND NON-GOVERNMENT SCHOOLS: STUDENTS, BY AGE AND SEX
AUSTRALIA, 1972**
(School census enrolment)

Age last birthday (years)	Government schools			Non-government schools			All schools		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Under 6	82,678	77,626	160,304	20,225	20,496	40,721	102,903	98,122	201,025
6	97,743	91,853	189,596	23,043	23,277	46,320	120,786	115,130	235,916
7	98,605	92,534	191,139	24,291	24,295	48,586	122,896	116,829	239,725
8	102,757	95,798	198,555	24,878	25,163	50,041	127,635	120,961	248,596
9	104,636	98,006	202,642	25,478	25,996	51,474	130,114	124,002	254,116
10	105,987	99,194	205,181	25,970	26,619	52,589	131,957	125,813	257,770
11	105,864	98,212	204,076	26,630	27,233	53,863	132,494	125,445	257,939
12	101,770	94,285	196,055	26,566	28,129	54,695	128,336	122,414	250,750
13	100,036	92,602	192,638	25,995	27,529	53,524	126,031	120,131	246,162
14	97,298	89,610	186,908	25,346	26,954	52,300	122,644	116,564	239,208
15	78,375	69,065	147,440	22,974	23,946	46,920	101,349	93,011	194,360
16	51,462	40,644	92,106	17,342	16,415	33,757	68,804	57,059	125,863
17	27,007	19,791	46,798	11,889	9,507	21,396	38,896	29,298	68,194
18	8,702	4,403	13,105	3,074	1,694	4,768	11,776	6,097	17,873
19 and over	1,601	507	2,108	695	361	1,056	2,296	868	3,164
Total	1,164,672	1,064,269	2,228,941	304,396	307,614	612,010	1,469,068	1,371,883	2,840,951
	(a)	(a)	(a)				(a)	(a)	(a)

(a) Includes 290 primary students (151 males, 139 females) in South Australia, whose ages are not known.

SCHOOLS: STUDENTS, BY AGE, STATES AND TERRITORIES, 1972
(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	79,251	62,219	19,345	18,986	8,760	6,169	2,944	3,351	201,025
6	81,198	65,499	34,389	22,020	20,123	7,181	2,097	3,409	235,916
7	81,907	66,931	35,057	22,591	20,487	7,575	1,919	3,258	239,725
8	85,510	68,272	37,167	22,943	21,155	8,168	1,974	3,407	248,596
9	88,121	69,029	37,884	23,656	21,977	8,241	1,798	3,410	254,116
10	90,231	69,628	38,498	23,975	21,754	8,473	1,728	3,483	257,770
11	89,588	69,812	38,303	24,415	21,717	8,937	1,754	3,413	257,939
12	87,101	67,012	38,121	24,032	21,376	8,356	1,554	3,198	250,750
13	84,933	67,079	36,787	23,793	20,896	8,230	1,334	3,110	246,162
14	83,294	65,347	35,301	23,074	19,937	8,063	1,185	3,007	239,208
15	69,464	55,708	24,803	19,446	14,898	6,705	902	2,434	194,360
16	43,782	40,771	13,547	13,540	8,223	3,605	470	1,925	125,863
17	26,977	21,281	6,796	5,775	4,114	1,772	169	1,310	68,194
18	8,850	5,032	1,346	1,438	385	400	41	381	17,873
19 and over	1,047	1,149	238	527	35	128	6	34	3,164
Total	1,001,254	794,769	397,582	270,501	225,837	92,003	19,875	39,130	2,840,951
				(a)					(a)

(a) Includes 290 primary students (151 males, 139 females) whose ages are not known.

Universities

Applicants for enrolment in Australian universities are required to have reached matriculation standard, usually 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.

In 1972 there were fifteen operative universities in Australia. Details of the courses offered by these universities, together with background information on their teaching and research programs, and a summary of general university development in recent years are given in Year Book No. 55, pages 507-9. By 1975, two new universities will be taking students, the Griffith University in Queensland and the Murdoch University in Western Australia. In addition, the Wollongong University College will become an autonomous university in 1975.

The following tables show statistics of university staff, student enrolments, assisted students, degrees conferred, diplomas and certificates awarded, 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 1-3* (13.7, 13.8, 13.9) for further details.

UNIVERSITIES: SUMMARY STUDENT AND STAFF STATISTICS FOR EACH UNIVERSITY AND BRANCH, 1972

	Students enrolled(a) for			All students	Teaching staff(b)		Non-teaching staff	
	Higher degree courses	Bachelor degree courses	Non-degree courses		Full-time	Part-time(c)	Full-time	Part-time(d)
University of Sydney	2,533	13,185	1,390	17,108	1,073	1,339	2,243	109
University of New South Wales—								
Kensington	1,901	12,701	1,541	16,143	993	852	1,840	88
Wollongong University College	103	1,305	78	1,486	93	30	117	8
Broken Hill Division	7	88	11	106	13	10	33	..
Duntroon	6	327	..	333	60	5	2	..
Jervis Bay . . . . .	..	17	..	17	(e)	(e)	(e)	(e)
Total University of New South Wales	2,017	14,438	1,630	18,085	1,159	898	1,992	97
University of New England	390	5,055	753	6,198	361	83	770	44
University of Newcastle	290	3,185	283	3,758	237	197	275	13
Macquarie University	546	5,034	205	5,785	392	143	547	43
Total New South Wales	5,776	40,897	4,261	50,934	3,222	2,659	5,827	307
University of Melbourne	1,764	11,891	1,361	15,016	926	1,362	1,935	43
Monash University	1,155	9,539	939	11,633	789	538	1,635	211
La Trobe University	265	3,624	413	4,302	293	85	547	119
Total Victoria	3,184	25,054	2,713	30,951	2,008	1,986	4,117	374
University of Queensland	1,187	15,040	903	17,130	980	831	1,788	169
James Cook University	158	1,287	16	1,461	146	67	279	1
Total Queensland	1,345	16,327	919	18,591	1,126	898	2,067	170
University of Adelaide	954	6,896	729	8,579	560	609	1,102	163
Flinders University	192	2,102	251	2,545	204	143	361	73
Total South Australia	1,146	8,998	980	11,124	764	752	1,463	236
University of Western Australia	642	7,231	780	8,653	507	573	1,045	105
University of Tasmania	202	2,744	425	3,371	248	60	387	34
Australian National University—								
Institute of Advanced Studies	350	..	9	359	..	..	1,392	..
School of General Studies	390	3,968	327	4,685	339	75	375	..
Total Australian Capital Territory	740	3,968	336	5,044	(f)343	(f)98	(g)2,632	(g)15
Total all universities	13,035	105,219	10,414	128,668	8,216	7,026	17,538	1,240

(a) Statistics 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 level. (b) Excludes research only staff. (c) Expressed as units of 100 teaching hours per annum. (d) Equivalent full-time units. (e) No university staff are attached to the R.A.N. College, Jervis Bay. (f) Includes 4 full-time and 23 part-time positions not allocated to either the Institute or the School. (g) Includes 865 full-time and 15 part-time positions not allocated to either the Institute or the School.

UNIVERSITIES: TEACHING AND RESEARCH STAFF(a), 1972

	Full-time teaching staff(b)							Part-time research staff(e)	Part-time research staff(e)(f)
	Professors	Associate professors and readers	Senior lecturers and lecturers	Assistant lecturers, demonstrators, etc.(c)	Total	Part-time teaching staff(d)	Full-time research staff(e)		
New South Wales	309	321	1,771	821	3,222	2,659	305	22	
Victoria	216	186	1,150	455	2,008	1,986	218	28	
Queensland	96	123	579	328	1,126	898	208	17	
South Australia	100	86	448	131	764	752	89	8	
Western Australia	55	59	277	116	507	573	73	5	
Tasmania	33	24	135	56	248	60	13	1	
Australian Capital Territory	44	38	196	65	343	98	645	..	
Australia—1972	853	837	4,555	1,971	8,216	7,026	1,550	81	
1971	821	765	4,393	1,856	7,835	7,136	1,385	72	
1970	799	714	4,130	1,724	7,367	6,845	1,345	54	
1969	777	638	4,011	1,593	7,018	6,423	1,268	55	
1968	721	582	3,706	1,479	6,487	6,264	1,155	45	

(a) Occupied positions. (b) Excludes research only staff which are shown separately. (c) Includes tutors and teaching fellows. (d) Expressed in units of 100 teaching hours per annum. (e) Excludes research technical staff. (f) In equivalent full-time units of 35 hours per week.

University students enrolled

UNIVERSITIES: STUDENTS ENROLLED(a), 1972

	Degree courses		Diploma courses		Certi- ficate courses	Other courses (b)	Adjusted total(c)
	Higher degree	Bachelor degree	Post- graduate	Sub- graduate			
New South Wales . . .	5,784	41,022	2,694	9	410	1,258	50,934
Victoria	3,198	25,960	1,614	257	..	1,028	30,951
Queensland	1,345	16,327	503	19	..	397	18,591
South Australia	1,146	9,029	685	17	1	338	11,124
Western Australia . . .	642	7,243	440	..	..	365	8,653
Tasmania	202	2,744	258	5	3	159	3,371
Australian Capital Territory	740	3,975	..	..	..	357	5,044
Australia—1972 . . .	13,057	106,300	6,194	307	414	3,902	128,668
1971	12,469	102,644	5,271	404	455	3,853	123,776
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

(a) Statistics 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. (c) Adjusted for students enrolled for more than one course. Where course levels differ, the adjustment is made against the lesser level.

Of the students enrolled in 1972, 86,540 were males and 42,128 were females.

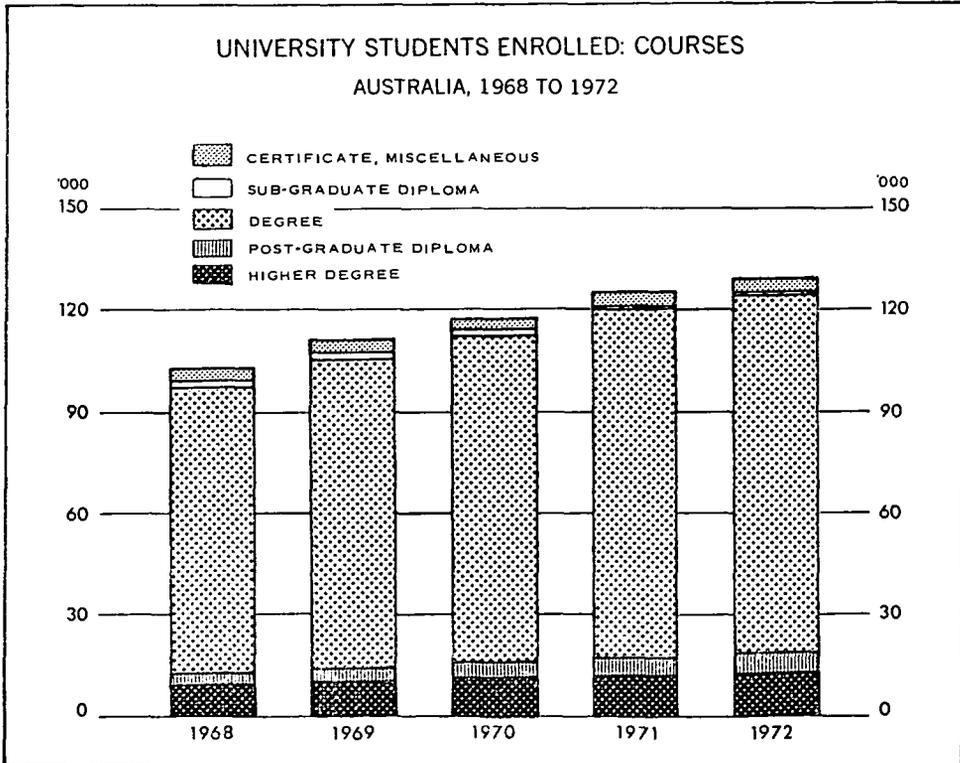


PLATE 38

University students commencing courses

UNIVERSITIES: ENROLMENTS OF STUDENTS COMMENCING HIGHER DOCTOR, PH.D., MASTER AND BACHELOR DEGREE COURSES FOR THE FIRST TIME IN ANY AUSTRALIAN UNIVERSITY, 1972(a)

	Higher doctor degree courses	Ph.D. degree courses	Master degree courses	Bachelor degree courses	Total
New South Wales	6	236	1,235	10,735	12,212
Victoria	10	243	740	7,122	8,115
Queensland	16	134	270	3,355	3,775
South Australia	8	108	166	2,378	2,660
Western Australia . . . . .	..	63	119	1,931	2,113
Tasmania . . . . .	..	16	31	712	759
Australian Capital Territory . . . . .	..	129	90	850	1,069
Australia—1972	40	929	2,651	27,083	30,703
1971	41	796	2,253	26,433	29,523
1970	27	856	1,990	26,305	29,178

(a) Statistics shown refer to gross enrolments, i.e. students enrolled for two or more courses are included in each course for which they are enrolled.

Of students commencing higher and bachelor degree courses in 1972, 19,415 were males and 11,008 were females.

Full-time and other university students by level of course

UNIVERSITIES: FULL-TIME AND PART-TIME STUDENTS ENROLLED BY COURSE LEVEL AND SEX OF STUDENT(a), 1968 TO 1972

Level of course	Males					Females				
	1968	1969	1970	1971	1972	1968	1969	1970	1971	1972
FULL-TIME										
Higher degree	3,413	3,756	3,963	4,293	4,295	591	703	783	889	973
Bachelor degree	39,597	42,469	45,374	47,311	48,851	16,674	18,634	21,137	23,863	25,698
Post-graduate diploma	861	911	968	1,148	1,544	1,098	1,276	1,053	1,731	2,270
Sub-graduate diploma	255	155	145	67	64	612	491	424	153	110
Certificate	242	438	255	368	294	39	67	36	46	55
Other	250	244	231	318	382	219	248	239	309	281
Total enrolments	44,618	47,973	50,936	53,505	55,430	19,233	21,419	23,672	26,991	29,387
Number of students(b)	43,911	47,285	50,290	52,829	54,612	18,824	21,063	23,355	26,608	28,983
PART-TIME(c)										
Higher degree	4,345	5,073	5,685	6,032	6,429	881	1,032	1,118	1,255	1,360
Bachelor degree	20,508	21,556	22,118	22,232	21,902	7,538	8,079	8,728	9,238	9,849
Post-graduate diploma	1,119	1,437	1,492	1,561	1,532	518	605	646	831	848
Sub-graduate diploma	450	362	264	141	98	308	196	157	43	35
Certificate	131	110	75	29	62	47	20	13	12	3
Other	2,175	2,192	2,089	2,154	2,084	1,018	934	972	1,072	1,155
Total enrolments	28,728	30,730	31,733	32,149	32,107	10,310	10,866	11,634	12,451	13,250
Number of students(b)	28,559	30,537	31,557	31,971	31,928	10,243	10,777	11,576	12,368	13,145
ALL ENROLMENTS										
Higher degree	7,758	8,829	9,648	10,325	10,724	1,472	1,735	1,901	2,144	2,333
Bachelor degree	60,105	64,025	67,492	69,543	70,753	24,212	26,713	29,865	33,101	35,547
Post-graduate diploma	1,980	2,348	2,460	2,709	3,076	1,616	1,881	1,699	2,562	3,118
Sub-graduate diploma	705	517	409	208	162	920	687	581	196	145
Certificate	373	548	330	397	356	86	87	49	58	58
Other	2,425	2,436	2,320	2,472	2,466	1,237	1,182	1,211	1,381	1,436
Total enrolments	73,346	78,703	82,659	85,654	87,537	29,543	32,285	35,306	39,442	42,637
Number of students(b)	72,470	77,822	81,847	84,800	86,540	29,067	31,840	34,931	38,976	42,128

(a) Statistics for 1968 and 1969 refer to the situation at 30 June; and those for 1970, 1971 and 1972 refer to 30 April. (b) Adjusted for students enrolled for more than one course. (c) Includes external students.

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 665. 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 university staff, teachers, etc.

UNIVERSITIES: SOURCE OF STUDENT ASSISTANCE, 1972

	<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>Other</i>
New South Wales	15,439	1,127	18,452	789	31,474	2,631	33,176
Victoria	11,246	6,688	8,725	235	20,977	1,849	25,045
Queensland	5,658	747	1,609	210	8,224	720	7,504
South Australia	3,841	2,651	1,240	115	7,783	821	7,026
Western Australia	2,835	5,000	246	115	8,182	570	7,626
Tasmania	1,185	621	52	85	1,885	100	1,843
Australian Capital Territory	1,609	313	692	21	2,447	760	1,875
Australia—1972	41,813	17,147	31,016	1,570	80,972	7,451	84,095
1971	39,206	18,724	26,384	1,668	75,282	6,896	79,086
1970	35,008	17,641	22,979	1,607	67,334	6,537	70,698
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

(a) Adjusted for students receiving assistance from more than one source or for more than one course.

University degrees conferred, and diplomas and certificates awarded

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES AWARDED YEAR ENDED 30 JUNE 1972

	<i>Degrees</i>				<i>Total</i>	<i>Diplomas</i>		<i>Certificates</i>
	<i>Higher doctor</i>	<i>Ph.D.</i>	<i>Master</i>	<i>Bachelor</i>		<i>Post-graduate</i>	<i>Sub-graduate</i>	
New South Wales	23	231	650	6,368	7,272	349	4	290
Victoria	15	174	288	4,366	4,843	837	156	..
Queensland	6	64	97	2,272	2,439	266	33	161
South Australia	12	72	42	1,689	1,815	237	50	..
Western Australia	3	48	46	1,036	1,133	227	..	..
Tasmania . . . . .	..	9	9	537	555	109	4	20
Australian Capital Territory . . . . .	..	127	54	609	790	..	..	..
Australia—1972	59	725	1,186	16,877	18,847	3,025	247	471
1971	59	658	1,067	14,994	16,778	2,551	302	467
1970	54	609	888	13,484	15,035	2,324	328	550
1969	53	490	811	13,360	14,714	2,237	406	673
1968	31	475	740	11,576	12,822	1,939	557	471

University income and expenditure

UNIVERSITIES: INCOME, 1971

(\$'000)

	Government grants(a)		Other income			Total income
	Cwth Government grants	State Government grants	Donations and endowments(b)	Student fees(c)	Other income	
New South Wales	37,714	41,978	7,185	10,518	5,019	102,413
Victoria	27,512	29,198	2,711	9,294	5,017	73,732
Queensland	10,937	12,734	3,422	4,568	544	32,206
South Australia	9,750	11,455	976	2,216	1,187	25,583
Western Australia	5,599	7,488	1,300	2,293	894	17,573
Tasmania	2,622	2,900	67	1,062	274	6,925
Australian Capital Territory	33,071	..	621	951	2,827	37,470
Australia—1971	127,204	105,752	16,283	30,900	15,761	295,902
1970	108,539	87,796	11,832	27,368	13,661	249,195
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

(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 investments 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, 1971

(\$'000)

	Teaching and research	Administration and general overhead	Libraries	Buildings, premises, grounds	Sundry auxiliary expenditure	Total expenditure
New South Wales	58,743	8,655	5,105	21,397	5,971	99,870
Victoria	40,557	6,039	3,650	18,031	4,443	72,720
Queensland	19,739	2,426	1,489	7,514	818	31,987
South Australia	15,245	1,774	1,380	6,278	729	25,405
Western Australia	10,468	1,341	829	3,207	1,381	17,227
Tasmania	4,298	599	455	1,260	278	6,891
Australian Capital Territory	21,678	2,958	1,335	6,548	3,512	36,030
Australia—1971	170,729	23,793	14,242	64,235	17,132	290,129
1970	151,879	20,563	11,957	50,606	13,518	248,524
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

Colleges of advanced education

The Committee on the Future of Tertiary Education in Australia recommended that the tertiary level of education in Australia outside the universities should be further expanded and developed. As a result, the Commonwealth Advisory Committee on Advanced Education was set up in 1965. The Advisory Committee was replaced in 1971 by the Australian Commission on Advanced Education which continues to advise the Australian Government on the development of colleges of advanced education which provide training with a vocational emphasis.

In some States the colleges have been developed from existing technological institutions. The diploma-awarding schools or sections of technical institutions were generally separated from the trade, certificate and other sections of technical education, and were developed as colleges of advanced education receiving Commonwealth financial assistance. New colleges of advanced education have also been established.

Many colleges cater for a number of vocations in fields such as accountancy, architecture, art, applied sciences, building, business administration, data processing, domestic science, engineering, librarianship, medical laboratory technology, metallurgy, nutrition, pharmacy, teacher education and textile sciences. Other colleges of advanced education are specialist institutions, such as agricultural colleges, art schools, conservatoria of music, schools of paramedical studies and colleges offering courses in forestry and horticulture.

Administrative developments have occurred in the States to co-ordinate the activities of colleges of advanced education. Advanced Education Boards have been established in New South Wales, Queensland and South Australia. In Victoria, there is the Victoria Institute of Colleges. Tasmania has a Council of Advanced Education. In some States provision is also being made for co-ordination of all tertiary education, for example, by the establishment of the Higher Education Authority in New South Wales and the Tertiary Education Commission in Western Australia.

An Australian Council on Awards in Advanced Education has been established by joint action of the six States and the Commonwealth. One of the functions of the Council is to promote consistency throughout Australia in the nomenclature and standards used for awards in advanced education. It aims to do this by consultation between the States and Commonwealth accrediting agencies in the field of advanced education.

Further information about the development of colleges of advanced education can be found in the reports of the Australian Commission on Advanced Education and its predecessor, the Commonwealth Advisory Committee on Advanced Education, in particular the *First Report, 1967-69*, the *Second Report, 1970-72*, and the *Third Report, 1973-75*. Details of the maximum Commonwealth grants for the development of the colleges are given on page 670.

The following statistics refer to the operative institutions listed in the States Grants (Advanced Education) Act for 1970-72 as colleges of advanced education and the Canberra College of Advanced Education.

COLLEGES OF ADVANCED EDUCATION: FIRST ENROLMENTS BY FIELD OF STUDY, STATES AND A.C.T., 1972

Field of study	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Australia			
								Males	Females	Persons	
Agriculture	195	138	103	67	36	..	..	474	65	539
Applied sciences	98	879	337	125	249	8	215	1,636	275	1,911	
Art and design	136	898	..	75	176	53	..	620	718	1,338	
Building, surveying and architecture	167	504	111	180	157	42	..	1,030	131	1,161	
Commercial and business studies . .	1,038	3,003	643	497	1,179	98	311	5,847	922	6,769	
Engineering and technology	424	1,839	275	301	361	64	..	3,238	26	3,264	
Liberal studies	25	857	..	81	603	22	171	811	948	1,759	
Music	26	..	34	..	..	11	..	22	49	71
Para-medical	329	601	80	168	201	55	..	401	1,033	1,434	
Teacher education	975	..	267	..	..	331	259	630	1,202	1,832
Total	1972	3,413	8,719	1,850	1,494	2,962	684	956	14,709	5,369	20,078
	1971	2,544	8,019	1,462	1,501	2,329	495	961	13,030	4,281	17,311

COLLEGES OF ADVANCED EDUCATION: TOTAL ENROLMENTS, BY TYPE OF ENROLMENT AND FIELD OF STUDY, STATES AND A.C.T., 1972

Field of study	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Australia		
								Males	Females	Persons
FULL-TIME										
Agriculture	355	269	272	93	65	..	..	946	108	1,054
Applied sciences	92	1,197	517	129	261	3	202	2,016	385	2,401
Art and design	310	1,563	..	217	260	88	..	1,159	1,279	2,438
Building, surveying and architecture	74	593	..	215	282	87	..	1,088	163	1,251
Commercial and business studies	371	2,984	363	282	676	30	171	3,839	1,038	4,877
Engineering and technology	203	3,500	573	366	498	41	..	5,149	32	5,181
Liberal studies	23	560	..	120	466	18	157	568	776	1,344
Music	199	..	97	..	..	26	..	95	227	322
Para-medical	607	1,082	150	325	369	75	..	655	1,953	2,608
Teacher education	1,788	..	263	..	..	836	331	898	2,320	3,218
<i>Total enrolments</i> —1972	4,022	11,748	2,235	1,747	2,877	1,204	861	16,413	8,281	24,694
1971	2,403	10,605	1,719	1,766	2,129	609	544	13,847	5,928	19,775
<i>Number of students(a)</i> —1972	4,015	11,748	2,235	1,747	2,868	1,204	861	16,404	8,274	24,678
1971	2,403	10,605	1,719	1,766	2,129	609	544	13,847	5,928	19,775
PART-TIME										
Agriculture . . . . .	..	31	4	..	3	..	..	35	3	38
Applied sciences	278	1,377	292	176	321	56	406	2,569	337	2,906
Art and design	14	678	..	49	159	55	..	504	451	955
Building, surveying and architecture	453	852	444	238	216	3	..	2,074	132	2,206
Commercial and business studies	1,759	4,645	1,026	1,300	1,500	243	579	10,285	767	11,052
Engineering and technology	1,018	2,627	477	565	548	152	..	5,365	22	5,387
Liberal studies	22	1,029	..	110	550	4	197	1,011	901	1,912
Music	2	..	1	..	..	7	..	5	5	10
Para-medical	105	313	95	106	80	52	..	284	467	751
Teacher education	393	..	4	..	..	35	64	319	177	496
<i>Total enrolments</i> —1972	4,044	11,552	2,343	2,544	3,377	607	1,246	22,451	3,262	25,713
1971	3,339	10,396	2,086	2,476	2,980	826	1,089	20,529	2,663	23,192
<i>Number of students(a)</i> —1972	4,044	11,552	2,343	2,544	3,212	607	1,246	22,323	3,225	25,548
1971	3,339	10,396	2,086	2,476	2,980	826	1,089	20,529	2,663	23,192
EXTERNAL										
Agriculture . . . . .	..	2	..	..	1	..	..	3	..	3
Applied sciences . . . . .	..	36	..	..	63	..	..	86	13	99
Art and design . . . . .	..	..	..	..	37	..	..	17	20	37
Building, surveying and architecture . . . . .	..	30	..	..	12	..	..	40	2	42
Commercial and business studies	290	350	..	..	418	..	..	981	77	1,058
Engineering and technology . . . . .	..	35	..	..	11	..	..	45	1	46
Liberal studies . . . . .	..	125	..	..	179	..	..	197	107	304
Para-medical . . . . .	..	261	..	..	6	..	..	99	168	267
Teacher education	132	..	..	..	..	..	..	47	85	132
<i>Total enrolments</i> —1972	422	839	..	..	727	..	..	1,515	473	1,988
1971	94	724	..	..	566	..	..	1,084	300	1,384
<i>Number of students(a)</i> —1972	422	839	..	..	693	..	..	1,487	467	1,954
1971	94	724	..	..	566	..	..	1,084	300	1,384
ALL ENROLMENTS										
Agriculture	355	302	276	93	69	..	..	984	111	1,095
Applied sciences	370	2,610	809	305	645	59	608	4,671	735	5,406
Art and design	324	2,241	..	266	456	143	..	1,680	1,750	3,430
Building, surveying and architecture	527	1,475	444	453	510	90	..	3,202	297	3,499
Commercial and business studies	2,420	7,979	1,389	1,582	2,594	273	750	15,105	1,882	16,987
Engineering and technology	1,221	6,162	1,050	931	1,057	193	..	10,559	55	10,614
Liberal studies	45	1,714	..	230	1,195	22	354	1,776	1,784	3,560
Music	201	..	98	..	..	33	..	100	232	332
Para-medical	712	1,656	245	431	455	127	..	1,038	2,588	3,626
Teacher education	2,313	..	267	..	..	871	395	1,264	2,582	3,846
<i>Total enrolments</i> —1972	8,488	24,139	4,578	4,291	6,981	1,811	2,107	40,379	12,016	52,395
1971	5,836	21,725	3,805	4,242	5,675	1,435	1,633	35,460	8,891	44,351
<i>Number of students(a)</i> —1972	8,481	24,139	4,578	4,291	6,773	1,811	2,107	40,214	11,966	52,180
1971	5,836	21,725	3,805	4,242	5,675	1,435	1,633	35,460	8,891	44,351

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

COLLEGES OF ADVANCED EDUCATION: TEACHING STAFF, BY SUBJECT FIELD
STATES AND A.C.T.(a), 1972

(Advanced level work of full-time and part-time teaching staff expressed in equivalent full-time units and rounded to whole numbers)

	<i>N.S.W.(b)</i>	<i>Vic.</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T.</i>
FULL-TIME STAFF						
Agriculture	74	43	11	7	..	..
Applied sciences	102	336	38	56	8	31
Art and design	23	179	20	20	15	..
Building, surveying and architecture .	20	59	25	32	4	..
Commercial and business studies . .	49	242	32	79	7	24
Engineering and technology	44	376	93	69	18	..
Liberal studies	10	120	18	46	..	34
Music	19	..	..	..	9	..
Para-medical	31	83	32	43	10	..
Teacher education	19	..	..	..	44	20
<i>Total—1972</i>	<i>(b)486</i>	<i>1,438</i>	<i>267</i>	<i>352</i>	<i>115</i>	<i>109</i>
1971	339	1,293	249	309	88	77
PART-TIME STAFF						
Agriculture	1	4	2	..	..	..
Applied sciences	14	48	4	8	2	6
Art and design	27	23	6	8	5	..
Building, surveying and architecture .	6	27	3	8	..	..
Commercial and business studies . .	13	46	6	17	5	6
Engineering and technology	10	42	5	5	4	..
Liberal studies	3	20	6	7	1	16
Music	18	..	..	..	3	..
Para-medical	7	6	15	6	1	..
Teacher education	1	..	..	..	7	3
<i>Total—1972</i>	<i>100</i>	<i>215</i>	<i>46</i>	<i>59</i>	<i>27</i>	<i>31</i>
1971	90	165	47	36	42	15
ALL STAFF						
Agriculture	75	46	13	7	..	..
Applied sciences	116	384	41	64	10	37
Art and design	50	203	26	28	20	..
Building, surveying and architecture .	26	86	28	40	4	..
Commercial and business studies . .	62	288	37	96	12	30
Engineering and technology	55	418	97	74	22	..
Liberal studies	13	141	24	53	1	50
Music	37	..	..	..	12	..
Para-medical	38	89	46	49	11	..
Teacher education	20	..	..	..	51	23
<i>Total—1972</i>	<i>(b)586</i>	<i>1,654</i>	<i>313</i>	<i>411</i>	<i>142</i>	<i>140</i>
1971	428	1,458	297	345	130	92

(a) Statistics comparable with other States are not available for Queensland. In 1972 the number of staff teaching at Queensland colleges of advanced education was 396 full-time and 546 part-time. These statistics include staff engaged in teaching in courses which were not at an advanced level. (b) Includes 95 full-time teaching staff at the Mitchell College of Advanced Education for whom details of subject field are not available.

Teacher education

State education departments recruit most prospective teachers for government service from students leaving school 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.

Until now, State education departments have conducted teachers colleges to train teachers for government schools. However, significant developments have occurred since 1970. Some teachers colleges have either been incorporated within colleges of advanced education or have themselves become colleges of advanced education providing courses other than teacher education. From 1973 the other government teachers colleges will progressively become independent of State education departments. In most States the activities of the autonomous teachers colleges will be co-ordinated by the State advanced education authorities referred to on page 653; in two states there will be new statutory authorities to co-ordinate the activities of teachers colleges—in Victoria the State College of Victoria and in Western Australia the Teacher Education Authority. This development in the organisation of teachers colleges will be accompanied by an important change in the financing of the colleges. Commonwealth financial assistance to the States for teachers colleges has been in respect of building projects; for details of Commonwealth grants *see* page 671. From July 1973 Commonwealth financial assistance will be extended to cover the whole range of the teachers colleges activities, as in the case with universities and colleges of advanced education; this assistance will be provided under the advanced education legislation.

In 1972 there were 9 government teachers colleges in New South Wales, 14 in Victoria, 4 in Queensland, 5 in South Australia, 5 in Western Australia. Excluding kindergarten teachers colleges (*see* page 659) there were 7 private colleges in New South Wales, 6 in Victoria, 2 in Queensland and 1 in the Australian Capital Territory.

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 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 teacher 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 undertaking teacher education courses in government and non-government colleges from 1969 to 1972. The figures exclude enrolments of practising and newly qualified teachers, and those teachers at short refresher courses and summer schools. They also exclude non-award students enrolled in part-time courses at the Technical Teachers College, Victoria.

TEACHER EDUCATION(a): ENROLMENTS BY AFFILIATION AND SEX
1969 TO 1972

	1969		1970		1971		1972		
	Males	Females	Males	Females	Males	Females	Males	Females	Persons
DEPARTMENTAL STUDENTS									
New South Wales	3,650	6,344	4,321	7,226	5,501	9,403	6,829	10,782	17,611
Victoria(b)	4,590	7,157	4,924	8,195	(c)5,132	8,701	5,746	9,596(c)	15,342
Queensland	966	2,655	1,128	2,797	1,307	3,051	1,672	3,362	5,034
South Australia	1,484	2,299	1,571	2,701	1,768	3,014	1,956	3,354	5,310
Western Australia	797	1,452	832	1,680	885	1,944	1,079	2,281	3,360
Tasmania	355	769	422	776	470	862	479	889	1,368
<i>Total</i>	<i>11,842</i>	<i>20,676</i>	<i>13,198</i>	<i>23,375</i>	<i>15,063</i>	<i>26,975</i>	<i>17,761</i>	<i>30,264</i>	<i>48,025</i>
Courses for primary teaching . .	2,840	10,269	3,251	11,184	3,577	12,603	4,226	13,946	18,172
Courses for secondary teaching(b)	8,741	10,061	9,923	12,146(c)	11,463	14,334	13,535	16,316(c)	29,851
Courses not classifiable as primary or secondary teaching	261	346	24	45	23	38	..	2	2
<i>Total</i>	<i>11,842</i>	<i>20,676</i>	<i>13,198</i>	<i>23,375</i>	<i>15,063</i>	<i>26,975</i>	<i>17,761</i>	<i>30,264</i>	<i>48,025</i>
Enrolled at government teachers college and not enrolled else- where	4,692	12,249	5,198	13,496	(c)6,306	15,062	7,137	15,938(c)	23,075
Enrolled at university or other institution— Also enrolled at teachers college	6,101	7,134	6,483	8,005	6,328	8,365	7,391	9,200	16,591
Not enrolled at teachers college	1,049	1,293	1,517	1,874	2,429	3,548	3,233	5,126	8,359
<i>Total</i>	<i>11,842</i>	<i>20,676</i>	<i>13,198</i>	<i>23,375</i>	<i>15,063</i>	<i>26,975</i>	<i>17,761</i>	<i>30,264</i>	<i>48,025</i>
PRIVATE STUDENTS									
Enrolled at government teachers college	214	373	227	327	169	386	273	669	942
Enrolled at private teachers college	394	1,190	366	1,586	417	1,732	490	1,657	2,147
<i>Total</i>	<i>608</i>	<i>1,563</i>	<i>593</i>	<i>1,913</i>	<i>586</i>	<i>2,118</i>	<i>763</i>	<i>2,326</i>	<i>3,089</i>
Courses for primary teaching . .	310	1,217	295	1,587	301	1,822	393	1,894	2,287
Courses for secondary teaching . .	274	284	273	270	271	196	332	243	575
Courses not classified as primary or secondary teaching	24	62	25	56	14	100	38	189	227
<i>Total</i>	<i>608</i>	<i>1,563</i>	<i>593</i>	<i>1,913</i>	<i>586</i>	<i>2,118</i>	<i>763</i>	<i>2,326</i>	<i>3,089</i>
ALL STUDENTS									
Courses for primary teaching . .	3,150	11,486	3,546	12,771	3,878	14,425	4,619	15,840	20,459
Courses for secondary teaching . .	9,015	10,345	10,196	12,416(c)	11,734	14,530	13,867	16,559(c)	30,426
Courses not classifiable as primary or secondary teaching	285	408	49	101	37	138	38	191	229
<i>Total</i>	<i>12,450</i>	<i>22,239</i>	<i>13,791</i>	<i>25,288</i>	<i>15,649</i>	<i>29,093</i>	<i>18,524</i>	<i>32,590</i>	<i>51,114</i>

(a) Excludes 877 students enrolled at kindergarten teachers colleges in 1969; 977 in 1970; 1,069 in 1971; and 1,216 in 1972. (b) Includes students at Technical Teachers College in Victoria gaining industrial experience, who were previously excluded. (c) Includes 366 males undertaking a two year part-time course at the Technical Teachers College in 1971, and 400 in 1972.

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 A COURSE, 1972**

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia		
							Males	Females	Persons
Enrolled in the first year of a course	5,457	(a)5,250	1,961	1,851	1,409	352	6,101	10,179	16,280
Enrolled in the final year of a course.	4,075	(a)3,497	1,023	1,255	931	395	3,734	7,442	11,176

(a) Includes 217 and 183 males who are undertaking a two-year part-time course at the Technical Teachers College, for the first year, and the final year of a course, respectively.

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 and 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 means 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 lectures and tradesmen-teachers receive an in-service course of teacher training in general education theory and training method, while correspondence courses and visiting lecturers assist the newly appointed tradesman-teacher in country colleges. Variations of 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 junior-secondary or primary teachers has been undertaken by Catholic teachers colleges.

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 teacher trainees who will eventually teach in 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, 1972

	Enrolments			Students in final year of a course		
	Males	Females	Persons	Males	Females	Persons
For primary teaching . . .	241	1,526	1,767	70	364	434
For secondary teaching . . .	221	65	286	51	31	82
Not classifiable as primary or secondary teaching . . .	28	66	94	3	24	27
Total	490	1,657	2,147	124	419	543

(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.

For details of Commonwealth financial assistance to teachers colleges *see* page 672.

Pre-school teachers colleges

With the exception of Tasmania, each State has a pre-school or kindergarten teacher/training college which provides a three-year diploma course for teachers of children in the 3-8 year age group. In Tasmania and the Australian Capital Territory, pre-school teacher training is provided by three-year courses at the Tasmanian College of Advanced Education and the Canberra College of Advanced Education, respectively.

In Victoria, the Melbourne Kindergarten Teachers College is an autonomous institution administered by an independent college council. In New South Wales, Queensland, South Australia and Western Australia the colleges have traditionally been the responsibility of the Kindergarten Union in each of those States; it is expected that in future the pre-school teachers colleges in at least some of these States will gain autonomy or become associated with other tertiary institutions.

In 1972 there were 1,216 students (all female) enrolled for diploma courses at kindergarten teachers colleges, of whom 301 were in their final year.

The Commonwealth Government has provided grants for building projects at pre-school teachers colleges; for details of this financial assistance *see* page 672. From July 1973 the Commonwealth Government will provide grants, under the advanced education legislation, for the capital development and running costs of pre-school teachers colleges.

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.

The following is an outline of the administration of, and some recent developments in, technical education in each State.

New South Wales has a separate State Department of Technical Education under the Minister for Education. A Technical Education Council advises the Minister, and there is also an advisory council or committee for each technical college, established on a local basis to assist the principal in determining the needs of his own area. These bodies include representatives from industry and commerce.

Victoria. The larger colleges are controlled by their own councils and are affiliated with the Victoria Institute of Colleges. These colleges are at present responsible to the Victoria Institute of Colleges for the development and operation of tertiary courses and to the Education Department for the conduct of non-tertiary courses.

Government-controlled colleges are administered by the Technical Education Division of the Education Department. In general, diploma awarding schools or sections of technical institutions are in the process of being separated from the trade, certificate and other sections of technical education, and are being developed as colleges of advanced education. They are now receiving Commonwealth assistance for this purpose.

Queensland. Technical colleges in Queensland are administered by a branch of the State Education Department. This branch also administers the Technical Correspondence School which provides instruction in many courses to students in remote areas. Those institutions offering diploma courses in technological fields are now colleges of advanced education, which function as autonomous institutions and receive Commonwealth financial assistance. At present, they also offer technical courses at the certificate level.

South Australia. Technical colleges are administered by the State Department of Further Education. For a number of years, the South Australian Institute of Technology has offered courses which lead to a level of qualification below that of full professional status. The courses provide for those employed in the area between the tradesman and the professionally qualified person.

Western Australia. Technical schools, colleges and education centres are administered by a division of the Western Australian Education Department and offer a wide range of technician and vocational courses related to commerce, industry, agriculture and the home. In addition, the Technical Educational Division offers study programs for students undertaking the examinations of other examining bodies, as well as general education and leisure-type activities. The Technical Extension Service of the Division offers a wide range of correspondence instruction.

Tasmania. Technical education is controlled by the Tasmanian Education Department through a Board of Technical Education whose chief administrative officer is the Director of the Technical Education Branch. There are technical colleges in five centres: Hobart, Launceston, Devonport, Burnie, and Queenstown. The Tasmanian College of Advanced Education is being developed and since January 1972 has taken over all diploma courses. Technical colleges will in future be concerned with apprenticeship/trade, post-trade and technical courses, and commercial and general courses at the certificate level.

The numbers of colleges, teachers and enrolments in each State and Territory during 1971, and for Australia for the period 1967 to 1971 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 653-5.

TECHNICAL EDUCATION: COLLEGES, TEACHERS AND ENROLMENTS
STATES AND TERRITORIES, 1971

	Colleges	Teachers			Students enrolled		
		Full-time	Part-time	Total	Males	Females	Persons
New South Wales(a)(b)(c)(d)	62	2,120	4,922	7,042	108,917	60,289	169,206
Victoria(e)	98	4,997	3,236	8,233	n.a.	n.a.	67,192
Queensland(d)	18	800	1,286	2,086	27,721	4,300	32,021
South Australia(d)	29	663	1,456	2,119	n.a.	n.a.	43,398
Western Australia(d)(f)(g)	87	1,099	2,009	3,108	43,472	26,924	70,396
Tasmania	7	189	565	754	5,972	1,905	7,877
Northern Territory	2	20	241	261	2,340	3,463	5,803
Australia—1971	303	9,888	13,715	23,603	n.a.	n.a.	395,893
1970	292	9,176	12,294	21,470	n.a.	n.a.	387,812
1969	296	8,826	11,615	20,441	n.a.	n.a.	398,578
1968	275	9,041	11,888	20,929	n.a.	n.a.	389,309
1967	230	8,071	11,290	19,361	n.a.	n.a.	376,915

(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 7,512 in 1971; 6,877 in 1970; 6,105 in 1969; 5,956 in 1968; and 5,578 in 1967. (c) Figures include teachers and students at 137 associated centres and 4 mobile units. (d) Includes correspondence course teachers and students. (e) Prior to 1969 statistics included tertiary students and teachers teaching tertiary courses at colleges affiliated with the Victoria Institute of Colleges, and the Emily McPherson College. 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.

Commonwealth assistance to technical education is shown on page 671.

Agricultural and forestry education

There are agricultural faculties in universities in all States. Ten of the faculties provide various degree courses in agricultural science and agricultural economics and there are also three faculties of veterinary science in New South Wales, Victoria and Queensland. Besides undergraduate courses, these faculties collectively provide a wide range of post-graduate diploma courses as well as facilities for training for higher degrees. A fourth veterinary science school in Western Australia will enrol its first students in 1975.

At least one government agricultural college in each State, except Tasmania, is a college of advanced education. The primary role of these colleges is to train students for professional extension work or technology roles in the agricultural services. An exception is Muresk in Western Australia which, like Marcus Oldham (an independent college in Victoria), places emphasis on farm management. The new Orange Agricultural College in New South Wales will also concentrate on farm management training.

At the sub-tertiary level, other colleges in New South Wales, Victoria and Queensland teach the principles and practices of agriculture and farm management to those intending to take up farming as a career. A similar scheme is proposed for Tasmania. There is also a wide range of technical training available.

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

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 armed forces 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, engineering or surveying 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. Courses at the Australian Joint Services Staff College commenced in January 1970. The College provides higher training for selected Service officers, certain officers of the Commonwealth employed in Departments associated with defence matters and selected students from other countries. College courses cover political, defence and economic subjects and are of six months duration. Educational training is also provided in the apprentice training schools conducted by each of the 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 1972 there were 47 students enrolled, of whom 8 were Royal Australian Air Force personnel. For further information on Service training and educational facilities, see Chapter 4, Defence.

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, 1972**

<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 . . .	72	72	71
Joint Services Staff College . . .	55	55	55
Royal Australian Air Force Staff College	30	30	29
Officer cadets—			
Royal Australian Navy—			
Royal Naval College . . .	171	65	34
H.M.A.S. <i>Lonsdale</i> . . .	17	10	2
Royal Military College . . .	355	123	60
Royal Australian Air Force(b)—			
R.A.A.F. Academy . . .	106	32	18
APPRENTICES AND OTHER RECRUITS(c)			
Royal Australian Navy—			
Naval artificer apprentices . . .	265	110	157
School of Technical Training . . .	33	22	11
Junior recruits . . .	776	776	559
Topmen scheme . . .	78	37	46
Academic Instructors(d) . . .	4	2	..
Army Apprentice School . . .	570	13	281
Royal Australian Air Force—			
School of Technical Training . . .	369	157	100
School of Radio . . .	115	48	29

(a) Includes 367 cadets enrolled for university courses and 132 enrolled at an institute of technology. (b) Excludes 132 R.A.A.F. Diploma Squadron cadets enrolled at colleges of advanced education. (c) Includes 115 apprentices enrolled at a technical college or institute of technology. (d) Non-commissioned officers engaged on part-time instructional duties and part-time study at teachers training college.

The Australian School of Pacific Administration

The Australian School of Pacific Administration, which used to train students in the various aspects of service and administration in Commonwealth Territories including teaching, is now an important centre concentrating on administrative and specialised training to prepare Papua New Guinean public servants. For details of its new role, see Chapter 28, The Territories of Australia.

Because of a change in role, most of the existing training activities for both Papua New Guinea and the Northern Territory undertaken at the School of Pacific Administration are being phased out. In 1972, the School trained 53 Australians doing final year teacher training before commencing service in Papua New Guinea and the Northern Territory. The School also undertook training of Australians for service as patrol officers in Papua New Guinea and Aboriginal welfare officers in the Northern Territory.

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.

Post-school study courses

As part of the quarterly population survey (*see* Chapter 20, 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.

Migrant education

The Department of Immigration is responsible for migrant education as part of its responsibility for migrant integration generally. Migrant education includes not only the teaching of English but also counselling and instruction to prepare migrants for life in their new environment and to assist them to integrate more quickly into the Australian community.

Following a major review of migrant education early in 1970, increasing emphasis has been placed upon accelerated and more specialised forms of instruction and on developing courses designed to meet the varying needs of individual groups of migrants. The program now includes full-time intensive courses for professional and other well-educated migrants, accelerated courses particularly suited to workers and migrant women, special courses for migrants in industry, daytime classes for migrant women and a special language program for migrant children in government and independent schools.

The child migrant education program

The child migrant education program involves the Australian Government in reimbursing government and non-government school authorities for the costs of teaching English to migrant children. Expenditure on this program was \$5.1 million in 1972-73 and is estimated to be \$8.4 million in 1973-74. The Government will also be providing \$2 million in 1973-74 to meet the cost of supplementary classroom accommodation where this is necessary to allow special migrant instruction to take place.

Courses in English are arranged in conjunction with State education departments, colleges of advanced education and other approved educational bodies. Advice on aspects of teaching English, co-operation in the arrangement of teacher training courses and the production of suitable teaching and learning materials is provided by the Department of Education.

The Australian Government allocates funds to the Intergovernmental Committee for European Migration which, in Greece, Italy, Germany and Austria, provides pre-embarkation class and correspondence instruction for intending migrants to Australia. The Department itself arranges language and orientation courses in Turkey, France and Yugoslavia and distributes a recorded introductory English language course in Finland. The Governments of Holland, Belgium and Spain assist with courses conducted in these countries. Language instruction is given by Departmental Education Officers on ships carrying significant numbers of non-English speaking migrants to Australia.

A radio/correspondence course in English is conducted in Australia in co-operation with the ABC and in May 1971 an educational television program was commenced by arrangement with Station Channel WIN 4 Wollongong.

The *Immigration (Education) Act* 1971 was introduced to give legislative authority for the ongoing program. The Act came into force on 12 May 1971.

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 below*), since its inception in Australia, has been interested in adult education.

Overseas students

Information about overseas students in Australia is available from three statistical series. The Department of Education 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 1972, there were 1,785 government sponsored overseas students in institutions of higher learning, and 597 other government sponsored students. These figures exclude some personnel of overseas armed forces taking courses at Australian Defence Colleges. Altogether, there were 2,382 government sponsored overseas students in Australia in 1972. Students under the Colombo Plan Technical Co-operation Scheme numbered 1,687. The largest numbers of government sponsored students came from Malaysia, Indonesia, South Vietnam, and Thailand.

The Department of Immigration prepares statistics of overseas students in Australia who have been admitted under the *Private Overseas Student Programme*. In 1972, there were 9,995 students (6,611 males and 3,384 females) undertaking courses or training in Australia under the Programme; 5,571 from Malaysia, 1,117 from Hong Kong, and 775 from Singapore. Courses chosen were mainly in engineering and building (1,814), economics and commerce (1,408), medicine (including para-medical) and dentistry (1,832), and general and school courses (2,101).

Overseas students enrolled for advanced level courses in Australian education institutions are enumerated annually. The institutions reported 8,080 enrolments in 1972, 6,297 at universities, 1,537 at colleges of advanced education and 246 at other institutions.

Organisations associated with education

Australian Council for Educational Research

The Australian Council for Educational Research, a non-government 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 28, *The Territories of Australia*; various schools and colleges for the Defence Services are referred to on pages 661-2, 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 674-81.

Department of Education

The Commonwealth Department of Education (formerly the Department of Education and Science), 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 education institutions. It administers per-capita grants to non-government (i.e. independent) schools for running costs and is involved in curriculum development projects. The Department is responsible for the various Commonwealth scholarship schemes 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 and develops courses and materials for migrant education. It administers educational services in the Australian Capital Territory, (including Jervis Bay) and the Northern Territory.

For detailed information on the Acts administered by the Commonwealth Department of Education see the Australian Government Directory, 1973.

Advisory bodies

Various advisory bodies on educational matters have been established by the Australian Government:

Australian Committee on Child Care Research, Australian Advisory Committee on Research and Development in Education, Australian Committee on Technical and Further Education, Australian Pre-Schools Committee, Australian Universities Commission, Child Care Standards Committee, General Committee on the Scheme of Commonwealth Co-operation in Education and the Interim Committee for the Australian Schools Commission.

Scholarship Schemes

Commonwealth scholarships. The Commonwealth Government provides financial assistance to students through several major scholarship schemes. A total of 48,800 new awards were made available in 1973 under these schemes.

Under the *Commonwealth Post-graduate Research Awards Scheme*, 700 new awards were made available in 1973 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 1973, 100 awards were made available under the 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 \$2,900 per annum and certain other allowances.

The *Commonwealth University Scholarship Scheme* made provision for 14,500 scholarships in 1973. Of these, 9,500 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 5,000 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 \$1,300 per annum in the case of scholars living away from their parents and \$800 for scholars living with parents.

The *Commonwealth Advanced Education Scholarships Scheme* made provision for 6,000 scholarships in 1973 for students taking approved courses of advanced education at institutions other than universities. Benefits are similar to those for university scholarships.

The above schemes are the main responsibility of the *Commonwealth Scholarships Board* which is responsible for advising the Government on the policy and administration of Commonwealth post-graduate awards and university and advanced education scholarships. The Board, under its former title of the Universities Commission, was established by the *Education Act* 1945. It consists of a chairman and three other members.

From 1964 to 1972 the *Commonwealth Secondary Scholarship Scheme* students competed each year for 10,000 scholarships which assisted them during the final two years at secondary school. Benefits were free of means test and comprised 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. From the beginning of 1973 this scheme is being phased out and replaced by the Commonwealth Senior Secondary Scholarship Scheme which provides 25,000 scholarships to assist students during the final two years at secondary school. Under these scholarships the successful applicant receives a basic allowance of \$150 per annum without a means test. A further allowance of up to \$250 per annum may be paid subject to family income.

The *Commonwealth Technical Scholarship Scheme* made available 2,500 new awards in 1973 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, free of means test, a yearly living allowance of \$200, a text-book and equipment allowance of \$50 per annum and reimbursement of compulsory fees up to a maximum of \$150 per annum. 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.

Changes planned for 1974. In 1974, as part of new arrangements for financing tertiary education, which will remove the need for students to pay compulsory tuition fees and associated charges, the Commonwealth University, Advanced Education and Technical Scholarship Schemes will be replaced by a new Tertiary Allowances Scheme. This scheme will be non-competitive and will provide means tested allowances for all eligible full-time students who do not hold other awards.

COMMONWEALTH SCHOLARSHIPS: NUMBERS OF SCHOLARS IN TRAINING
30 JUNE 1972

<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—							
Awarded—							
In 1972	331	231	101	89	27	16	795
Prior to 1972	568	304	133	155	64	36	1,260
Total	899	535	234	244	91	52	2,055
University scholarship—							
Awarded—							
In 1972	4,614	3,169	1,759	1,117	876	260	11,795
Prior to 1972	10,003	7,039	3,329	2,149	1,654	658	24,832
Total	14,617	10,208	5,088	3,266	2,530	918	36,627
Advanced education scholarship—							
Awarded—							
In 1972	1,028	1,375	417	384	369	108	3,681
Prior to 1972	1,167	1,359	566	457	396	113	4,058
Total	2,195	2,734	983	841	765	221	7,739
Secondary scholarship—							
Awarded—							
In 1972	3,692	2,653	1,440	973	771	312	9,841
Prior to 1972	3,668	2,609	1,428	943	765	244	9,657
Total	7,360	5,262	2,868	1,916	1,536	556	19,498
Technical scholarship—							
Awarded—							
In 1972	1,137	666	245	229	203	55	2,535
Prior to 1972	794	602	181	194	121	38	1,930
Total	1,931	1,268	426	423	324	93	4,465

(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 1972, there were 55 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 \$1,300 per annum and other allowances; and the part-time students with fees and incidental expenses. In 1972, 689 students held grants.

Aboriginal Secondary Grants. This scheme was introduced to assist students to continue schooling beyond the school leaving age by paying living costs, fees and other allowances. At 30 June 1972, 4,266 students held grants. In 1973, the lower age limit of 14 years was removed and assistance was extended to all Aboriginal pupils enrolled at secondary school.

Canberra Teacher Education Scholarships. These awards were offered for the first time in 1971 and assist students undertaking courses of teacher training at the Canberra College of Advanced Education. The Scholarships are unbonded and benefits are similar to those for Advanced Education Scholarships. At 30 June 1972, there were 70 students holding awards.

Pre-school Teacher Education Scholarships. This scheme was introduced in 1973 to assist all students enrolled in pre-school teacher education courses. Benefits are free of a means test and comprise a living allowance of \$800 per annum for students living at home and \$1,300 per annum to students living away from home, and payment of all compulsory fees.

Commonwealth Teaching Service Scholarships. These scholarships were first introduced in 1972 to assist students taking courses of teacher training who, on completion of that training, would become members of the Commonwealth Teaching Service. There were 400 awards available in 1973. They are unbonded and entitle holders to payment of all compulsory fees and to a living allowance, which is not subject to a means test, at the rate of \$800 per annum for a scholar living at home and \$1,300 per annum for a scholar living away from home. At 30 June 1973 there were 366 scholars in training.

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.

The Department of Education is responsible for the administration of various schemes concerned with international co-operation in education.

An important UNESCO activity for 1972 was the holding of the Seventeenth Session of the UNESCO General Conference in Paris in October-November. An Australian delegation contributed to the discussions, which were concerned with the determination of the Organisation's future program activities and the adoption of the budget for the 1973-74 biennium. Members of the delegation included, for the first time, two representatives of Papua New Guinea's interests.

The six Australian specialist UNESCO Committees concentrated attention during 1972 on future UNESCO international program activities, and briefed the delegation to the Conference accordingly.

During 1972, there were several local UNESCO activities of significance. Three national seminars were held. In May, a Seminar on the Teaching of English took place, which examined present English curricula in Australian schools. This Seminar was organised by the Committee for Education. In November, the Committee for Communication, as part of its contribution to UNESCO International Book Year, organised a national seminar entitled "The Book under Challenge" which dealt with the role of books in contemporary society. In December, a regional Seminar on Drought was held. This meeting, organised by the Australia-UNESCO Committee for the International Hydrological Decade, examined techniques of managing water and associated land resources. The seminar was planned as a contribution to Asian regional co-operation in hydrology.

Overseas consultants were made available by the Director-General of UNESCO for the Teaching of English and Drought seminars. A further UNESCO consultant visited Australia, at the request of the Committee for Museums and Libraries, to advise authorities on the restoration and preservation of nineteenth century buildings.

Under the scheme of Commonwealth Co-operation in Education (CCE), the Department of Education arranged short study programs in Australia for a group of senior educationists from Africa and the Pacific and recruited a number of Australian educationists to undertake developmental assignments in developing countries of the Commonwealth.

As part of Australia's contribution to the Commonwealth program, special training courses for teachers from Commonwealth countries were arranged in 1972 by the Department of Education. A group of Ugandan infant teachers completed a two-year course in infant teaching methods at Wollongong Teachers College conducted by the New South Wales Department of Education; a one-year course in Infant Education was also conducted at Wollongong Teachers College and was attended by teachers from Fiji, Gambia, Tonga and Western Samoa. Teachers from the Gilbert and Ellice Islands, Guyana, Jamaica, Kenya, New Hebrides, Nigeria, Tanzania, Tonga, Western Samoa and Zambia participated in a one-year course in Primary Education held at the Murray Park College of Advanced Education (formerly Wattle Park Teachers College) conducted by the South Australian Education Department. The Victorian Education Department arranged a course for Inspectors of Schools, following which the participants (from Mauritius, Nigeria, Tanzania, Uganda and Zambia) attended the biennial Conference of the Australasian Association of Institutions of Inspectors of Schools, held in Hobart. A mathematics workshop was again conducted by Macquarie University.

In a new type of program introduced in 1972, eight teachers from the British Solomon Islands undertook a four-months course of attachments to small rural primary schools in New South Wales to observe methods and content of teaching in relation to rural conditions. Other programs followed by overseas educationists under the scheme of Commonwealth Co-operation in Education included

the Master of Education degree, the Diploma in the Teaching of English as a Foreign Language, primary school arts and crafts, pre-school education, educational administration, domestic science, physical education, and industrial arts.

Under the Commonwealth Scholarship and Fellowship Plan, the Department of Education is responsible for the award of Australian scholarships to students from other Commonwealth countries. In 1972, Australian awards were taken up by scholars from Britain, Canada, Cyprus, Fiji, Hong Kong, Malawi, Malaysia, New Hebrides, New Zealand, Nigeria, Singapore, Sri Lanka, Tonga, Trinidad, Uganda, Western Samoa and Zambia. The Department of Education acts as the selection agency for post-graduate scholarships offered to Australian students by other governments. Offers are received from many Commonwealth and European countries, and Japan. The offers by Commonwealth countries are made under the Commonwealth Scholarship and Fellowship Plan. In the case of the United Kingdom and Canada, the awards provide the largest single opportunities for Australian students to undertake post-graduate studies in those countries. The Department also continued to be 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.

During the long school vacation at the end of 1972, the first group of 24 Australian teachers to be awarded Asian Travel Grants by the Australian Government visited Asian countries. The Department of Education was responsible for the selection. It also administers the program of ANZAC Fellowships which are designed to enable distinguished New Zealanders to pursue their professional interests in Australia. Two awards were made in 1972. New Zealand makes reciprocal offers to Australia, and the Department is involved in selection. The Department is also involved in the administration of scholarships offered by the Confederation of British Industry, which each year enable a small number of young Australian engineers to undertake practical training in Britain and the Australian Government contributes to the costs of this scheme.

Australia became a member of the Organisation for Economic Co-operation and Development (OECD) in June 1971 (for details see Chapter 6, International Relations) and has participated in the Organisation's activities in education. Australia has become an official member of the OECD Centre for Educational Research and Innovation and has participated in Sessions held in Paris. In association with the Department of Foreign Affairs, the Department of Education liaises with State education departments and other relevant bodies on educational matters arising from Australia's membership of OECD.

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. 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 Australian Government for the 1970–72 triennium and details of its distribution can be obtained from the Report for the above-mentioned period, published in mid-1972. An amount of \$20 million has been allocated for the scheme during the 1973–75 triennium. Of this amount \$17 million is for upper atmosphere research, \$0.9 million for research in marine science, \$0.65 million for multidisciplinary research and \$0.55 million for the purpose and operation of a high resolution nuclear magnetic resonance spectro-meter. For details of Australian Government expenditure under the scheme in 1971–72 see page 677.

Grants for universities. The Australian Universities Commission, a statutory body established under the *Australian Universities Commission Act, 1959–1971*, advises the Minister for Education on matters in connection with the grant of Commonwealth financial assistance for universities in the States and the Australian Capital Territory. To date, the Commission has presented five triennial reports. The total financial support for universities provided by Commonwealth and State governments on the Commission's recommendations for the years 1961 to 1975 has exceeded \$2,900 million, including fees. Since the Australian universities are almost wholly dependent on government finance, the Australian Universities Commission plays a key role in the determination of the growth and balanced development of the Australian university system.

Prior to the establishment of the Commission, there were nine universities—the Universities of Sydney, New South Wales, New England, Melbourne, Queensland, Adelaide, Western Australia, Tasmania and the Australian National University. Since 1958, an additional six universities have been established on the recommendations of the Commission. These universities are the University of Newcastle and Macquarie University in New South Wales, Monash and La Trobe Universities in Victoria, James Cook University of North Queensland and Flinders University of South Australia. In the 1973–75 triennium two new universities, Griffith University in Brisbane and Murdoch University in Perth, will commence to take students and, in 1975, the Wollongong University College will become an autonomous university.

The Fifth Report of the Australian Universities Commission was published in 1972 and recommended total grants from Commonwealth and State sources for State universities of over \$893 million for the 1973–75 triennium. It also recommended grants of over \$122 million for the Australian National University. These recommendations were accepted by the Commonwealth Government which passed legislation to provide financial assistance for State universities in the 1973–75 triennium on the basis of the program recommended by the Commission.

A summary of the maximum grants by the Commonwealth for all universities for the 1973–75 triennium and for the 1967–69 and 1970–72 triennia is shown in the following table. Details of Commonwealth payments for universities are given on pages 675–7 and an historical summary of the financial assistance provided for universities by the Commonwealth Government is given in Year Book No. 55, pages 515–18.

**ALL UNIVERSITIES: SUMMARY OF MAXIMUM COMMONWEALTH GRANTS FOR
THE 1967-69, 1970-72 AND 1973-75 TRIENNA
(\$'000)**

<i>Type of Grant</i>	<i>1967-69</i>	<i>1970-72</i>	<i>1973-75</i>
Recurrent grants—			
General	178,797	267,934	362,295
Teaching hospitals	810	1,036	1,354
Student residences	1,950	2,588	4,215
<i>Total recurrent grants</i>	<i>181,557</i>	<i>271,558</i>	<i>367,864</i>
Building grants—			
Building projects	50,683	59,276	65,301
Teaching hospitals	4,927	2,460	2,990
Student residences	11,524	12,117	3,904
<i>Total building grants</i>	<i>67,134</i>	<i>73,853</i>	<i>72,195</i>
Equipment	985	2,047	22,720
Research . . . . .	..	4,000	3,000
<i>Total Commonwealth grants for all universities (a)</i>	<i>249,676</i>	<i>351,458</i>	<i>465,779</i>
<i>Total State grants for State universities(b)</i>	<i>278,980</i>	<i>401,625</i>	<i>550,085</i>
Total	528,656	753,083	1,015,864

(a) Including receipts from fees of the Australian National University. (b) Including receipts from fees of State universities.

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

<i>Grant</i>	<i>Basis</i>
Recurrent grants for general university purposes and for teaching hospitals.	The Commonwealth Government provides \$1 for each \$1.85 available from State grants and students' fees.
Recurrent grants for halls of residence and affiliated residential colleges.	Wholly supported by the Commonwealth Government.
Grants for equipment, for special research and for all buildings other than affiliated residential colleges.	The Commonwealth Government provides \$1 for each \$1 provided in State grants.
Grants for buildings for affiliated residential colleges.	The Commonwealth Government provides one half of the approved project cost, the remainder being provided by the State government and the residential college on various bases.

**MAXIMUM COMMONWEALTH GRANTS TO UNIVERSITIES FOR THE 1973-75
TRIENNIUM**
(\$'000)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Recurrent grants—								
General	98,962	65,776	32,323	24,621	18,488	8,025	114,100	362,295
Teaching hospitals	475	433	189	123	94	40	..	1,354
Student residences	1,365	1,100	690	225	270	200	365	4,215
<i>Total recurrent grants</i>	<i>100,802</i>	<i>67,309</i>	<i>33,202</i>	<i>24,969</i>	<i>18,852</i>	<i>8,265</i>	<i>114,465</i>	<i>367,864</i>
Building grants—								
Building projects	20,911	14,543	7,740	6,396	6,566	1,345	7,800	65,301
Teaching hospitals	928	231	148	1,158	300	225	..	2,990
Student residences	1,346	1,099	944	90	385	40	..	3,904
<i>Total building grants</i>	<i>23,185</i>	<i>15,873</i>	<i>8,832</i>	<i>7,644</i>	<i>7,251</i>	<i>1,610</i>	<i>7,800</i>	<i>72,195</i>
Equipment	9,140	5,540	2,705	2,790	1,750	795	..	22,720
Research	1,135	850	350	375	200	90	..	3,000
Total Commonwealth grants for all universities(a)	134,262	89,572	45,089	35,778	28,053	10,760	122,265	465,779

(a) Including receipts from fees of the Australian National University.

Grants for colleges of advanced education. The Commonwealth continues to be advised by the Australian Commission on Advanced Education. The following tables provide details of grants for the 1970-72 and 1973-75 triennia.

**COLLEGES OF ADVANCED EDUCATION: SUMMARY OF
MAXIMUM COMMONWEALTH GRANTS FOR THE 1970-72 AND
1973-75 TRIENNA**
(\$ million)

<i>Type of grant</i>	<i>1970-72</i>	<i>1973-75</i>
Capital	57.37	87.30
Recurrent	57.28	108.04
Unmatched library	0.50	0.50
Special matched library . . . . .	..	1.00
Research and investigation	0.25	0.25
Capital assistance to student residences (non-collegiate) . . . . .	..	1.00
Capital assistance to student residences (country) . . . . .	..	0.50
Recurrent assistance to student residences (collegiate)	0.01	0.50
Total	115.41	199.09

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

<i>Grant</i>	<i>Basis</i>
Capital	\$1 Commonwealth for every \$1 State
Recurrent	\$1 Commonwealth for every \$1.85 of income from fees and State grants
Unmatched library	No matching grant required
Matched library	\$1 Commonwealth for every \$1 State
Research	No matching grant required
Capital—Student residences (non-collegiate)	\$1 Commonwealth for every \$1 State (up to a maximum of \$2,500 for each student place)
Capital—Student residences (country)	\$1 Commonwealth for every \$1 State
Recurrent—Student residences	Basic grant <i>plus</i> full-time student per capita contribution of \$60 per annum

**COLLEGES OF ADVANCED EDUCATION
MAXIMUM COMMONWEALTH GRANTS FOR THE 1973-75 TRIENNIUM
(\$ million)**

<i>Type of grant</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Capital	21.05	25.50	7.75	10.00	7.50	3.90	11.60	87.30
Recurrent	22.09	33.33	10.00	9.47	14.04	4.21	(a)14.90	108.04
Unmatched library(b) . . . . .	..	..	..	..	..	..	..	0.50
Special matched library(b) . . . . .	..	..	..	..	..	..	..	1.00
Research and investigation(b) . . . . .	..	..	..	..	..	..	..	0.25
Capital—Student residences (non-collegiate)(b) . . . . .	..	..	..	..	..	..	..	1.00
Capital—Student residences (country)(b) . . . . .	..	..	..	..	..	..	..	0.50
Recurrent—Student residences (collegiate)(b) . . . . .	..	..	..	..	..	..	..	0.50
Total	43.14	58.83	17.75	19.47	21.54	8.11	26.50	199.09

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

Grants for technical training. These grants are made under the *States Grants (Technical Training) Acts 1964, 1965, 1968 and 1971-73*. The grants are for capital expenditure on buildings and equipment for use in technical training. 'Technical training', for the purposes of this program, means the training of persons for engagement in trades, technical occupations and agricultural or other rural occupations below the tertiary level. From the time the scheme began in July 1964 to June 1971 the following amounts were advanced to the States, the allocation being based on total population.

**TECHNICAL TRAINING: COMMONWEALTH GRANTS TO THE STATES
FOR THE PERIOD JULY 1964 TO JUNE 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>
26,103	19,765	10,163	6,601	5,055	2,313	70,000

The scheme was extended for a further three years ending 30 June 1974. The 1971 Act provided a total of \$36 million. In addition, amending legislation has been passed which increased this amount by \$10 million to \$46 million. Maximum grants to the States for the triennium ending 30 June 1974 are shown in the following table.

**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>
16,988	12,820	6,721	4,323	3,699	1,449	46,000

For Commonwealth outlay on technical training during 1970-71, see pages 675-7.

The Australian Government has established an Australian Committee on Technical and Further Education which will become a Commission after the passage of enabling legislation. The Committee will advise on the development of technical and further education after June 1974 and will recommend financial assistance to the States on the basis of needs and priorities.

Grants for teachers colleges. The scheme commenced on 1 July 1967, and was extended for a further three years with available funds increasing from \$24 million for the 1967-70 triennium to \$30 million for the 1970-73 triennium. The grants to teachers colleges are for capital expenditure on approved building projects including the planning, erection, alteration and extension of a building plus the necessary furniture and equipment. The *States Grants (Teachers Colleges) Acts 1967 and 1970* provide that 10 per cent of places (new or replacement) resulting from the expenditure of

Commonwealth grants must be available for private students, i.e. students not bonded, to State education departments. (For full details of the Commonwealth's role in teacher education, reference should be made to the report issued in 1972 of the Senate Standing Committee on Education, Science and the Arts.)

**TEACHERS COLLEGES: ALLOCATIONS OF COMMONWEALTH GRANTS
FOR SIX YEARS 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>
17,400	14,850	6,780	6,800	5,600	2,570	54,000

It is estimated that the expenditure of Commonwealth grants on teachers colleges provided 5,677 places (4,371 new and 1,306 replacement places) during the period 1967-68 to 1969-70 and it will provide 6,000 places (3,520 new and 2,480 replacement places) during the period 1970-71 to 1972-73.

For details of Commonwealth grants for teachers colleges during the period 1967-68 to 1971-72 see page 676.

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 the following colleges of advanced education: the Mitchell (Bathurst) and Riverina (Wagga) Colleges of Advanced Education in New South Wales; the Queensland Institute of Technology, Darling Downs (Toowoomba) and Capricornia (Rockhampton), and the Launceston and Hobart branches of the Tasmanian College of Advanced Education. Teacher education commenced at the Canberra College of Advanced Education in 1971.

Pre-school teachers colleges grants. In 1968 the Commonwealth provided \$2,500,000 for capital expenditure on approved building projects in connection with the provision of pre-school or kindergarten teacher training facilities. An approved building project includes planning, erection, alteration of a building plus the necessary furniture and equipment. The primary purpose of the grants was to double the capacity of the colleges for the training of pre-school teachers.

In Tasmania, pre-school teacher training is a function of the Tasmanian College of Advanced Education. In the other States it is currently administered by the private organisations shown in the table below. The Commonwealth's allocations made under the *States Grants (Pre-school Teachers Colleges) Act* 1968-1972, were as follows.

**PRE-SCHOOL TEACHERS COLLEGES: AMOUNTS GRANTED TO EACH STATE
ORGANISATION RESPONSIBLE—1968-1973**

(\$)

<i>State</i>	<i>Name of college</i>	<i>Body of trustees conducting or owning property of college</i>	<i>Amount(a)</i>
New South Wales	Nursery School Teachers College	The Sydney Day Nursery and Nursery Schools Association Incorporated	650,000
	Sydney Kindergarten Teachers College	The Kindergarten Union of New South Wales, Incorporated	225,000
Victoria	Melbourne Kindergarten Teachers College	The Trustees of the Melbourne Kindergarten Teachers College	210,000
Queensland	Brisbane Kindergarten Teachers College	The Creche and Kindergarten Association of Queensland	350,000
South Australia	The Kindergarten Teachers College	The Kindergarten Union of South Australia, Incorporated	670,000
Western Australia	Meerilinga Kindergarten Teachers College	Kindergarten Association of Western Australia, Incorporated	175,000
Tasmania	Launceston Teachers College(b)		220,000
Total			2,500,000

(a) To be expended by 31 December 1973. (b) Now part of the Tasmanian College of Advanced Education.

When the approved building projects are completed the number of places available at pre-school teacher training colleges will be 1,750, an increase of 1,024 places since 1967.

Per capita grants to independent (i.e. non-government) schools.

The *States Grants (Independent Schools) Act 1969* provided for the introduction in 1970 of special purpose grants to be made to the States for transmission to independent schools (non-government) as a per capita contribution from the Commonwealth towards their recurrent expenditure. The Act also provided for the payment of per capita grants for students attending non-government special schools for handicapped children. The *States Grants (Schools) Act 1972* provided that per capita payments would be on the basis of 20 per cent of the cost of educating a primary and secondary student respectively in government schools on an Australia-wide basis. States were invited to make matching payments in the future. See also *Report of the Interim Committee for the Australian Schools Commission*.

The per capita grants per student during 1970, 1971, 1972 and 1973 are as follows.

**RATES OF PER CAPITA GRANTS PAID TO
INDEPENDENT (NON-GOVERNMENT) SCHOOLS
DURING 1970 TO 1973
(\$)**

<i>Type of student</i>	1970	1971	1972	1973
Primary	35	35	50	62
Secondary	50	50	68	104

Australian Capital Territory and Northern Territory. The Commonwealth Government provides a per capita grant to non-government schools in the Australian Capital Territory and the Northern Territory at twice the rate it pays to non-government schools in the States in its role as a 'State' Government.

Non-government schools in the Australian Capital Territory and the Northern Territory also receive grants for science facilities and for school libraries in conjunction with the capital aid scheme under which the Commonwealth Government meets the greater part of interest charges on loans and also repays, in 20 equal annual instalments, the approved costs for school building projects. For details of payments made under the Act during 1971-72, see page 678.

For the total amounts of per capita grants paid to independent (non-government) schools, see page 676.

Grants for science laboratories. From July 1964 to June 1975, \$123.3 million will have been distributed to the States in unmatched grants for science buildings and equipment in government and non-government secondary schools. During the present four year period which ends on 30 June 1975, grants to State schools have been provided on the basis of proposed programs agreed to between the Commonwealth and State Ministers of Education. Grants to independent schools have been approved by the Commonwealth Minister for Education in accordance with their entitlement to assistance and on the basis of reports by an Advisory Committee on Standards for Science Facilities in Independent Schools; State advisory committees representing independent schools allocate priorities within their own State.

Grants for library facilities in secondary schools. During the three-year period January 1969 to December 1971, the Commonwealth distributed \$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 non-government secondary schools in the States. A further \$30 million has been provided for the same purposes in the 1972-74 triennium. Besides the Secondary Schools Libraries Committee, the Commonwealth, as with the science facilities scheme, has the advice of two advisory 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 present triennium are shown below. For details of payments made under the Act during 1971-72, see page 676.

**SECONDARY SCHOOL LIBRARIES: MAXIMUM COMMONWEALTH
GRANTS FOR THE TRIENNium ENDING 31 DECEMBER 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>
10,897	9,292	4,015	2,691	2,048	1,056	30,000

Following the Commonwealth contribution, in 1968–69, towards meeting the urgent need for more trained librarians to staff the new and existing libraries, further funds were made available during the period 1969–70, 1971–72 and 1972–73. These funds enabled the Commonwealth to sponsor several short specialist courses in various aspects of school librarianship in conjunction with State education departments and other interested organisations. During 1972 almost 2,000 teachers attended courses and seminars dealing with methods of library use, library organisation, selection of materials and the use of educational media. Expenditure in connection with the courses during the period 1968–69 to 1972–73 totalled approximately \$199,000.

Capital Aid for Schools Program. Under the *States Grants (Schools) Act 1972*, \$215 million is available for school construction by way of grants. Of this amount \$167 million is for State government schools and \$48 million for non-government schools. After 30 June 1974, the balance of the funds available under the Act will be distributed as far as non-government schools are concerned, on the basis of recommendations from the Australian Schools Commission. A total of \$9 million is being distributed to non-government schools in the six States in 1973–74.

Interim Committee for the Australian Schools Commission. The first grants to the States, for government and non-government schools, arising out of the accepted recommendations of the Interim Committee for the Australian Schools Commission will be paid as from the beginning of 1974. These grants will total approximately \$97 million for the six month period January to June 1974. Recurrent grants will not be available to those non-government schools which are considered to have attained or exceeded already the Interim Committee's target standard of 'recurrent resource use' i.e., the standard which all schools should desirably have reached by 1979.

As a result of the Interim Committee's recommendations, assistance will include grants to government and non-government schools for general running expenses, for the provision of new buildings, for the upgrading of existing buildings, for primary and secondary libraries, 'disadvantaged' schools, handicapped children, teacher development, special projects and information systems.

Expenditure on education

The statistics in this section are intended to give a broad indication of the extent and direction of both government and private effort in the field of education in recent years. They have been compiled in accordance with national accounting concepts and, apart from some minor revisions which have been incorporated where later information became available, are consistent with the estimates included in *Australian National Accounts, 1971–72 (7.1)*. These figures can therefore be related to other national accounts aggregates. For explanation of the relevant national accounting concepts, reference should be made to *Australian National Accounts, 1971–72* and also to *Public Authority Finance: Commonwealth Authorities, 1971–72 (5.12)*, and *Public Authority Finance: States and Local Authorities, 1971–72 (No. 5.43)*, from which figures included in this section have also been taken.

The emphasis given in this section to the outlays of the public sector in part reflects the relative importance of that sector in the provision of education services, but is also a reflection of lack of detailed information relating to educational activities in the private sector. Sufficient information is given, however, to show the order of magnitude of private sector spending, and also to show aggregate demand for education services and facilities.

Public authority sector

The figures which follow form part of a comprehensive statistical program to reclassify the transactions recorded in the 'conventional' accounts of all public authorities into a national accounting presentation. As part of this program, the outlay of public authorities is classified by *function*, so as to reveal the broad purposes for which the public authorities undertake expenditure programs. These figures relate to those outlays which have been identified as being primarily designed to serve the purposes of 'education', broadly as defined in the United Nations System of National Accounts. Included therefore are outlays on administration and regulation of school systems and institutions of higher learning and educational research; on provision, inspection and support of primary and secondary schools, colleges and universities, technical training institutions, schools for the handicapped, adult education facilities, pre-school centres, etc.; on scholarships, research grants, etc.; and on subsidiary services such as transportation of school children and fare concessions. Expenditures on school medical and dental services and provision of free milk for school-children are not included, as these are regarded as primarily serving the purpose of health.

Application of this, or any other, definition of 'education' is far from being a straightforward matter. A particular item of expenditure may serve two or more distinct functions, and there is likely to be a degree of arbitrariness in deciding which is the primary function—the items referred to at the end of the previous paragraph are illustrative of this problem. In other cases a recorded

expenditure figure may relate to more than one function, but it may be very difficult in practice to separate them. Military colleges serve both defence and education functions. The usual practice is to classify these organisations to defence: but this practice may be of doubtful validity in the case of military colleges which are affiliated with universities. There are similar problems with the education of nurses. An initial difficulty here is that of satisfactorily identifying these expenditures in the accounts of hospitals. But even if that problem could be overcome there would still be some question as to whether this expenditure should belong in education or health. The lack of separate data decides the issue for the present—expenditure on the education of nurses in hospitals is classified to health—but the development of tertiary level courses in nursing at colleges of advanced education must eventually lead to reconsideration of this approach. There is also a problem in allocating these expenditures between the public and private sectors. Similar difficulties exist with post-graduate medical education. Another class of borderline cases relates to in-service training schemes. Here the usual practice is to classify expenditures to the primary function of the organisation providing the training: therefore all expenditures on cadetship schemes are treated in this way. Allowances paid to trainee teachers are regarded as in-service training expenditures—but in this case the primary function of their employers happens to be education, so that these expenditures are included in the figures in this statement. Expenditure on research by universities cannot be clearly separated from expenditures related to teaching; all expenditure by universities is therefore classified to education.

Apart from giving emphasis to the broad purposes of public sector outlays, a national accounting presentation of the transactions of public authorities is also designed to facilitate the study of their impact on the rest of the economy. In the following tables the outlays of the public authorities engaged in providing education services or financing their provision by other bodies, public or private, have accordingly been broken into broad categories of final expenditure on goods and services (i.e. final consumption expenditure, and expenditure on new fixed assets); capital financing items (e.g. net expenditure on existing assets); transfers to the private sector (cash benefits, grants for private capital expenditure) which become a source of finance for that sector's own final expenditures; and transfers between public authorities (Commonwealth grants to the States).

Detailed analyses have not been prepared of the accounts of all public authorities providing or financing education services but methods of analysis have been adopted which reflect the net effect of the transactions of authorities not fully analysed (such as the State universities). Private non-profit organisations are covered by recording their final consumption expenditure as final expenditure by public authorities and persons: that is, the current grants to these organisations by public authorities are treated as public authorities' final expenditure, and fees, donations, etc. paid to them by persons are included in private final consumption expenditure. Current outlay of non-profit organisations is therefore covered, being approximately equal to their income from grants and fees. For reasons of practicality, grants for capital expenditure by public authorities to private non-profit organisations are treated as transfers, so that the capital expenditure of these organisations is wholly recorded in the private sector.

Local authorities have no responsibility for the provision of education services and only participate in this field of activity to the extent of providing some support to pre-school centres in some States. These expenditures have been included in the figures for the public sector given in the last table in this section, but their impact is negligible. To all intents and purposes therefore the outlays of Commonwealth authorities and State authorities shown in the following tables may be taken together as constituting the outlay on education by all public authorities.

Commonwealth authorities

Details of outlay on education by Commonwealth authorities are given in the following table

COMMONWEALTH AUTHORITIES: OUTLAY ON EDUCATION, 1967-68 TO 1971-72
(\$'000)

	1967-68	1968-69	1969-70	1970-71	1971-72
Current outlay—					
Final consumption expenditure—					
Department of Education and Science	2,849	3,744	4,973	6,958	8,263
Australian Universities Commission	197	217	229	223	301
Australian Commission on Advanced Education . . . . .	..	..	..	..	69
Australian Capital Territory education services(a)	5,669	6,767	7,652	10,184	11,929
Northern Territory education services(a)	3,401	4,609	5,550	7,719	9,392
Australian National University	16,276	18,698	19,370	27,237	28,800
Canberra College of Advanced Education	43	267	936	1,653	2,100
Child migrant education scheme . . . . .	..	..	82	1,698	3,155
Australian Broadcasting Commission—School broadcasts, etc.	817	873	902	970	1,093
Melbourne University—Meteorology	12	12	12	12	12
Sydney University—School of Public Health and Tropical Medicine, etc.	623	628	743	822	956
Technical training for ex-servicemen	20	15	18	20	30
Non-government schools—assistance(a) . . . . .	..	..	..	..	..
Australian Capital Territory	377	629	787	1,232	1,667
Northern Territory	17	30	86	157	242
Total	30,302	36,488	41,341	58,885	68,009
Cash benefits to persons—					
Commonwealth scholarship scheme—					
Post-graduate	2,899	3,588	4,526	5,209	5,888
University	13,383	16,268	18,160	22,519	28,127
Advanced education	754	1,001	1,628	2,793	3,552
Secondary	6,474	6,558	6,738	6,791	6,924
Technical	1,031	1,123	1,162	1,096	1,048
Soldiers' children education scheme	2,720	3,154	3,203	3,407	3,625
Aboriginal study grants . . . . .	..	62	190	326	473
Aboriginal secondary grants . . . . .	..	..	522	2,201	2,536
Other(b)	717	753	829	995	1,221
Total	27,979	32,508	36,959	45,337	53,393
Grants for private capital expenditure—					
Non-government schools—					
Australian Capital Territory	50	397	841	688	975
Northern Territory	6	7	32	145	101
Residential colleges—					
Australian National University	1,435	428	196	990	88
Aboriginal advancement	129	42	362	266	209
Total	1,620	874	1,431	2,089	1,373
Transfers overseas(c)	791	800	941	938	1,003
Grants to the States—					
Universities	39,912	43,534	50,435	58,877	67,596
Colleges of advanced education	5,273	6,282	10,658	15,743	18,372
Australian Research Grants Committee grants	3,154	2,879	3,446	4,170	4,341
Non-government schools—per capita grants . . . . .	..	..	12,177	24,253	29,594
Aboriginal advancement . . . . .	..	151	289	273	347
Total	48,338	52,846	77,005	103,316	120,249
Total current outlay	109,030	123,515	157,678	210,565	244,029
Capital outlay—					
Expenditure on new fixed assets—					
Department of Education and Science	48	124	55	59	42
Australian Capital Territory education services	4,771	4,731	6,735	5,593	6,370
Northern Territory education services	1,883	1,711	5,595	5,127	7,672
Australian National University	6,074	5,604	3,304	5,513	6,900
Canberra College of Advanced Education	439	808	1,502	3,203	3,300
Child migrant education scheme . . . . .	..	..	27	147	109
Sydney University—School of Public Health and Tropical Medicine, etc.	112	113	110	79	51
Total	13,328	13,090	17,328	19,722	24,442
Grants to the States—					
Universities	16,329	19,097	17,234	16,346	23,002
Colleges of advanced education	6,647	8,080	9,486	14,837	15,641
Teacher training colleges	4,518	6,322	13,160	2,470	11,155
Pre-school teachers colleges . . . . .	..	170	309	856	631
Science laboratories	12,587	11,762	12,898	13,062	10,824
School libraries . . . . .	..	1,703	7,540	13,257	9,780
Technical training facilities	13,877	7,587	9,878	12,535	7,411
Aboriginal advancement . . . . .	..	656	655	672	867
Government schools . . . . .	..	..	..	..	6,660
Total	53,958	55,377	71,160	74,035	85,969
Total capital outlay	67,286	68,467	88,489	93,757	110,411
Total outlay on education	176,315	191,982	246,167	304,322	354,440

(a) For further details of outlay in the Territories, see p. 678. (b) Includes the following items: Forestry scholarships, C.S.I.R.O. research studentships, scholarships and allowances to students in the A.C.T. and special scholarships to students in the N.T., and Australian Agricultural Council scholarships. (c) Relates mainly to expenditure in connection with Commonwealth Educational Co-operation Scheme.

As may be seen from the table, Commonwealth outlays are directed very largely towards the financing of outlays on education by the States and the private sector. Direct expenditure by the Commonwealth relates mainly to the costs of administering its support programs and its own educational research activities, the provision of education services in the internal territories, expenditures of statutory bodies (i.e. the Australian National University, the Canberra College of Advanced Education, and the Australian Broadcasting Commission), expenditure on the education of Aborigines by the Northern Territory administration, and the costs of the child migrant education program.

Grants to the States

Financial assistance to the States specifically for education purposes constitutes the major item of outlay on education by the Commonwealth. The allocation of the various categories of grants to individual States in 1971-72 is shown in the following table. The grants themselves have been described earlier, *see* pages 668-74.

COMMONWEALTH AUTHORITIES: GRANTS TO THE STATES
SPECIFICALLY FOR EDUCATION PURPOSES, 1971-72
(\$'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	1,638	1,177	511	577	307	131	4,341
Universities	27,223	18,586	8,412	6,676	4,594	2,105	67,596
Colleges of advanced education	3,713	7,341	1,860	1,651	2,920	887	18,372
Non-government schools—per capita grants	10,854	9,655	4,472	1,889	2,064	660	29,594
Aboriginal advancement	184	83	..	49	26	5	347
<i>Total current</i>	<i>43,612</i>	<i>36,842</i>	<i>15,255</i>	<i>10,842</i>	<i>9,911</i>	<i>3,788</i>	<i>120,249</i>
Capital—							
Universities	9,682	6,669	2,597	1,818	1,571	665	23,002
Colleges of advanced education	2,666	5,580	2,412	1,699	1,899	1,385	15,641
Technical training	2,416	1,500	1,238	1,130	747	380	7,411
Teacher training colleges	4,194	2,750	1,364	1,063	1,132	650	11,153
Science laboratories—							
Government schools	2,368	2,009	768	662	468	248	6,522
Non-government schools	1,335	1,359	831	166	443	167	4,302
School libraries	4,195	2,519	1,044	891	765	366	9,780
Pre-school teachers colleges	521	..	..	110	..	..	631
Aboriginal advancement	20	..	441	116	290	..	867
Government schools	2,120	1,700	840	910	620	470	6,660
<i>Total capital</i>	<i>29,517</i>	<i>24,086</i>	<i>11,535</i>	<i>8,565</i>	<i>7,935</i>	<i>4,331</i>	<i>85,969</i>
Total grants	73,129	60,928	26,790	19,407	17,846	8,119	206,219

State authorities

The following table shows the outlay on education by State authorities, financed from their own resources (including general purpose grants from the Commonwealth), and from Commonwealth grants for education purposes.

STATE AUTHORITIES: OUTLAY ON EDUCATION
1967-68 TO 1971-72

(\$ million)

	1967-68	1968-69	1969-70	1970-71	1971-72
Final consumption expenditure					
New South Wales	228	252	299	368	436
Victoria	187	217	257	304	358
Queensland	72	84	99	119	142
South Australia	64	71	82	99	122
Western Australia	50	57	71	86	105
Tasmania	24	26	30	37	42
<i>Total</i>	625	707	838	1,012	1,204
Expenditure on new fixed assets—					
New South Wales	60	73	75	81	99
Victoria	54	56	60	73	77
Queensland	16	24	26	29	35
South Australia	15	18	21	27	31
Western Australia	15	15	20	19	21
Tasmania	5	7	7	8	13
<i>Total</i>	165	191	209	236	275
Expenditure on existing assets . . . . .	..	..	1	1	1
Cash benefits to persons	16	21	26	29	35
Grants for private capital expenditure	8	7	9	11	11
Total outlay on education	815	926	1,083	1,290	1,526
<i>of which—</i>					
New South Wales	299	338	389	466	555
Victoria	247	279	324	384	442
Queensland	92	112	131	156	186
South Australia	80	90	107	131	158
Western Australia	68	74	93	108	130
Tasmania	30	34	39	46	56

All public authorities

The outlay on education of all public authorities consists of the final expenditure on goods and services of the Commonwealth and State authorities and transfers by these authorities to the private sector. These figures are brought together in the following table, and are related to the total outlay (on all functions) by all public authorities to give an indication of the share of government resources devoted to education.

OUTLAY ON EDUCATION: ALL PUBLIC AUTHORITIES
1967-68 TO 1971-72
(\$ million)

	1967-68	1968-69	1969-70	1970-71	1971-72
Commonwealth authorities—					
Final consumption expenditure	30	36	41	59	68
Cash benefits to persons	28	33	37	45	53
Transfers overseas	1	1	1	1	1
Grants for private capital expenditure	2	1	1	2	1
Expenditure on new fixed assets	13	13	17	20	24
Grants to the States—					
Current	48	53	77	103	120
Capital	54	55	71	74	86
<i>Total Commonwealth</i>	<i>176</i>	<i>192</i>	<i>246</i>	<i>304</i>	<i>354</i>
State authorities—					
Final consumption expenditure	625	707	838	1,012	1,204
Cash benefits to persons	16	21	26	29	35
Grants for private capital expenditure	8	7	9	11	11
Expenditure on new fixed assets	165	191	209	236	275
Expenditure on existing assets . . . . .	..	..	1	1	1
<i>Total State</i>	<i>815</i>	<i>926</i>	<i>1,083</i>	<i>1,290</i>	<i>1,526</i>
<i>less Grants from Commonwealth for education purposes</i>	<i>102</i>	<i>108</i>	<i>148</i>	<i>177</i>	<i>206</i>
Outlay financed from States' own resources and from non-specific Commonwealth grants	712	818	935	1,112	1,320
<i>Total outlay on education</i>	<i>889</i>	<i>1,010</i>	<i>1,181</i>	<i>1,417</i>	<i>1,675</i>
Total outlay on all functions	8,105	8,632	9,676	10,510	11,822
	per cent	per cent	per cent	per cent	per cent
Outlay on education as percent of total outlay	11.0	11.7	12.2	13.5	14.2

Total expenditure on education

Total outlay on education can be measured by adding to the outlay of the public sector (as shown in the previous table) the final expenditure on education which the private sector finances from its own resources, or alternatively by adding together the final expenditures of both sectors (i.e. by consolidating out the public authority transfers, and also any net transactions in existing assets).

Final expenditure on education by the private sector consists of private final consumption expenditure on education services, and expenditure on new fixed assets—mainly by private non-profit organisations, and financed in part by the grant from public authorities for private capital expenditure. These grants are treated as transfers rather than final expenditure of public authorities as with the current grants, and are recorded as a source of funds for capital formation in the national capital account. Private final consumption expenditure on education services is an estimate of fees paid by persons to government schools (mainly technical and agricultural colleges), fees and gifts to universities and school fees (other than boarding fees) paid to non-government schools, business colleges, etc., and is based largely on information relating to fees charged and enrolments at these institutions. Expenditure on such items as school books, uniforms, etc and expenditure by parents associations on school equipment are included in categories other than education services (such as clothing, etc., newspapers, books, etc., and household durables). Private gross fixed capital expenditure in the field of education is estimated from statistics of the value of work done on new building and major additions to buildings of private educational institutions.

Estimates for these items of final expenditure of the private sector have been combined with the figures for public sector expenditure in the following table to provide a measure of total outlay on education. This latter item may also be regarded as a measure of the aggregate demand for education services and facilities by the community and can therefore be related to the supply of goods and services available from domestic production (i.e. gross domestic product). This relationship is shown in the table as an indicator of total community effort in the field of education.

EXPENDITURE ON EDUCATION: AUSTRALIA 1967-68 TO 1971-72
(\$ million)

	1967-68	1968-69	1969-70	1970-71	1971-72
Public authority sector—					
Final consumption expenditure . . .	656	744	879	1,071	1,272
Expenditure on new fixed assets . . .	179	204	226	256	300
<i>Total expenditure (1)</i>	<i>834</i>	<i>948</i>	<i>1,105</i>	<i>1,327</i>	<i>1,572</i>
Transfers to the private sector and expenditure (net) on existing assets . . .	54	62	76	90	103
<i>Total outlay</i>	<i>889</i>	<i>1,010</i>	<i>1,181</i>	<i>1,417</i>	<i>1,675</i>
Private sector—					
Private final consumption expenditure . . .	134	145	158	172	194
Expenditure on new fixed assets . . .	31	27	37	46	41
<i>Total expenditure (2)</i>	<i>165</i>	<i>172</i>	<i>195</i>	<i>218</i>	<i>235</i>
<i>less transfers from public authorities and sales (net) of existing assets</i>	<i>54</i>	<i>62</i>	<i>76</i>	<i>90</i>	<i>103</i>
Expenditure financed from the private sector's own resources	111	110	119	128	132
Total expenditure on education (1) and (2)	999	1,120	1,300	1,545	1,807
Gross Domestic Product	24,279	27,216	30,086	33,107	36,508
	per cent	per cent	per cent	per cent	per cent
Expenditure on education as percent of Gross Domestic Product	4.1	4.1	4.3	4.7	4.9

CULTURAL ACTIVITIES

Cultural organisations

Australian Council for the Arts

In January 1973 the Prime Minister announced the Government's intention to legislate to establish the Australian Council for the Arts as a statutory authority. Foundation members of the Council and Boards have been appointed. The Council's first responsibility is to prepare a report on the workings of the new organisation to serve as a basis for legislation.

The basis of the Council will be a number of boards dealing with different areas of the arts, including theatre, visual arts, music, literature, crafts, film and television and Aboriginal arts. The boards will be the main source of policy initiatives in their field, having authority to deal with their own budget allocation, and in consultation with the Australian Council for the Arts, to appoint specialist staff and committees to implement their policies. The Chairman of each of these boards will be a member of the Australian Council for the Arts.

The new Council will be responsible to the Government for the development of broad policies for the arts. It will advise the Government on new initiatives, on overall budgetary requirements and on matters referred to it by the Prime Minister or other Ministers. It will act as a forum for discussion and co-ordinated planning between various boards.

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 subscription booking systems on which both of these companies now operate; to act as entrepreneur in the touring of theatre features from overseas and Australian sources and to provide general services in communication for theatre organisations.

The Trust receives annual grants from Federal, State and local governments and its revenue is supplemented by subscriptions from members and donations from businesses.

Arts Council of Australia

With the exception of Western Australia, the Arts Council of Australia has a division in each State and Territory. Throughout Australia there are more than 160 branches. A Federal Secretariat was opened in Canberra in 1969 but moved to Sydney in 1971.

The Federal Secretariat and the Divisions of the Arts Council receive funds from the Australian Council for the Arts. The Divisions also receive State Government assistance and 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 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 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, as are weekend schools of drama, music, painting and pottery. Yearly drama festivals are conducted and school tours are organised.

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 because 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 41,000. 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 all States the National Trusts receive some financial support from the State Governments. The Commonwealth supports the Council through an annual grant of \$5,000 for administrative purposes, and in 1972 a further annual grant of \$50,000 was approved, this grant being intended for capital expenditure on the basis of national priorities. The Commonwealth also provides support through taxation concessions.

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 Committee is advised on the commissioning of portraits by the Visual Arts Board of the Australian Council for the Arts.

Film production

Australian National Film Board

The Australian National Film Board advises the Minister for the Media 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 Media as chairman, and the remainder representative of Commonwealth departments, State government instrumentalities and other interested organisations.

Film Australia

The Film Branch (formerly the Commonwealth Film Unit) of the Department of the Media is the official film production and distribution agency for Commonwealth departments and instrumentalities. It is referred to as Film Australia. It distributes its theatrical and television 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 Branch produces films for general exhibition, as well as training and special purpose films. In 1971-72 the Film Branch produced approximately 139 reels of new films and 182 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, Film Australia produces films under the sponsorship of, or with the co-operation of, Commonwealth departments and other government instrumentalities.

Australian Film Development Corporation

The *Australian Film Development Corporation Act 1970* provided for the establishment of an Australian Film Development Corporation to encourage the making of Australian cinematographic and television films and to encourage the distribution of such films within and outside Australia. The Corporation administers a fund which had an initial capital of one million dollars which is added to from time to time as the Government decides. The Corporation makes investments in films, makes loans to film and television producers, and will guarantee repayment of loans made to producers of Australian films.

Australian Film and Television School

Legislation establishing the Film and Television School with the status of a college of advanced education is being introduced in 1973. When fully operational the School will offer courses for students in all aspects of film and television production together with in-service programs for professionals and educationalists already working in film and television.

In 1973 the School is running an Interim Training Scheme of basic film and television courses for twelve students, and a series of advanced seminars for professionals and educationalists. The Council of the School is responsible for co-ordinating the Government's assistance programs to film and television training and educational projects. Support is given to workshops, seminars, film schools, together with grants-in-aid for overseas study and experience.

The School buildings will be situated on the campus of Macquarie University.

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 Federal 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 comprises seven persons and there are six members of a Cinematograph Films Board of Review. Importers have a right of appeal to the Minister.

The Australian censorship function is now the responsibility of the Attorney-General's Department and all States have agreed that the Federal Government should be the censorship authority for the purpose of the State Acts. They have agreed to vest in the two Boards the power to register and classify films.

Thirty-five mm films. In 1972, 1,255 films comprising approximately 1,896,000 metres were examined. Of these films 285 originated in the United Kingdom, 249 in the United States of America, 108 in Italy and 613 in other countries. Included in these figures were 605 full-length feature films which constitute the main theatrical attractions. Principal suppliers were: USA (170), UK (98), Italy (55), USSR (34), France (28), Greece (22) and Germany (14). Forty-five (45) feature films were rejected and cuts were made from sixty-six (66). There were twenty-one (21) appeals, seventeen (17) against rejection, two (2) against proposed eliminations and two (2) against classification. Ten (10) appeals were allowed and eleven (11) disallowed. Of the 605 feature films, 113 were awarded the "R" (Restricted) Certificate, 156 were recommended for showing to mature audiences ("M"), 160 were not recommended for children ("NRC"), 100 were classified as suitable for children ("G") and 76 were classified for use under festival conditions only. While the "M", "NRC" and "G" classifications are advisory, children between the ages of 6 and 18 (2 and 18 in South Australia) are excluded by law from seeing "R" films.

In addition to these imported films, there were 57 thirty-five mm films of 27,501 metres produced in Australia.

Sixteen mm films. Excluding those imported for television use, 5,481 films of approximately 1,806,200 metres were examined.

Eight and 9.5 mm films. There were 1,372 films (approximately 72,700 metres) which were examined.

Television films. In 1972, 6,915 films for use on television were examined. There were 746 video tapes of a total running time of 508 hours and the principal importers were TCN (283 tapes), ATN (265 tapes) and ABN (145 tapes). There were 6,169 (2,791,543 metres) of sixteen mm films imported.

The principal suppliers were USA (3,401 films) and UK (1,393 films). Of the total imports 2 were rejected, 492 films were cut (2,415 metres) and 51 were classified as unsuitable for televising.

Museums and art galleries

A museum or art gallery is considered for statistical purposes 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 692-4), 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

The following table classifies by States and Territories and by ownership the institutions in Australia which have been identified in 1971 as museums and art galleries (branches of museums and art galleries are not shown separately). The information shown below is only collected at two-yearly intervals.

MUSEUMS AND ART GALLERIES: STATES AND A.C.T., AND OWNERSHIP, 1971
(Number)

	Major institutions			Other institutions			
	Museums	Art galleries	Mixed institutions	Museums	Art galleries	Mixed institutions	All institutions
State or Territory—							
New South Wales	3	(a)1	..	4	3	2	13
Victoria	3	1	..	5	7	2	18
Queensland	1	1	..	1	2	..	5
South Australia	1	1	..	7	2	..	11
Western Australia	1	1	..	3	1	..	6
Tasmania . . . . .	..	..	2	..	..	..	2
Australian Capital Territory	1	..	1	1	..	..	3
Ownership—							
Commonwealth Government	1	..	1	1	..	..	3
State Governments	8	5	1	3	..	1	18
Municipal authorities	1	..	1	6	7	1	16
Private trusts . . . . .	..	..	..	5	6	1	12
Universities . . . . .	..	..	..	1	1	1	3
Private . . . . .	..	..	..	5	1	..	6
Total museums and art galleries	10	5	3	21	15	4	58

(a) Closed for alteration from October 1970 to May 1972.

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

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.

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 National Library maintains and develops a national collection of library material, representative of all the major countries of the world, and it is also responsible for assembling a comprehensive collection relating to Australia and the Australian people. In fulfilment of the latter statutory function it seeks to preserve 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 Rex 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 is engaged on a microfilming project to copy original records relating to Australia which are held in Great Britain and other overseas countries.

Australian National Bibliography, which appears weekly, monthly, four monthly and annually, lists books published in Australia and books dealing wholly or substantially with Australian subjects or written by Australian authors. It is now computer produced and the records are available in machine-readable form. Catalogue cards for Australian books listed in the bibliography are also made available. The publications of the Australian governments, included in *Australian National Bibliography*, are also listed quarterly and annually in *Australian Government Publications*. A select list of authoritative Australian books of reference and research value is published annually as *Australian Books*. A similar list of serials is published in successive editions under the title *Current Australian Serials*. The Library's principal activity in subject bibliography is its *Australian Public Affairs Information Service*. A listing of maps and atlases, included in *Australian National Bibliography* from 1961 to 1967, has since that time been recorded in a separate quarterly publication entitled *Australian Maps*.

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, maintained in card form, was commenced in 1960 and since then 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.

Under an agreement with the United States National Library of Medicine, the Library has, since 1969, operated a regional Medical Literature Analysis and Retrieval (MEDLARS) Centre. The Australian MEDLARS Service contributes indexed entries to this system and on request provides computer-produced bibliographies of recent and current material to workers in the various biomedical fields.

The National Library acts as a central library of documentary and educational films, its film collection containing approximately 9,000 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 1,300,000 volumes, 25,000 paintings, pictures and prints, 100,000 photographs, 66,000 reels of microfilm, 4,700 running feet of manuscripts, 60,000 motion picture stills, 18,000 reels of moving picture films, 245,000 maps, and 500,000 aerial photographs.

Patent Office Library. The Library of the Commonwealth Patent Office, Canberra, contains approximately 16,000 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 and design) laws and practice of most countries. Patent specifications of inventions are received from the principal countries of the world; present holdings are over 14,000,000. 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 is organised to provide a specialised service to the Commonwealth Parliament. The two main sections are the Legislative Research Service and the Legislative Reference Service. The Research Service comprises six groups—(i) Defence, Science Technology; (ii) Education and Welfare; (iii) Finance, Industries, Trade and Development; (iv) Foreign Affairs; (v) Law and Government; (vi) Statistics. The groups are staffed by specialists who prepare analyses and interpretations of specific issues with which the Parliament is or may be concerned. These are usually in written form but may consist of consultations with individual Members of Parliament or the Committees of Parliament. The Research Service also provides specialised information for Members. The 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 1972, stocks totalled 72,874 volumes which were held at the following centres: Darwin, 31,026; Nightcliff, 10,120; Alice Springs, 18,638; Tennant Creek, 6,776; Katherine, 6,314. The National Library, through its Extension Services Section, conducts the Canberra Public Library Service to residents of the Australian Capital Territory, to whom 1,213,502 loans were made in 1971-72. At 30 June 1972, 379,192 volumes were held, 226,977 at adult libraries, and 152,215 at children's libraries.

State libraries

New South Wales. At 30 June 1972, 188 councils had established libraries in terms of the Library Act, 1939. During 1971-72 they spent on their libraries \$8,323,616 including \$2,092,061 received in subsidy. There are 266 libraries, of which 97 are in the metropolitan area and 169 in the country. There are also 24 bookmobiles, of which 10 are in the Sydney metropolitan area and 14 in country municipalities and shires. These libraries contain 4,953,510 volumes and issued 25,306,620 books during 1971. The Library of New South Wales 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 658,699 volumes, an Extension Service, together with the Shakespeare Tercentenary Memorial Library, and the Mitchell and Dixon Libraries and Galleries which are mainly devoted to Australian and Pacific material. The Extension Service lends books to municipal and shire libraries and to individual borrowers. The total stock of the Service is 83,810 volumes, and 25,471 books were lent to public libraries and individual borrowers during 1971-72. In 1972 there were 281,253 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 1,203,006 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, 389,081 volumes; the City of Sydney Public Library, 242,512; Department of Technical Education, 360,333; Railway Institute, 167,787; Parliamentary Library, 145,650; Australian Museum, 40,400; Government Transport Institute, 25,168; New South Wales Teachers' Federation Library, 27,000; Workers' Educational Association, 16,250; and the Library at the National Herbarium, 12,100 volumes.

Victoria. During 1972-73, 170 councils representing 3,278,000 Victorians shared Government library grants amounting to \$2,786,597. Of this amount, \$2,558,600 was direct municipal library subsidy. With the addition of expenditure from these councils' own funds the total expenditure on municipal library services for 1972-73 was nearly \$7,000,000. In 1971-72, 1,028,000 borrowers used the free library services now totalling 3,506,000 books, to the extent of 17,572,000 issues.

Particularly in the country, services have been developed by means of regional libraries. These services, of which there are 27 at present, comprising a total of 130 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 \$200,000 per annum.

There are 17 bookmobile services operating in Victoria, 12 in country regions and 5 in the metropolitan area.

The collections of the State Library of Victoria comprise more than 1 million volumes. Of these the La Trobe collection consists of approximately 60,000 volumes as well as many pictures, manuscripts and old newspapers. The State Library receives 7,500 periodicals, annuals and newspapers. The Library also administers the State Archives, which comprise 55,000 shelf feet of records.

Queensland. The holdings of the State Library of Queensland and its extension services in 1971-72 were: main reference collection, 243,002 volumes, 12,072 pamphlets, 17,000 maps (approximately); Country Extension Service Collection 95,192 volumes; Oxley Memorial Library Collection 30,759 volumes and 46,241 other items. Interim count for current titles in the Serials section is 4,650 titles.

Local authorities are empowered by the Libraries Acts to establish and conduct library services as a function of local government. In 1971-72, 88 local authorities were conducting 168 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 are 139 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 1971-72 the State Government provided a grant of \$1,155,059 from consolidated revenue to finance the activities of the State 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.

At 30 June 1972 the Parliamentary Library of Queensland held about 100,000 volumes and pamphlets.

South Australia. The Reference Department of the State Library of South Australia contains 295,432 volumes and receives over 3,200 periodical titles. There are 61,604 volumes in the Adelaide Lending Service. The Country Lending Service has 605,980 volumes. The Adelaide Lending Service lent 369,187 books in 1971-72, and the Country Lending Service, 163,747.

The library of the Parliament of South Australia held approximately 60,000 volumes in 1972.

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 1972 these local public libraries contained 303,246 books. There were 127,172 registered borrowers. During 1971-72, 2,365,738 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 139 local public libraries throughout the State. Its stocks at 30 June 1972 were 1,122,796 volumes, comprising circulation stock (including books in public libraries), 799,052 volumes, State Reference Library, 305,363 volumes (including unbound) and Central Music Library, 4,656 books on music and 13,725 scores. The Central Music Library also held 2,314 recordings in stock at 30 June 1972.

Tasmania. The Tasmanian Library Board administers the State Library in Hobart, the extension of library services throughout the State and State aid to municipal libraries. State Government expenditure on library services in 1971-72 was \$1,011,025. A regional municipal library system commenced in April 1965 in 5 north-western municipalities, with headquarters in Burnie, and smaller libraries in other large towns and a bookmobile in rural areas. A second regional library system, with headquarters in Launceston, was opened on 1 July 1971. This regional system serves the City of Launceston and nine municipalities on either side of the Tamar estuary. Fourteen southern municipalities are served by 2 bookmobiles based in Hobart and a bookmobile serves schools in the Hobart metropolitan area. At 30 June 1972 the State Library in Hobart held 142,353 reference volumes and 116,833 lending volumes. The Board provided to municipal libraries by way of subsidy 419,008 books out of a total bookstock of 436,249 available for this purpose.

The State Library continued to provide a library of documentary films (4,616) and recorded music (15,827 discs) available for loan throughout the State.

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* (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	1,434	70	1,977
New South Wales	678	69	1,418
New England	307	15	474
Newcastle	192	16	478
Macquarie	316	35	758
Melbourne	644	33	1,362
Monash	489	55	1,595
La Trobe	154	24	693
Queensland	709	47	1,237
James Cook	58	5	251
Adelaide	622	28	853
Flinders	205	27	527
Western Australia	435	26	829
Tasmania	248	20	455
Australian National	604	49	1,335
Total	7,096	518	14,242

(a) 30 April 1972. (b) Year ended 30 April 1972. (c) During year ended 31 December 1971.

Children's libraries and school libraries

For details of Commonwealth grants for the development of secondary school library services, see pages 673-4 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 \$11,000 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 1972, 525 primary, 254 secondary, and 96 technical schools had central libraries.

Queensland. In Queensland, 167 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 48,858 volumes is used by school classes and individual children living in the metropolitan area. In 1971-72, 193,667 books were lent. A lending service for young people from thirteen to eighteen years of age has a stock of 18,169 volumes, and in 1971-72, 97,651 loans were recorded.

Western Australia. The Education Department provides library services, issues materials and gives library allocations for library resources purchased by government 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 \$200 or \$400 in their first year according to their student enrolments. All government and non-government schools with fifth-year 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. Some new primary schools are being provided with a resource centre (i.e. a library and an audio-visual aids centre) as part of their construction and these are being progressively added to existing schools. Annual issues of books are made to all government 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 864 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 27,233 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 Section of the Division of External Services of the State Library, which has a stock of 201,343 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.

Book publishing

Prior to 1972 the statistics of book publishing in Australia and the External Territories were prepared and published by the Bureau of Census and Statistics from data supplied by the National Library of Australia. For details see Year Book No. 58, page 680-1 and earlier issues.

For 1972 the statistics have been compiled and published by the National Library but they are not comparable with those statistics published by the Bureau for previous years.

Number of publications received

The table below shows the number of books and pamphlets (including leaflets), published in Australia in 1972 and received by the National Library up to December 1972, by State and Territory of publication and publisher.

**AUSTRALIAN BOOKS AND PAMPHLETS PUBLISHED IN 1972^(a)
BY STATE AND TERRITORY OF PUBLICATION AND PUBLISHER**
(Source: *Australian National Bibliography*, National Library of Australia)

	<i>Number of titles p</i>
State or Territory—	
New South Wales	570
Victoria	539
Queensland	80
South Australia	90
Western Australia	50
Tasmania	10
Northern Territory	4
Australian Capital Territory	165
Papua New Guinea	22
Total	1,530
Publisher—	
Commercial	911
Commonwealth Government	148
State Government	167
Local government	31
Society, institution, company, private	273
Total	1,530

(a) Received by the National Library up to December 1972.

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 31 December 1972 the total holdings of the Archives Office throughout Australia amounted to 554,000 shelf feet of records, including 212,000 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, in accordance with the Government's access rules. These provide that, with certain exceptions, Commonwealth records which are 30 years old or more are available on open access to all accredited members of the public. In January 1972 the Government decided that the thirty year access rule should apply to Cabinet papers also; and that because of their special interest, the remainder of the Cabinet papers up to the end of 1945 should be released for public examination. It further decided that departmental papers for this period should become available at the same time as Cabinet papers. The Archives 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 1971–72 some 322,000 items were lent to departments. The Office carries out searches for departments and provides information from the records in its custody. Some 5,500 requests for these services were received in 1972. 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 459 public search tickets are currently valid. During 1972 inquiries were received from 514 researchers. There were 8,000 daily visits to archives search rooms and repositories by officials and the public, and 57,000 items were produced for consultation.

The headquarters of the Commonwealth Archives Office is in Canberra, and there are branches in Sydney, Melbourne, Brisbane, Adelaide, Perth and Darwin; additional branches are being established in Hobart and Townsville. In 1972 record surveys were conducted in Tasmania, North Queensland, the Northern Territory, Papua 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 30 years old are generally open to holders of a reader's ticket.

The State archives at 31 December 1972 occupied 33,953 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 over 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 135 accessions) and of trade unions (approximately 205 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 Australian National University and the University of Melbourne have strong collections covering a wide range of business activity, and are respectively notable for records of trade unions and mining companies. The University of New England concentrates on rural industries.

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 1971-72 admissions to the grounds were 877,681. The receipts of the zoological department of the Taronga Park Trust amounted to \$856,276 in 1971-72 and expenditure was \$748,915. Exhibits at 30 June 1972 comprised 887 mammals, 2,132 birds, 297 reptiles, 54 amphibians and 1,169 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. In October 1970, an extension was made to the Royal Botanic Gardens by the purchase of 395 acres at Cranbourne on Mornington Peninsula for purposes of a Botanic Gardens and Research Institute devoted to the growing, display, and study of Australian native plants.

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 Adelaide Botanic Gardens covers 45 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 comprehensive botanical and horticultural library is maintained. The State Herbarium, established in 1952, contains about 250,000 specimens.

A 35 acre property at Blackwood, containing a collection of Australian and South African plants and the Mount Lofty Botanic Garden (approximately 180 acres) are being developed and are expected to be opened to the public by the mid-1970's.

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 botanical 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 indigenous flora of the State is represented in the Western Australian collection by approximately 1,200 species which have been successfully brought to maturity. Trees native to the southern half of the State are grown as specimens in the arboretum.

Regular field work is undertaken to collect material and carry out botanical exploration. Seed of native plants collected is distributed from surplus stocks to botanical institutions throughout the world and sold to private growers and nurserymen. An annual seed list offers from 1,000 to about 1,200 species. About 13,000 packets of seed are distributed each year.

King's Park undertakes research into the biology of native plants. Apart from purely fundamental aspects, this program has two main purposes: firstly, to bring native plants into cultivation, including the improvement of the varieties grown and the methods of their propagation; secondly, to manage the extensive area of bushland park, which is an increasingly important facility for recreation in the urban environment.

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 1971-72, 366,241 people paid for admission into the zoo and in addition, 3,297 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. Four acres are used for an amphitheatre and contain a number of native and exotic plants. The Gardens are controlled by the Corporation of the City of Darwin.

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 1962 and it was declared a Nature Reserve under the Public Parks Ordinance on 27 October 1971. This Reserve has proved a great attraction for visitors with the attendance figure rising from 42,700 in 1967 to approximately 138,000 in 1972. The Jervis Bay Nature Reserve in the Commonwealth Territory of Jervis Bay consists of 10,670 acres of coastal area. Although the area has been managed as a reserve over a number of years, the Reserve was declared on 7 October 1971. Both Tidbinbilla and Jervis Bay Nature Reserves are designed to conserve the indigenous plant and animal communities and to enable the public to see the fauna in their natural habitat.

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 Federal and State, university departments and industrial organisations established scientific programs 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 22 and 26 respectively. There is also considerable scientific research effort in the areas of medicine, space, the environment, social sciences, atomic energy, meteorology and oceanography.

Commonwealth Government

The Commonwealth Government has played a key role in the war time and post-war development of the national scientific effort through programs 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 (for details *see* page 96) Research programs 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 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 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-six 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 1972-73 was about \$77,500,000. Some 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.

The Commonwealth Meteorology Research Centre

The Commonwealth Meteorology Research Centre is a joint agency of the Commonwealth Bureau of Meteorology and the CSIRO Division of Atmospheric Physics, and is located in Melbourne.

The work of the Centre consists of studies of the behaviour of the earth's atmosphere, with emphasis on general circulation, directed towards improvement in understanding the distributions and variations in climate on the earth, and towards improvement in the accuracy and time-scale of weather forecasting. This includes the formulation and testing of numerical hemispheric models and the modelling of circulations of a more regional type. The approach to these problems will, as desirable, develop an interpretation and use of new forms of observational data.

Australian Institute of Marine Science

The Australian Institute of Marine Science, to be established near Townsville, Queensland, over the next five years is one of the most recent ventures in scientific research by the Australian Government. The Institute will give particular attention to the ecology of the Great Barrier Reef and of associated biological systems, and also undertake oceanographic research in the Coral Sea and northern Australian waters.

Nuclear energy

The Australian Atomic Energy Commission is a statutory corporation which functions under the direction of the Minister for Minerals and Energy. 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.

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 special Commonwealth Government grant which amounted to \$200,000 in 1972-73. 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, Lucas Heights, New South Wales.

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

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. World-wide tenders for the station were called for, and assessed. However, in June 1971, the Government decided to defer a decision for 12 months in the light of Australia's financial circumstances at that time. In June 1972, the Government further deferred a decision on construction of the Jervis Bay nuclear power station for an indefinite period because of developments in the nuclear power industry overseas.

Nuclear fuel

Important discoveries of uranium have recently been made in the Northern Territory. Although their full extent has not yet been determined, early estimates suggest that Australia will become a major producer of uranium.

Ionospheric Prediction Service

The Ionospheric Prediction Service Branch of the Department of Science exists to assist users of radio communications to achieve the most effective and efficient use of radio transmissions which are dependent on or influenced by the ionosphere. The Branch staff make regular measurements of the state of the ionosphere above Australia and its territories and of the sun, and issue both long-term and short-term predictions of the state of the ionosphere as it applies to radio communication situations. To achieve this the Branch must also conduct research into the effects of solar and other geophysical phenomena on the ionosphere and into the subsequent effects on the propagation of radio signals. It performs other functions associated with the above activities including advisory and scientific data services.

State governments

Scientific programs 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 programs are generally of an applied nature and are related directly to the various responsibilities of the departments and instrumentality concerned. State government research programs 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

The fifteen universities in Australia are engaged in an extensive and diverse range of research programs in the physical and earth sciences, medicine, agriculture and biological sciences, and social sciences. University research is mostly of a fundamental character although some university departments are also concerned with applied research directed to the solution of practical problems. In 1959 the Council of the University of New South Wales established a non-profit research and development company, Unisearch Ltd., which provides technical advice and service for both large and small industrial organisations.

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. In 1972, 6,862 students were enrolled at Australian universities for higher degrees in science-oriented subjects.

Details of the courses offered in Australian universities together with background information on their teaching and research programs, 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 programs are mainly in the chemical, pharmaceutical, electronic, sugar, paper, mining and steel industries. Several industries have established research institutes or associations.

Productivity action in Australia

Two complementary organisations—the Productivity Group Movement and the Productivity Promotion Council of Australia are specifically concerned with action to improve productivity in Australia. Executive and administrative services are provided by the Department of Labour.

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. In April 1973, there were some 250 groups comprising over 5,700 member undertakings throughout the nation.

A group consists of about twenty members whose representatives meet regularly to exchange practical ideas and experiences and to seek improvement in the effectiveness of member's 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 Groups 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 a quarterly news magazine for groups, arranges productivity group publications, films and other aids to group operation and develops national themes and group expansion programs.

Productivity Promotion Council of Australia. The Productivity Promotion Council of Australia was inaugurated in September 1969. It is concerned with community education in productivity, stimulation of senior management's interest in productivity action and collaboration with employer and employee organisations, and professional bodies in arranging joint activities on factors affecting productivity. It also actively supports the development 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 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, South Australia and Western Australia.

Other research (including joint projects)

Antarctic research

Permanent Australian research stations have been established in the Antarctic since 1947, when the Federal Government organised the Australian National Antarctic Research Expeditions (ANARE). The Antarctic Division's budget for 1972-73 was approximately \$3,000,000.

During 1971-72 scientific work continued at Macquarie Island, Davis, Mawson and Casey, and summer bases were occupied at Moore Pyramid and Mount Creswell. Australia's work in the Antarctic region includes surveying, geology, geophysics, meteorology, glaciology, upper-atmosphere physics, cosmic-ray research, zoology, botany and some aspects of medical science.

Basic work in aspects of upper-atmosphere physics and comprehensive meteorological observations are conducted at all stations, and cosmic-ray research of particular interest at high latitudes is carried out at Mawson.

In glaciology, the major work at Casey was the drilling of boreholes to a depth of 100-200 metres at three sites on the local ice cap. Cores were returned to Australia for analyses. During summer, accurately fixed markers were established at eleven sites on the ice surrounding the southern Prince Charles Mountains, 520-830 kilometres south of Mawson. The markers will be re-measured in the future to establish the rate of ice movement. Investigations were made into ice thickness, snow accumulation, oxygen isotopes and sub-surface temperatures.

In biology, studies were conducted on the sea-birds and seals at all stations, and on the terrestrial invertebrates and the biota of the highly saline lakes at Davis. Environmental studies in human physiology were made by medical officers at the ANARE stations. In January 1972, geodetic surveys were conducted in the southern Prince Charles Mountains, using aircraft from a temporary camp in the mountains.

Space projects

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

Space tracking stations constructed and operated at a number of sites in Australia through joint arrangements with the United States of America have played an important role in the American manned space flight programs. For details *see*, page 96.

Upper atmosphere

A program of upper atmospheric research using sounding rockets of Australian manufacture is carried out from Woomera by Australian scientists under joint funding arrangements with the United Kingdom. A small annual grant has been made to the University of Adelaide for assistance in this field. The United Kingdom also conducts, at Woomera, a similar program with SKYLARK rockets.

Upper atmospheric research by means of balloons is conducted for Australian and American Universities using the balloon launching facilities made available under a co-operative agreement with the U.S. Atomic Energy Commission. *see*, also page 97.

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. Programs 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 Observatory. The astronomical research facilities of the Australian National University are located at Mount Stromlo (Canberra) and Siding Spring Mountain (Coonabarabran). The staff of the observatory are academic staff of the University's Institute of Advanced Studies and the permanent headquarters 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.

The observatory is the principal centre of optical astronomical research in the southern hemisphere. The 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 observatory 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 observatory has 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 observatory are published in international scientific periodicals, principally in the *Monthly Notices of the Royal Astronomical Society* and the *Astrophysical Journal*.

Mount Stromlo is situated at 35° 19' 16" south latitude and 149° east longitude at an altitude of 2,560 feet. It is 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 facilities were 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.

The Siding Spring astronomical site 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 some of the best environmental conditions for astronomical research to be found anywhere in Australia—considerably better than at Mount Stromlo.

The Anglo-Australian telescope project. 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 Spring (and quite separate from the existing Australian National University facilities). The *Anglo-Australian Telescope Agreement Act 1970* established the Anglo-Australian Telescope Board in February 1971 and this Board is the constructing and operating authority. The new instrument, which is scheduled to come into regular operation at the end of 1974, will be one of the largest optical telescopes in the southern hemisphere. It 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 of America

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.

During 1972 three binational seminars were organised, and a collaborative research project in nuclear physics was also arranged under the Agreement. Planning for a number of other projects was well advanced at the end of 1972.

Membership of the Association for Science Co-operation in Asia (ASCA)

The Association for Science Co-operation in Asia (ASCA) was formed in 1970 in consequence of an initiative taken by the Philippines. Australia participated in the organisational meeting in November 1970, and in the Association's first meeting in March 1972, both meetings were held in Manila. The second meeting was held in Tokyo in March 1973.

The following countries are at present members of ASCA: Australia, Bangladesh, India, Indonesia, Japan, Khmer Republic, Korea, Malaysia, New Zealand, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand, Viet-Nam.

The objectives of this Association are to exchange information on national resources and research programs, to identify areas of common scientific and technological interest, and to examine means for providing solutions to priority problems on a bilateral or multilateral basis through the resources and facilities of existing inter-governmental agencies (e.g. UNESCO) or through other means. Improvement of the welfare of nations in the ASCA region through this close-co-operation is a major goal of the Association.

The Australian Government has declared its intention of participating fully in international science and technology, and it will assist the developing nations to raise the standards and scope of their scientific and technological research programs. Some of this contribution will be made under the general aegis of ASCA. The Australian Department of Science is the ASCA correspondent Science Agency for Australia.

Funding of Scientific Research in Australia

A substantial proportion of the Australian Government's overall financial support for research in Australia is devoted to research carried out within the Government's own agencies. In addition, the Australian 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 \$20 million for the 1973-75 triennium. Of this amount \$17 million is for upper atmosphere research, \$0.9 million for research in marine science, \$0.65 million for multi-disciplinary research and \$0.55 million for the purposes and operation of a high resolution nuclear magnetic resonance spectrometer. A brief description of the history and activities of the Australian Research Grants Committee is given on page 668.

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

The Government, through the *Industrial Research and Development Grants Act 1967-1972*, provides a general incentive to Australian manufacturing and mining companies to increase the level of their expenditure on research and development, as a means of improving products and processes throughout Australian secondary industry.

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.

Under the legislation, which is administered by the Australian Industrial Research and Development Grants Board, grants in excess of \$44 million had been paid to 931 Australian companies to 30 June 1972. Special taxation concessions may also apply to expenditure on buildings, plant and equipment used solely for scientific research purposes.

The Australian 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 several primary industries.

A recently completed survey, project SCORE (Survey and Comparisons of Research Expenditure) was aimed at the collection of comprehensive information on financial and man-power resources devoted to scientific research and development in Australia. Data had been collected on the research and development (R and D) in both natural and social sciences from four sectors of the economy—government, business enterprise, higher education and private non-profit—for the year 1968-69. (The business enterprise sector had been dealt with by the then Department of Trade and Industry, the other sectors by the Department of Science). The survey provides information on the distribution of R and D expenditure between the fields of science, the source of funds for R and D, the nature of expenditure, as well as on man-power. The analysed and now published information is comparable with similar data collected by other countries and is expected to be of considerable value and importance to those concerned with the management and planning of science and technology in Australia.

Scientific societies

Royal Societies

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

ROYAL SOCIETIES, DECEMBER 1972

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>
Year of charter	1866	1859	1884	1880	1913	1844
Number of members	353	616	280	300	265	583
Volumes of transactions issued(a)	105	115	83	96	61	106
Number of books in library	40,801	33,500	77,000	30,000	8,900	37,600
Societies on exchange list	396	336	335	373	248	293

(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, administers research fellowships provided by industry and prepares reports on matters of national importance.

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 156 Fellows.

The Academy is financed by general and special purpose grants from the Commonwealth Government and from private sources. 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 45th ANZAAS Congress was held in Perth, 13 to 17 August 1973. Further ANZAAS Congresses are set down for Canberra, January 1975, Hobart 1976, Melbourne 1977, New Zealand 1979 and Adelaide 1980.

The ANZAAS Central Office is in Sydney and Divisions operate in New South Wales, Victoria, South Australia, Western Australia, Papua New Guinea, the Australian Capital Territory, New Zealand and Queensland.

Other scientific societies

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.