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CHAPTER XI.

EDUCATION.

§ 1. Evolution of Educational Systems in Australia.

An account of the development of the Australian school system up to 1929 is to be found in Year Books Nos. 1, 2, 17 and 22. Although the general pattern has not altered in any fundamental way, marked changes have taken place in the educational programme since 1929 and in Year Book No. 40 a reasonably complete review of the changes and current practices was presented from material furnished in the main by the Commonwealth Office of Education.

§ 2. Government Schools.

1. *Administration.*—Education is the responsibility of the State Governments. The Commonwealth is, however, empowered to provide financial assistance to students and meets the full cost of education in Commonwealth territories, although this is largely provided by State education authorities.

Although there is a tendency towards regional administration, State educational administration is centralized. The permanent head of the Department of Education or Public Instruction in each State is responsible to the Minister for Education (or Public Instruction). Contact with the schools is maintained principally through Inspectors, called Superintendents in Western Australia and Tasmania. Departments are usually divided into primary, secondary and technical divisions. Some technical colleges are, however, in a large measure autonomous. Universities are independent foundations although much of their income is derived from State and Commonwealth grants.

Examination Boards, representative of the Universities, the Education Departments and non-government schools, control public examinations and syllabuses, and curriculum committees prepare primary and secondary curricula. State Ministers for Education meet periodically as the Australian Education Council, to discuss matters of common interest, and Directors of Education meet annually as a Standing Committee of this Council.

2. *The School System.*—(i) *Compulsion.* In all States, there is legislation for compulsory school attendance. The original Victorian Education Act was passed in 1872, followed by similar Acts in Queensland (1875), South Australia (1878), New South Wales (1880), and Tasmania and Western Australia (1893).

In 1952 the ages between which children were legally required to attend school were as follows:—New South Wales, 6 to 15 years; Victoria, 6 to 14 years; Queensland, 6 to 14 years; South Australia, 6 to 14 years (children may not leave school until the end of the term during which they reached the age of 14 years); Western Australia, 6 to 14 years; and Tasmania, 6 to 16 years.

In Victoria, South Australia and Western Australia amendments to the Acts have provided for the raising of the school leaving age to 15 years, but to date, this legislation has not been implemented.

Schooling may be given in government schools (including correspondence and special schools) or non-government schools and in a small minority of cases by private tuition.

The employment of children of school age is prohibited by law.

(ii) *Beyond Compulsion.* Since 1929 especially, the development of large-scale industry and scientific farming has demanded a diversity of skills, and a general raising of the educational level of the population. The raising of the school leaving age in two

States and the tendency everywhere for children to stay longer at school have been expressions of public realization of this. In 1951 less than half of all children left school when they reached the age limit for compulsory attendance. Indeed almost half now proceed to some form of further education beyond secondary school, either as full-time students, as part-time apprentices or trainees released during the day by their employers, or as part-time evening students.

In the early years of government provision of education, the main emphasis was on the primary school, which catered for children under compulsion and offered a course largely confined to the tool subjects, reading, writing and arithmetic. However, a process of extension and differentiation both at the bottom—infants' schools and kindergartens—and at the top—secondary schools—was well under way long before 1929.

3. *The Educational Ladder.*—(i) *Infants' Schools.* It is now customary, although not compulsory, for children to begin school when they are five years old. In larger primary schools they enter the infants' school, and in smaller schools "infants' classes", which occupy two or three years, the first year in some States being called "Kindergarten" or "Preparatory". The emphasis in the infants' classes is very much on general development on play activities and on the informal aspects of the educational processes. In some cases the first two grades of primary education, together with any "Preparatory" or "Kindergarten" classes, are to be found in separate infants' schools or departments. But whether in a separate establishment or as a part of a primary school, there is a gradual move towards formal instruction. At the end of the period most children are able to read with some fluency, carry out simple arithmetical operations founded on the basic number facts, and can write in pencil. In addition, they have acquired skills with art materials and the like. A good deal of the instruction is carried on through activity methods, involving, for example, dramatic work, puppetry, and school "shops". Children then pass at about the age of 8 or 9 to the more formal primary school, in which they normally spend four or five years.

(ii) *Primary Schools.* The main emphasis in the primary school as distinct from the infants' school still lies, as it always did, on the tool subjects (reading, writing and arithmetic) and, in more recent years, oral language. Since 1929, however, the methods of teaching have undergone considerable changes. Changes in the purpose and outlook of educationists, and the raising of the professional standards of teachers, have made for greater freedom for pupils and teachers, some departure from the methods of mass instruction, and the closer linking of the curriculum with the child's social environment.

In general, it is true to say that in 1951 there was less emphasis on results, and that basic skills are taught at a somewhat later stage. At the same time, the curriculum has been broadened. More individual instruction has led to a reduction of minimum standards of achievement for the less able and a stress on curriculum enrichment for the bright. Retardation, i.e., the repeating of grades, has been considerably reduced, the aim being for each child to remain with his age group. In all States "opportunity classes" exist for backward children, and in one State "opportunity classes" are provided for the especially bright.

(iii) *Secondary Schools.* At the age of 12 or 13 (in Queensland, 14) children transfer to a secondary school course. In the cities and larger country centres this is provided in a separate school, but in less densely populated areas secondary classes share the same buildings as primary classes. In rural areas secondary pupils may share teachers or classrooms with primary pupils, and even in one-teacher schools a few secondary students may carry out correspondence assignments under the supervision of the primary teacher-in-charge.

Secondary curricula have developed from the matriculation requirements of the universities. English grammar and literature, mathematics, including algebra, geometry and trigonometry were the core. Languages, chiefly Latin and French, or science, chiefly physics and chemistry, and history had an important place. Geography and drawing were often taken in the first two or three years.

The academic course for matriculation has undergone some change since 1929. Greater emphasis has been placed on oral language and written expression in the English course; Latin has waned in popularity and modern languages other than French and German are being taught in a few schools. A general science course has been introduced in some States, and social studies, a synthesis of history, geography and civics, is a subject to third-year level. More emphasis has been placed on art, music and physical education. Since 1929 the provision of a secondary education for all has gained ground rapidly, although the entrance requirements of tertiary institutions are still provided for.

Consequently, alongside the academic course, other courses have grown up. In country areas they may be offered in the same school or the academic course may even be largely abandoned. In the city, it is usual to offer non-academic courses in separate schools. The academic schools and multi-lateral country schools are usually known as High Schools, while the other types are generally distinguished by such names as Junior Technical Schools and Home Science Schools.

Particular mention should be made of the recent development of the all-age consolidated school sometimes with an agricultural bias, found under various names in different States. Tasmania and South Australia adapted the idea of the English village area schools to Australian conditions and established "Area Schools", some of which have farms attached.

The courses followed in the non-academic schools are in general broader than in the academic schools. There is less concentration on establishing an academic discipline and method peculiar to each subject, but more attention to correlation between fields of knowledge, sometimes expressed by projects involving them all. Less time is generally devoted to mathematics and the formal sciences, more time to practical work and to art and musical appreciation. In English, oral language is emphasized rather more and grammar much less than in the academic schools.

(iv) *State Details.* Very brief particulars of the position in each of the States were given on pp. 432-3 of Year Book No. 40.

4. *Examinations and Accrediting.*—(i) *Examinations.* Before 1929 most States had three examinations for school children. The first came at the end of primary school and was variously known as the "Qualifying Certificate" or "Scholarship". These examinations were regarded as a qualification for secondary education. The third came at the end of the secondary course, at the age of sixteen to seventeen, and was known as the "Leaving" or "Senior Public" Examination, which qualified students for university matriculation. Between these came the "Intermediate Certificate" or "Junior Public Certificate", usually one or two years before the end of the full course of secondary schooling. A pass in this examination was a useful entrance qualification for clerical occupations, nursing, some Public Service positions, and other callings requiring academic training.

The entrance examination for secondary schools was administered by the Education Departments, although students from private schools also sat for it. The two higher examinations were generally under the control of a board, on which universities, Education Departments and non-government schools were represented.

By 1950 the external examination for secondary school entrance had been abolished in every State except Queensland, where the age of transition is fourteen and the "Scholarship" Examination must be passed to entitle the student to free secondary education and, if necessary, boarding allowances. The external Intermediate Examination had declined in importance, some States substituting internal examinations in some, or all, schools, other States providing a variety of internal certificates from different types of schools. The Leaving Certificate in most States had not been supplanted, but had been modified to provide a greater variety of subjects and, as for example in mathematics, the opportunity of choosing several specialized courses or a broad course.

The length of the secondary course has been increased in two States from two to three years for the Intermediate Certificate and from a further one to a further two for the Leaving. South Australia has a further year beyond the Leaving Certificate for a separate

examination known as "Leaving Honours". Only the "Leaving Certificate" is necessary for matriculation, but good results—credits as distinct from passes—in the Leaving Honours Examination may carry exemption from some subjects of the first year university course. In Victoria a similar system had operated, but the optional Leaving Honours year has been replaced by adding a further year after the Leaving Examination for a course leading to a special matriculation examination. Separate matriculation examinations also exist in New South Wales, Western Australia and Tasmania, but successful Leaving candidates are not required to sit.

(ii) *Accrediting.* The system of granting certificates, or credit for subjects passed, without external examination is a major development and now operates in four States. Credit is assessed mainly on the student's record of work for the year, although some internal examinations are generally given. Syllabuses can be less rigidly controlled and can be more freely adapted to local conditions, although standards are maintained by the supervision of the central authority.

(iii) *State Details.* The details of accrediting in each State were given on pp. 433-4 of Year Book No. 40.

5. *Health Services to Schools.*—During the period under review, health services to schools have extended far beyond the routine medical and dental inspections which operated in 1929. Information relating to school medical and dental services is given in Chapter XIII.—Public Health and Related Institutions.

6. *Guidance.*—Each of the Australian States has now a comprehensive system of educational guidance administered by trained and experienced educational psychologists and backed by a system of school record cards. In general, the functions of these services are:—selection and differentiation for secondary education, diagnosis and guidance of atypical children, preliminary vocational guidance, and in some States, research. The weight given to each of these functions varies considerably from State to State, but since the early 1930's there has been a steady and continuous progress towards thorough educational guidance services for all children.

The Vocational Guidance Division of the Commonwealth Employment Service co-operates with State Education Departments by giving post-school vocational guidance, using the data obtained and made available by the Education Departments during the school career of the children.

7. *Research.*—(i) *State Education Departments.* Since 1929 all State Education Departments have set up research branches which function as integral parts of head offices. In several States the officer who directs research is also responsible for the guidance service offered by his Department. The research undertaken is directed toward departmental activities and the findings of research are examined carefully in the determination of policy and procedures; in addition, many problems of immediate importance are handled. In the majority of States, too, the Research Branch supervises the collation of statistics; it also plays an important part in curriculum revision and modification of examinations.

(ii) *Australian Council for Educational Research.* Research in education is also carried out by a non-governmental body called the Australian Council for Educational Research. It is engaged on educational research in a wide variety of fields, ranging from tertiary to pre-school education. It conducts surveys and enquiries, makes grants to approved educational investigators, serves as a centre to disseminate educational information, provides training for research workers, and standardizes and distributes educational and psychological tests for use in Australia. Although this Council is an autonomous body, the Commonwealth and State Governments contribute some financial support to it.

8. *Atypical Children.*—Since 1929 there has been a marked increase both in the range of special provision and in the number of schools or classes for pupils who, for one reason or another, cannot progress to their best advantage in an ordinary school. Among groups given special attention are the mentally backward, the gifted, the physically

handicapped, the blind, deaf and dumb, the epileptic, the cerebral palsied, the partially sighted, the hard of hearing and the delinquent. The provision of special schools and classes has involved the appointment of departmental specialists, special training courses and close liaison with school health services. In some States, special clinics attached to hospitals or functioning as an independent child welfare service handle cases of personality maladjustment; they work in co-operation with the psychological services of the Education Departments.

9. *Education of Migrant Children.*—From 1945 to 1951, the net increase through migration in children at Australian schools was about 75,000, or 6 per cent. of the total school age population, more than half being alien and non-English speaking on arrival. During this period the impact of the increased birth-rate of the Australian population in the mid 1940's also contributed to the heavy burden placed on State education resources.

It was generally considered desirable for migrant children to attend schools with Australian children, although some purely migrant schools were built, with Commonwealth assistance, in hostels, etc., and in some States, schools or classes exclusively for alien migrant children assisted the children until they could take their place in their age group classes in the normal schools. As was to be expected, alien children found little difficulty in learning the English language, which is the language of instruction in all schools in Australia. Non-government schools absorbed a significant proportion of migrant children.

The major problems were those of staffing and accommodation. The Commonwealth assisted by providing school buildings in migrant centres and in some residential hostels. Some States relieved the staffing position by employing suitably qualified English-speaking migrants as teachers in schools exclusively used by migrant children, although the policy of teaching migrant children in schools with Australian children was adhered to wherever possible. Where it was not possible, particularly in large migrant centres, parents were encouraged to move into Australian communities. In almost all cases children of secondary school age were accommodated in existing Australian secondary schools.

10. *Education of Native Children in Australia.*—The Commonwealth Government is responsible for the education of full-blood native children in the Northern Territory. Each State has responsibility for the welfare and education of native children within its boundaries.

Native children are admitted to Government schools in all States except in areas where separate facilities are provided for the natives. In those States where natives are more numerous special schools are located at or near aboriginal reserves, settlements and stations. The schools are for the most part staffed by teachers from the Education Departments, and the curriculum is similar to that in ordinary Government schools with a bias towards handicrafts. Numbers of native children also attend the mission schools conducted in several States by the various denominations. The standard of education in these schools generally is similar to that in the Government schools.

11. *Provision for Rural Areas.*—(i) *General.* The population of Australia is so scattered that there is a problem in providing primary, and more especially secondary, education for all eligible pupils. One method of meeting this problem was the establishment of a wide network of one-teacher primary schools, staffed in the main with trained teachers. The practice of sending itinerant teachers to outlying areas is still in force in the far north of Western Australia, and mobile railway cars are used for technical and agricultural education in New South Wales and domestic science in Queensland. However, in general, it has been the practice to bring the child to the educational facilities rather than vice versa.

(ii) *Subsidized Schools.* Where there is a group of children too few in number to warrant the establishment of a one-teacher school, a "subsidized school" may be opened. The Education Department pays part of the cost, and in some States appoints a teacher. Some States also administer "provisional schools", which are completely financed by the Government, but which are not large enough, or sufficiently assured of adequate continued attendance of pupils, to warrant classification as permanent schools.

(iii) *Consolidation.* As early as 1904, the policy of transporting pupils to larger and more central schools began to come into operation. Trains, bicycles and horses were first employed, but the use of buses has led to a very great development of school transport systems, particularly since 1935. This policy, known as "consolidation", has been responsible for a substantial reduction in the number of small schools, and is one of the most striking developments of the past twenty years. The consolidated school is usually not merely a larger primary or secondary school; it generally provides a curriculum specially adapted to the needs of the rural area it serves. Organized transport for children attending country primary and secondary schools consists of more than 2,300 services at a total cost of £2½ million.

(iv) *Special Assistance.* Another way of bringing children and schools together has been the provision of financial assistance for children who have to live away from home in order to attend school. Most of these board in private homes but there are six government hostels and 56 private ones (excluding private boarding schools) which cater for more than 1,500 children of secondary school age and a small number of primary school children also. Special scholarships for country children, giving allowances for living away from home, and substantial fare concessions for vacation travel are provided by all States.

(v) *Correspondence.* For those who were still unable to attend school, correspondence tuition had been established in every State by 1929. These schools have grown in size and extended in scope since then, and Technical Correspondence Schools, which grew out of the Commonwealth scheme of technical training, were established in each State by 1942, and have grown under State administration since. An interesting development in 1947 was the appointment of a Liaison Officer for Correspondence School pupils in Tasmania. The activities have been made more effective by his personal contact with pupils and parents and his practical aid in supervision.

12. *School Broadcasting in Australia.*—Over the years an extensive school broadcasting system has been developed in Australia by the co-operative efforts of the Australian Broadcasting Commission and education authorities. The School and Youth Education Department of the A.B.C. is responsible for the broadcasting of the programmes, but it draws freely on the advice and services of teachers and maintains permanent liaison officers with the Education Department. More than two-thirds of Australian schools are equipped with radio receivers.

School broadcasts are presented as part of the regular A.B.C. programmes without separate stations or wave lengths. Special efforts are made, however, to relate the broadcasts to the actual work in the schools by the extensive distribution of booklets giving details of programmes in advance and subject notes accompanied by picture sheets, work books, and teacher's notes.

Broadcasting has proved to be a most effective way of reaching the outback children of Australia. The "Kindergarten of the Air", begun in 1942 as a service to children unable to attend kindergarten, has proved popular in both town and country. Children are encouraged to take part in the programme in response to suggestions made by the broadcaster. Radio lessons have been designed to supplement those being done by means of correspondence.

13. *Teacher Training and Recruitment.*—(i) *General.* The training of Government school teachers is carried out by the State Education Departments, but in most States persons who wish to train for teaching in private schools may attend government training colleges on payment of a fee. Many non-government school teachers have been drawn from the government teaching services; others have been recruited at the university graduate level. Private training institutions also provide some teachers.

An account of the early growth of teacher training systems is to be found in Year Book No. 22 and subsequent developments were reviewed extensively in Year Book No. 40. By 1929, the pupil-teacher system was universal except in one State. The student spent one or two years, or even longer, teaching in school under supervision, studying and receiving instruction from the headmaster in the art of teaching. In some

States, at the end of that period he passed into a teachers' college. After emerging as a trained teacher, he often continued his studies to obtain a series of graded certificates which were necessary for promotion. The pupil-teacher system has, however, been abandoned as the chief method of training teachers and teacher students are now recruited at matriculation level and given a professional course of training at colleges controlled by Education Departments or by University Departments of Education. The raising of entrance standards and prolongation of training has led to a close association between the Education Departments and Universities. The trend has been towards placing teacher training on the same basis as other professional training.

Stemming from the diversion of thousands of teachers into the armed services during the war of 1939-45 there is at present a shortage of teachers in Australia. Measures taken to overcome this shortage include publicity drives to attract recruits, increased allowances to student teachers amounting to some States to more than £200 per annum, substantial increases in teachers' salaries and liberalization of promotion systems.

Despite increased training facilities and higher teachers' college enrolments in the post-war period, the supply of teachers throughout Australia has done little more than replace wastage, and has not kept pace with the rising enrolments. Difficulty is being experienced in staffing small schools in remote areas, while the shortage of secondary scientific and mathematics teachers is reported to be acute in some States.

(ii) *Training Colleges.* Every State maintains at least one teachers' training college. Most students are trained at colleges in the capital cities, although there has been a movement towards the establishment of colleges in the country. In 1951 there were in Australia fifteen Teachers' Colleges conducted by Departments of Education and professional training for teachers was provided by five universities.

The entrance standard is generally at the Leaving Certificate level at about the age of seventeen. In some States intending teachers can obtain a scholarship at the Intermediate Certificate level to enable them to complete teachers' college entrance requirements. In return they are required to enter a bond of service additional to that normally required of teachers' college trainees.

(iii) *Training of Primary Teachers.* In most States, teachers for government primary schools are trained in teachers' training colleges controlled and administered by the State Education Departments. Colleges are conducted on a co-educational basis, and departmental trainees are given a monetary allowance while in training and are required to enter into a bond to serve for a specified period or to repay all or portion of the cost of training.

In general, the duration of courses is two years for primary teachers, including infants' teachers. There is a variety of subject detail in training courses in the different States. The basic subjects taken in the various courses are principles, history and general methods of teaching, special methods of teaching primary school subjects and educational psychology. In addition, students undertake courses in physical education, art, music, school hygiene and handicrafts as well as lectures designed to widen their own cultural background. In Tasmania teacher training is provided by the University and in South Australia student teachers attend lectures in normal degree courses at the University to complete the academic part of their training.

(iv) *Training of Secondary Teachers.* Prospective secondary teachers are generally required to undertake a degree course, and then are required to undertake a course of professional training of one year's duration. This normally qualifies trainees for a Diploma in Education. The year's professional training in education includes lectures and seminars on subjects associated with educational theory and practice, study of methods and techniques appropriate to secondary school subjects, periods of practice teaching and the observation of classroom techniques in the teaching of special subjects.

(v) *Training of Specialist Teachers.* Teachers of specialist subjects such as music, art, manual arts, physical education and domestic science receive from two to five years' training. Physical education courses are generally conducted at teachers' colleges

or at a university; use is made of technical colleges and conservatoria of music for other specialist training. Teacher trainees attending the institutions, however, are regarded as being in attendance at a teachers' training college and are normally required to spend a portion of each week at the teachers' college.

(vi) *Training of Technical Teachers.* Teachers of general subjects in technical schools and colleges generally receive their training either as primary or as secondary teachers and after some experience in either or both fields are transferred to a technical institution.

Teachers of specialist subjects in technical schools are in the main recruited from the ranks of qualified tradesmen engaged in either industry or commerce. Upon appointment teachers of technical subjects usually receive instruction in classroom teaching techniques and procedures. A Technical Teachers' Training Centre has been established in Victoria.

(vii) *In-service Training.* As almost all teachers now enter the profession by way of Teachers' Training Colleges, where they receive basic professional training, in-service training in Australia is directed chiefly towards keeping teachers abreast of developments and adding to their basic training. Education Departments have always encouraged practising teachers to pursue university courses, which are free to approved applicants in some States, and facilities have been made available for teachers to obtain the academic qualifications for higher certificates where such exist.

Efforts are also made to keep teachers informed of new ways of meeting classroom problems. District Inspectors are usually responsible for the conduct of meetings where professional topics are discussed and for the arrangement of visits to other schools where special work is being done. Official publications of the Education Departments contain articles dealing with both educational theory and practice. In most States, the teachers' organizations publish magazines containing, among other material, articles dealing with educational theory. These reach the great majority of government teachers.

(viii) *State Details.* The details of teacher training in the States were given on pp. 442-3 of Year Book No. 40.

(ix) *Sex and Status of Teachers.* Although about one half of the teachers in State schools in Australia are men, the ratio varies considerably from State to State. There has been a continuous increase in the proportion of men since 1929, at first because of a government policy of male preference during the period of severe unemployment, and since then, the difficulty of recruiting females at a rate rapid enough to replace their greater "wastage" rate. Only women teachers are employed in the infant schools and generally in girls' departments. However, men predominate in the senior positions, both because of their greater preponderance amongst those with long service and because the higher promotion positions are generally reserved for men, except for some in infants' schools and girls' schools which are reserved for women.

14. *School Buildings and Grounds.*—In 1930, school building programmes were seriously cut because of the financial difficulties of the depression. The 1939-45 War intervened before school building could be resumed on a large scale. During the post-war period the building of schools was given a high official priority in order to obtain labour and materials. Most schools are therefore either quite new or more than 20 years old.

The post-war buildings fall into two big groups, portable and permanent. In primary schools, in particular, some Education Departments favour a mixture of both kinds of classrooms, thus enabling them to cope with the changing age-composition of different areas. Prefabricated classrooms have been imported or locally produced in very large numbers—the Bristol aluminium dual units being especially popular. Generally, these have been used to extend existing schools, although in a few cases entire schools have been composed of them. To meet the very acute shortage all kinds of emergency measures have been taken, including the hiring of hals, and the use of cloak-rooms, weather sheds and verandahs for class instruction. However, a considerable number of modern and imposing new secondary schools has been built and equipped with special facilities for the varied activities of the pupils.

15. *Equipment.*—(i) *Text Books and Materials.* All equipment regarded as essential by the Education Department in each State, including equipment for manual training and home arts, is provided free of charge, except for text books for pupils.

The more widespread application in recent years of activity and play-way methods in the infant schools has been stimulated by the provision of a greater volume of free materials such as blocks, counters, peg-boards and modelling clay.

Secondary schools are almost always provided with laboratories, but these are not found in primary schools, with the exception of the larger all-age schools in the country.

(ii) *Furniture.* There has been considerable development since 1929 in this field. Originally most schools were equipped with long desks and benches, seating six to eight pupils. By 1929 nearly all of these had been replaced by the standard dual desk with tip-up seat, and in infant classes by individual chairs and small tables. No important change in furniture took place then until the post-war period, when considerable research was undertaken on posture and the physical measurement of children. The dual desk is now being replaced in some States by the individual table and chair, provided in a range of sizes suitable to each class. In some States tubular steel is used. The new type of furniture is more suitable for flexible arrangements of the class in line with modern educational practice.

(iii) *Visual Aids.* The period since 1929 has seen a remarkable growth in the use of the visual aids in education. After some resourceful pioneering work had been done by individuals the Departments of Education between 1936 and 1939 appointed special committees and teacher demonstrators to guide the development of the new educational medium. Production units to produce film strips suitable for use in schools were set up in five States and an Australian-produced film-strip projector was manufactured. After the war, the emphasis moved from the strip projector to the 16 mm. sound machine and the National Film Board, set up by the Commonwealth Government to promote the use of educational films, became the main producer of these films. Film companies are also designing films primarily for class-room use and several manufacturers have produced 16 mm. sound projectors. Education Departments have their own film libraries to distribute films to schools and borrow largely from the National Library which is the main distributing centre for non-technical films in Australia.

16. *Parent and Citizen Organizations.*—In Australia, where all Government schools are administered by central Departments, there is little opportunity for local administration of education. Public interest is expressed through Parent and Citizen Organizations. Although the names of these bodies differ in the various States they have similar aims which are:—to promote the interests of the school by bringing parents, pupils and teaching staff together; to help provide teaching aids not supplied by the Department; to provide recreational materials; to assist in the regular attendance of children at school; to help find accommodation for teachers.

In all States the Parent and Citizen Organizations have affiliated to become State-wide bodies. These, in turn, are the members of the Australia-wide body, the Australian Council of School Organizations.

17. *Statistics of Government Schools.*—(i) *General.* The Government schools shown in the following tables include primary, secondary, junior technical, correspondence and subsidized schools, but exclude senior technical colleges, evening schools and continuation classes.

Particulars relating to Senior Technical Colleges are given in § 5 following.

(ii) *Returns for Year 1952.* (a) *General.* The following table shows for 1952 the number of Government Schools, together with the teachers employed, teachers in training and the number of individual children enrolled.

GOVERNMENT SCHOOLS(a), 1952.

State or Territory.	Schools open at end of year.	Teachers Employed (excluding Teachers in Training).	Teachers in Training.	Net Enrolment.
New South Wales(b)	2,530	14,169	2,468	453,632
Victoria	2,013	9,842	1,744	278,755
Queensland	1,571	6,144	729	183,385
South Australia	682	3,756	384	104,530
Western Australia	500	2,726	638	(c) 76,874
Tasmania	315	1,717	236	46,022
Northern Territory(d)	9	53	..	1,457
Australia	7,620	38,407	6,199	1,144,655

(a) Excludes Senior Technical Colleges.
weekly enrolment.(b) Includes Australian Capital Territory.
(d) Year ended 30th June, 1953.

(c) Average

(b) *Average Enrolment and Attendance.* The methods of calculating enrolment are not identical throughout the States. The unit in South Australia is the daily enrolment, while New South Wales, Victoria, Western Australia and Tasmania employ the weekly enrolment. In Queensland no average enrolment is compiled, and the August census enrolment figure has been taken.

As with enrolments, there is not complete uniformity in arriving at the average attendance, but most of the States aggregate the attendances for the year and divide by the number of school sessions. New South Wales and Western Australia, however, employ averages of term averages. The matter of securing uniformity in these respects has been under consideration for some time, and was discussed at a meeting of Directors of Education at a conference held in Sydney in July, 1947. The average enrolment and attendance in each State and Territory during 1952 are shown below :—

GOVERNMENT SCHOOLS(a) : AVERAGE ENROLMENT AND ATTENDANCE, 1952.

State or Territory.	Average Weekly Enrolment.	Average Daily Attendance.	Percentage of Attendance to Enrolment.
New South Wales(b)	424,152	376,098	88.67
Victoria	264,869	238,798	90.16
Queensland	(c) 174,837	154,666	88.46
South Australia	100,379	91,815	91.47
Western Australia	76,874	71,654	93.21
Tasmania	45,422	41,824	92.08
Northern Territory (d)	1,457	1,216	83.46
Australia	1,087,990	976,071	89.71

(a) Excludes Senior Technical Colleges.
enrolment at 1st August, 1952.(b) Includes Australian Capital Territory.
(d) Year ended 30th June, 1953.

(c) Census

Recurring epidemics of contagious diseases, minor illnesses and bad weather are all serious factors which affect the full attendance of pupils at school.

The average attendance at Government Schools in Australia is shown below for the year 1891 and at varying intervals to 1952.

GOVERNMENT SCHOOLS(a) : AVERAGE ATTENDANCE, AUSTRALIA.

Year.	Total Population. (b)	Average Attendance.	Year.	Total Population. (b)	Average Attendance.
	'000.	No.		'000.	No.
1891	3,421	350,773	1941	7,144	732,116
1901	3,825	450,246	1947	7,639	754,799
1911	4,574	463,799	1948	7,795	770,554
1921	5,511	666,498	1949	8,051	810,800
1931	6,553	817,262	1950	8,316	844,123
1933	6,657	805,334	1951	8,539	890,514
1939	7,005	744,095	1952	8,753	976,071

(a) Excludes Senior Technical Colleges.

(b) At 31st December.

(c) *Schools in the Australian Capital Territory.* During 1952 eleven Government Schools were in operation in the Australian Capital Territory; enrolment numbered 3,108; and average attendance was 2,835. By arrangement with the Commonwealth Government these schools are conducted by the New South Wales Education Department with provision for primary and secondary education, the Department being recouped for expenditure. The cost of the teaching staff in 1952-53 was £118,641, while the cost of general maintenance amounted to £83,439. The figures quoted exclude enrolment, etc., at the Canberra Technical College and the Evening Continuation School. For further particulars of education facilities in the Australian Capital Territory see Chapter V.—The Territories of Australia, Australian Capital Territory, p. 108.

(iii) *Expenditure.* (a) *Maintenance—All Schools (excepting Senior Technical Colleges).* The net expenditure on maintenance in all grades of schools, excepting senior technical colleges and, in Victoria and (in 1939) Tasmania, junior technical schools, and the cost per head of average attendance for 1939 and the five years ended 1952 are shown in the following table. The figures do not include expenditure on buildings, which is shown separately in a subsequent table. In all expenditure tables the figures for Victoria, Queensland and Western Australia relate to the financial year ended six months later than the calendar year.

GOVERNMENT SCHOOLS(a) : NET EXPENDITURE ON MAINTENANCE.

Year.	N.S.W. (b)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Total.
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TOTAL (INCLUDING SECONDARY SCHOOLS).
(£.)

1939	4,598,376	2,667,094	1,481,390	854,037	730,500	(c) 320,616	6,802	10,658,824
1948	8,065,326	5,226,383	2,898,833	1,703,589	1,488,193	810,342	25,580	20,218,246
1949	9,426,879	6,302,506	3,388,274	1,653,121	1,801,259	928,201	35,322	23,832,742
1950	10,830,086	7,763,962	3,963,736	2,135,007	2,283,666	1,082,758	40,578	28,399,793
1951	13,222,500	9,776,057	4,813,817	3,050,624	3,288,769	1,367,216	57,156	35,574,088
1952	17,844,140	11,930,560	5,630,480	3,767,881	3,897,881	1,916,383	88,176	45,075,501

PER HEAD OF AVERAGE ATTENDANCE.
(£ s. d.)

1939	15 12 2	14 1 4	13 0 9	12 18 4	14 5 7	11 7 6	11 3 0	14 6 7
1948	26 10 6	27 16 0	23 18 6	25 6 0	25 15 9	25 12 3	34 16 0	26 4 9
1949	29 9 10	32 4 1	26 6 0	27 2 7	20 15 4	27 14 1	31 13 3	29 7 11
1950	33 0 6	37 11 1	20 17 1	31 11 8	36 0 8	30 6 3	39 14 1	33 12 1
1951	37 16 1	44 12 4	33 11 8	36 18 9	49 2 1	36 11 1	52 6 10	30 11 0
1952	47 8 11	49 19 3	36 8 1	41 0 9	54 8 0	45 16 5	72 10 3	46 3 7

(a) Excludes Senior Technical Colleges.

(b) Gross figures, receipts not being available.

(c) Excludes Junior Technical Schools. See above.

(b) *Maintenance—Secondary Schools.* The figures shown in the preceding table refer to expenditure on maintenance of all Government primary and secondary schools, excluding senior technical colleges. It has been the practice of the State Education Departments to give separate information in regard to the cost of secondary education. The difficulty of making any satisfactory allocation of the kind, however, will be understood, when it is realized that both elementary and higher education are in some instances given in the same school and by the same teacher. Unfortunately, too, the term "secondary" has not the same meaning in all States. It might be mentioned here that similar difficulties arise in connexion with the apportionment amongst the various branches of expenditure on administration, inspection and the training of teachers. The figures quoted hereunder in regard to cost have been mainly extracted from the Reports of the State Education Departments, and are subject to the above qualifications.

GOVERNMENT SECONDARY SCHOOLS(a) : EXPENDITURE ON MAINTENANCE.

State.	1951.		1952.	
	Cost.	Cost per Head of Population.	Cost.	Cost per Head of Population.
	£	£ s. d.	£	£ s. d.
New South Wales	3,975,808	1 4 0	5,102,176	1 10 1
Victoria	2,515, 00	1 1 10	3,084,780	1 6 1
Queensland	513,834	0 8 5	602,682	0 9 8
South Australia	740,728	1 0 7	898,831	1 4 4
Western Australia	636,773	1 0 2	900,098	1 9 5
Tasmania(b)	260,278	0 17 0	372,493	1 4 6

(a) Excludes Senior Technical Colleges.

(b) Includes High and Junior Technical Schools.

The figures in all cases exclude the cost of buildings. In Queensland, the figure quoted excludes the cost of the Agricultural High School and College, which amounted in 1951-52 to £184,838, and in 1952-53 to £198,876.

(c) *Buildings.* Expenditure on Government School buildings, excluding senior technical colleges, for the years 1939 and 1948 to 1952 was as follows :—

GOVERNMENT SCHOOLS(a) : EXPENDITURE ON BUILDINGS.

(Including Loan Fund Expenditure.)

(£.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Total.
1939	411,720	206,481	174,725	85,539	56,994	60,011	539	996,009
1948	1,069,789	1,017,227	305,776	261,683	303,213	185,286	1,790	3,145,764
1949	1,277,015	2,015,972	412,753	355,494	454,207	288,057	12,522	4,846,020
1950	2,163,917	2,364,674	633,149	544,859	676,742	402,080	13,723	6,700,144
1951	3,531,351	3,118,637	854,761	911,036	916,515	721,740	96,720	10,150,769
1952	4,845,271	3,099,502	644,998	1,667,480	2,006,693	599,338	116,735	12,980,017

(a) Excludes Senior Technical Colleges.

The totals for the various States in 1952 include the following amounts expended from loan and other funds; figures for 1951 are shown in brackets—New South Wales, £3,460,888 (£2,502,289); Victoria, £2,900,797 (£2,977,915); Queensland, £461,939 (£693,522); South Australia, £1,413,494 (£772,703); Western Australia, £1,772,072 (£716,858) and Tasmania, £467,482 (£625,888).

(d) *Net Total Cost.* The net total cost of education in Government Schools, including buildings, during the years 1939 and 1948 to 1952 was as follows :—

GOVERNMENT SCHOOLS(a) : NET TOTAL COST.

(£.)

Year.	N.S.W. (b)	Vic. (c)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Total.
1939	5,010,096	2,973,575	1,656,124	939,576	787,494	(c) 380,627	7,341	11,654,833
1948	9,135,115	6,243,616	3,205,609	1,965,272	1,791,106	995,628	27,370	23,364,010
1949	10,703,894	8,318,568	3,828,027	2,308,615	2,255,456	1,216,348	47,844	28,678,762
1950	12,091,007	10,128,636	1,596,855	2,079,866	2,060,408	1,484,848	54,301	35,168,937
1951	16,744,866	12,895,594	4,668,508	3,061,660	1,202,781	2,088,976	153,885	44,724,847
1952	22,689,411	15,030,062	6,275,478	5,435,361	5,904,670	2,515,721	204,911	58,055,620

(a) Excludes Senior Technical Colleges.

(b) Gross figures, receipts not being available.

(c) Excludes Junior Technical Schools.

The figures in this and the preceding tables refer to all grades of Government Schools with the exception of senior technical colleges, and in Victoria and (in 1939) Tasmania, junior technical schools. Including buildings, the net cost per scholar in average attendance for the whole of the schools in Australia amounted in 1951 to £50 16s. 8d., and in 1952 to £59 9s. 7d. as compared with £4 9s. 3d. in 1901.

(e) *School Banking.* Particulars of School Savings Banks are included in Chapter XVI.—Private Finance.

§ 3. Non-Government Schools.

1. *Public Authority and the Non-Government Schools.*—In all States education is compulsory for all children between certain ages. It must be received in a government school, unless the child is under "regular and efficient" instruction elsewhere. This may be at home, or in a non-government school. The provision for control over the regularity and efficiency of instruction in the non-government schools varies considerably from State to State. In Queensland and South Australia it is possible under the present regulations for schools to exist without inspection. In New South Wales and Western Australia provision is made for the initial inspection when a new school starts, and for inspections thereafter as the Minister requires, to ensure efficiency. In Victoria and Tasmania, registers are kept of teachers and schools, and both teachers and schools must satisfy the administering authority that they are efficient before registration is granted. Without such registration, neither a teacher nor a school can operate. Provision is made, too, for inspections at any time by the registering authority.

Public authority over schools or institutions having scholars above the compulsory ages is generally less direct. It is effected directly by the registration procedures in Victoria and Tasmania, and in all States there is a measure of indirect control through provisions governing the awards of State scholarships for secondary education, which can be taken only in government or in approved non-government schools.

The eight State-subsidized grammar schools in Queensland are the only non-government schools of Australia for which an annual inspection is prescribed by statute.

In all States, non-government schools are required, under the authority of either the Education Acts or Statistics Acts, to furnish certain returns. The form of these returns may be prescribed in the Acts or may be subject to alteration by the Minister's consent.

2. Numbers of Non-Government Schools, Teachers and Enrolments, 1952.—The numbers of non-government schools, teachers and enrolments for 1952 are shown in the following table :—

NON-GOVERNMENT SCHOOLS, 1952.

Denomination.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Total.
NUMBER OF SCHOOLS.								
Church of England ..	43	36	16	14	9	5	..	123
Presbyterian ..	13	16	4	2	3	2	..	40
Methodist ..	5	4	(b) 6	3	2	1	..	21
Roman Catholic ..	618	356	231	100	137	40	2	1,484
Other Denominational ..	17	19	7	19	3	4	..	69
Undenominational ..	54	47	10	8	63	7	..	189
Total ..	750	478	274	146	217	59	2	1,926
TEACHERS.								
Church of England ..	724	621	225	168	114	89	..	1,941
Presbyterian ..	260	293	52	61	50	10	..	726
Methodist ..	154	148	(b) 112	71	39	33	..	557
Roman Catholic ..	4,331	1,873	1,440	536	595	211	12	9,018
Other Denominational ..	61	120	29	76	10	45	..	341
Undenominational ..	464	298	99	108	132	30	..	1,131
Total ..	6,014	3,353	1,957	1,020	940	418	12	13,714
ENROLMENTS.								
Church of England ..	9,444	11,916	3,813	3,073	2,006	1,380	..	31,632
Presbyterian ..	3,916	5,667	578	840	1,074	200	..	12,275
Methodist ..	2,319	3,239	(b) 1,657	1,182	832	322	..	9,551
Roman Catholic ..	115,740	73,824	41,200	14,440	17,507	6,285	386	269,382
Other Denominational ..	775	2,353	379	1,284	234	853	..	5,878
Undenominational ..	6,112	6,298	1,864	1,574	2,711	554	..	19,113
Total ..	138,306	103,297	49,491	22,393	24,364	9,594	386	347,831

(a) Includes Australian Capital Territory.

(b) Presbyterian and Methodist Schools' Association.

3. Growth of Non-Government Schools.—The enrolment and average attendance at non-government schools in 1891 and at varying intervals to 1952 were as follows :—

NON-GOVERNMENT SCHOOLS : ENROLMENT AND ATTENDANCE.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891 ..	121,485	90,588	1947 ..	280,543	257,430
1901 ..	148,659	120,742	1948 ..	281,354	251,092
1911 ..	160,794	132,588	1949 ..	293,306	264,164
1921 ..	198,688	164,075	1950 ..	309,673	275,562
1931 ..	221,387	180,665	1951 ..	326,258	293,420
1939 ..	247,482	219,171	1952 ..	347,831	315,796

4. The Organization of Roman Catholic Education.—There is, in each State capital, an official who acts under the Archbishop as a Director of Catholic Education for the area. Each diocese within the area is, however, autonomous and manages its own educational affairs subject to the local episcopal authority. The State Director has, in addition to possible inspectorial functions within his own diocese, the duty of co-ordination of educational matters within his area, and of liaison with other educational authorities, particularly the State Education Department.

The system includes kindergartens, sub-primary, primary, academic secondary, home science, commercial, agricultural and technical schools, juniorates and minor

seminaries, schools for the mentally and physically handicapped, orphanages and a variety of special schools of a charitable nature for under-privileged or socially handicapped children.

With the exception of a small number of permanent lay teachers and a number of visiting teachers—usually specialists in such matters as physical education, sport, speech, etc.—teaching is done by members of religious orders.

5. The Organization of Other Non-Government Education.—(i) *General*. Within each State, although the other non-Government schools may be organized into loose forms of association for purposes such as sports, conferences, uniform conditions, etc., there is no system corresponding in size, detail or organization with the Roman Catholic Schools.

(ii) *Church of England*. In certain schools under direct church control the appointment of a majority of Council members rests with the Synod. More frequently perhaps the appointment of such Council members lies in the hands of the diocese or even the parish. The ecclesiastical head of the area, the archbishop or bishop, is typically *ex-officio* chairman of the school Council. The church may appoint all members or on the other hand it may appoint a majority or only one or two. The other members are secured in many ways; some may be nominated by parents, some by "old boys" some by the "school association," some by co-option by the existing Council. Many combinations of these forms of membership occur.

(iii) *Other Denominations*. In general the pattern is similar to that described above, with appointments usually controlled by the State authority of the Church concerned, either alone or acting in conjunction with the local congregation. In Queensland there are six schools operated under the joint auspices of the Presbyterian and Methodist Churches.

(iv) *Undenominational*. There are three main groups of such schools; firstly, those partly controlled by State action, such as those Grammar schools for which some members of the controlling body are appointed under Act of Parliament; secondly, those operated under the auspices of corporate bodies, usually in the form of limited liability companies which may be affiliated with particular churches; and, thirdly, a number of privately-owned schools, many of which are small and restricted to kindergarten or primary schooling.

§ 4. Pre-school Education.

1. *Types of Pre-school Centres*.—Nursery-kindergartens under trained teachers provide daily sessions for children aged three to six, while play groups or play centres provide shorter periods for smaller groups. Day nurseries or crèches care for the children of mothers in employment and Lady Gowrie Child Centres are special centres set up in each State capital city by the Commonwealth Government to demonstrate a child development programme. There are also some private and denominational nursery schools which vary considerably in standard.

Free kindergartens were originally established and financed mainly in congested industrial areas, by voluntary effort, but over the years State Governments and some municipal councils have provided an increasing amount of financial assistance.

2. *The Training of Teachers*.—Since the development of this work depends on the availability of trained teachers, nearly all Kindergarten Unions now have teacher training colleges providing three-year courses. The minimum entrance age is seventeen, and the Leaving Certificate is usually required before admission.

The New South Wales Department of Education gives a two-years' course at the Teachers' College, covering such subjects as biology, physiology, child development, psychology, mental hygiene, child welfare, home science, English, world history, current affairs, sociology, art, crafts, physical education, music and early child development (which embraces principles and methods, play activities, children's literature, music for children, art and other creative experiences, and curriculum planning). A considerable amount of time is also spent in all colleges in practice teaching.

Financial help, such as free training, bursaries provided by the Government or voluntary bodies and living allowances, is provided for teachers, but there is a considerable shortage of trained pre-school teachers.

The six Kindergarten Unions in 1938 united to form the "Australian Association for Pre-School Child Development", a federal body whose aim is to promote the continuous advancement of the pre-school movement throughout Australia.

3. **Kindergarten of the Air.**—Daily kindergarten sessions of half an hour are now broadcast in all States by the Australian Broadcasting Commission in collaboration with Kindergarten Unions.

4. **Kindergarten Unions.**—The following information regarding kindergarten unions has been compiled from particulars supplied by the principals of the chief institutions or the organizing secretary in each State, except in the case of Western Australia where the details were furnished by the Education Department. It refers to kindergarten unions or associations, and excludes the kindergarten branches in the Government schools of the various States.

KINDERGARTEN UNIONS, 1953.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales ..	36	1,479	105	21	..
Victoria	47	970	91	..	..
Queensland	4	158	11	..	..
South Australia(a) ..	79	2,637	195	..	7
Western Australia ..	37	1,013	45	..	..
Tasmania	5	152	9	..	4
Total	208	6,409	450	21	11

(a) Includes affiliated suburban and country centres.

In 1953 only 27 of these 208 kindergartens were located outside metropolitan areas mainly in the larger provincial cities. In each capital city except Hobart there is a training college and the number of students in training during 1953 was 104 in Sydney, 132 in Melbourne, 24 in Brisbane, 36 in Adelaide, and 20 in Perth.

§ 5. Technical Education.

1. **General.**—In this section technical education refers to that branch of education which is concerned with the preparation for entry to skilled occupations, including trades and professions. In the main this education is vocational and is chiefly part-time, being carried out by the student while he is engaged in his occupation. The work of technical high schools, junior technical schools and other schools of this nature which provide courses with a bias towards technical handwork has been excluded, as they provide a form of education which is more properly regarded as secondary education.

The chief institutions for vocational training other than the universities are the senior technical colleges. These offer training not only in industrial skills, but also in commercial, agricultural and pastoral occupations, the plastic arts and homecrafts. There are, in addition, agricultural colleges and a substantial number of private business colleges.

Although, as in other branches of education, the main lines of technical education had been determined by 1929, expansion and development since then has, perhaps, been greater in this field than in any other. The following table gives some indication of the growth of technical education in the years 1939 to 1952.

TECHNICAL EDUCATION: AUSTRALIA.

Year.	No. of Colleges.	No. of Students.	No. of Teachers.(a)	Total Expenditure.
				£
1939	94	89,215	3,276	1,359,800
1945	114	110,841	5,175	1,849,051
1947	119	144,882	6,239	2,685,896
1948	126	150,482	6,819	3,235,129
1949	131	153,547	6,530	4,081,331
1950	141	161,564	6,409	5,096,563
1951	146	158,179	6,179	5,930,370
1952	141	169,089	6,344	7,145,402

(a) Includes both full-time and part-time teachers.

Technical education is the field most sensitive to changing material needs and has expanded to meet the requirements of new industries and techniques. The desire for the comparative economic security of skilled jobs during the period of economic depression and the increasing demand for skilled workers due to the development of more advanced techniques in industry stimulated public interest in all States.

A characteristic feature of technical education since 1929 has been the close co-operation between the Commonwealth and the States. This is understandable as the technical colleges were able to play an important part in meeting two crises with Australia-wide implications. During the years of the economic depression in the 1930's States sought means to provide technical training for the young unemployed and this led, in 1936, to the Youth Employment Scheme, in which the States and the Commonwealth participated. During the 1939-45 War the Commonwealth and the States worked together in the Commonwealth Technical Training Scheme to meet the war-time need for technicians; after the war this type of training was continued in the technical colleges in the States as a part of the Commonwealth Reconstruction Training Scheme. In addition, during the period 1940 to 1944 technical correspondence schools were founded in each State in conjunction with the Commonwealth and these have become an important part of the system of technical education in the Australian States.

The expansion of technical education in the last two decades has paralleled the growth of secondary production from predominantly scattered small-scale and light industry to more concentrated large-scale heavy industry utilizing advanced techniques. Technical colleges have always been linked with the industries from which they draw staff and students, but whereas formerly they produced skilled craftsmen they now also accept the responsibility of turning out persons capable of adapting themselves to swift technological changes and able to assume responsibilities of management and leadership. Furthermore, rapid changes in industrial methods call for a close connexion between college curricula and workshop practice in order that they may keep in step and so that applied research can make available to industry the results of pure research. The introduction of day training classes for apprentices is an indication of the development of this relationship between technical education and industry.

The history of the development of technical education since 1929 is one of increasing government support and control, increasing financial commitments by both State and Commonwealth Governments as well as considerable financial support and greater participation by industrial undertakings in the work of the colleges, increasing enrolments and facilities and the development of curricula and courses to meet new needs, and the growing realization of the need to recruit and train teaching staff in a systematic way.

2. Teacher Training.—Another important feature of technical education since 1929 relates to the training of teachers. Technical colleges at that time were staffed chiefly by men (and a few women) drawn from two sources. They were either trained teachers in the employment of the Education Department or technicians drawn from industry. Although some of the latter were highly qualified, the great majority had not been trained as teachers. In order to remedy this, there has been a move to develop schemes of training technical college teachers without breaking the important link provided by recruiting specialist tradesmen to teach in the colleges. For example, since the 1939-45 War, New South Wales has extended a system whereby tradesmen-instructors receive a course of teacher training in both general educational theory and teaching method. After appointment a teacher in a large centre attends classes for six hours each week during his first year of service and two hours weekly thereafter until he has completed the training course. Correspondence courses and itinerant teachers care for the newly appointed teacher-instructor in country colleges. Modifications of this aspect are in operation in other States. Many technical teachers, principally of academic, commercial and domestic science subjects, hold trained teachers' certificates from teachers' colleges.

8. Colleges, Teachers and Students.—The numbers of colleges, teachers and enrolments of individual students during the years 1939 and 1949 to 1952 are given in the following table :—

TECHNICAL EDUCATION : COLLEGES, TEACHERS AND ENROLMENTS.

State.	Colleges.	Teachers.			Individual Students Enrolled.		
		Full-time.	Part-time.	Persons.	Males.	Females.	Persons.
New South Wales—							
1939	24	894	301	1,195	27,403	9,861	37,264
1949	38	1,010	1,735	2,765	48,569	16,333	64,902
1950	42	1,038	1,321	2,358	(a)48,310	(a)20,775	69,085
1951	44	935	947	1,882	(a)43,513	(a)20,652	63,165
1952	40	984	1,032	2,016	(a)44,161	(a)22,820	66,981
Victoria—							
1939	30	817	456	1,273	21,158	7,686	28,844
1949	35	1,161	1,054	2,215	30,898	10,597	41,495
1950	36	1,238	1,030	2,268	30,879	11,152	42,031
1951	36	1,280	1,071	2,351	29,220	12,217	41,436
1952	36	1,338	1,090	2,428	32,517	13,993	46,510
Queensland—							
1939	13	94	108	202	5,125	1,272	6,397
1949	12	111	264	375	10,746	3,911	14,657
1950	12	135	346	481	12,350	4,551	16,901
1951	12	135	346	481	12,654	5,425	18,079
1952	12	137	354	491	13,849	5,953	19,802
South Australia—							
1939	17	104	212	316	6,390	3,331	9,721
1949	25	167	460	627	9,700	7,531	17,231
1950	27	173	447	620	10,270	6,829	17,099
1951	28	195	482	677	10,512	6,893	17,405
1952	27	203	498	701	11,033	7,195	18,228
Western Australia—							
1939	5	36	119	155	3,843	1,830	5,673
1949	12	117	222	339	7,695	2,718	10,413
1950	15	131	264	395	7,424	3,925	11,349
1951	17	145	325	470	8,101	4,703	12,804
1952	17	159	321	480	7,995	5,284	13,279
Tasmania—							
1939	5	41	94	135	936	380	1,316
1949	9	35	174	209	2,777	2,072	4,849
1950	9	25	262	287	2,966	2,139	5,099
1951	9	34	284	318	3,356	1,924	5,280
1952	9	37	191	228	2,383	1,906	4,289
Total—							
1939	94	1,986	1,290	3,276	64,855	24,360	89,215
1949	131	2,601	3,929	6,530	110,385	43,162	153,547
1950	141	2,740	3,669	6,409	112,193	49,371	161,564
1951	146	2,724	3,455	6,179	106,365	51,814	158,179
1952	141	2,858	3,486	6,344	111,938	57,151	169,089

(a) Partly estimated.

4. Expenditure.—The expenditure on technical education in each State for 1952 is shown below :—

TECHNICAL EDUCATION : EXPENDITURE. 1952.

(Including Loan Fund Expenditure.)

(£.)

State.	Salaries and Maintenance.	Equipment.	Buildings.	Total Expenditure.	Receipts—Fees, etc.	Net Expenditure.
New South Wales ..	1,871,558	207,925	554,098	2,635,516	408,000	2,227,516
Victoria a) ..	2,093,113	59,946	352,820	2,657,407	304,794	..
Queensland ..	333,239	133,409	108,306	573,954	39,273	534,681
South Australia ..	443,079	(b)	138,601	582,202	60,004	522,198
Western Australia ..	453,198	..	28,429	545,821	19,938	525,883
Tasmania ..	93,122	10,131	32,489	150,502	1,159	149,343
Total ..	5,285,300	411,411	1,211,743	7,145,402	833,168	..

(a) Includes expenditure on Junior Technical Schools.

(b) Included with salaries and maintenance.

Fees and other receipts are paid into Consolidated Revenue in all States except Victoria, where they are retained and spent by the Technical School Councils. The expenditure on buildings is largely financed from loan moneys, the sums provided from this source in 1952 being :—New South Wales, £466,826 ; Victoria, £303,171 ; Queensland, £98,582 ; South Australia, £119,950 ; Western Australia, £15,766 ; and Tasmania, £28,498.

The net expenditure on maintenance (including salaries) for technical education in Australia in 1952 amounted to 12s. 6d. per head of the mean population, as compared with £5 3s. 7d. per head expended on the net maintenance (including salaries) for primary and secondary education.

§ 6. Commonwealth Activities.

Although the primary responsibility for education rests with the Australian States, the Commonwealth Government is committed to a number of educational activities related to its other functions. For example, it maintains officer training colleges and education services for each of its Defence Services, a School of Pacific Administration for training administrators for Papua-New Guinea and a School of Forestry. In each of the Australian Territories there is an education programme which provides for both the native and white children who live there. References to education in the Territories appear in Chapter V.—The Territories of Australia.

The Commonwealth Office of Education, established in 1945, acts as the Commonwealth's educational adviser, undertakes research work as Commonwealth activities require, and is the channel for liaison between Commonwealth and State educational authorities. This Office has responsibilities with regard to the education of migrants, the education of natives in the Northern Territory, the provision of scholarships at the tertiary level under the Commonwealth Scholarship Scheme and the Reconstruction Training Scheme, international relations including the association of Australia with the aims and activities of the United Nations Educational, Scientific and Cultural Organization and the provision of scholarships and fellowships for selected students under the Commonwealth Technical Co-operation Scheme, the UNESCO Fellowship Scheme and the South-East Asian Scholarship Scheme.

The Australian Broadcasting Commission features school broadcasts and other educational broadcasts as part of its daily programmes. The Commonwealth Scientific and Industrial Research Organization undertakes research, the results of which are made available to educational institutions. In 1951 the Commonwealth Government introduced a free-milk scheme for school children. This extends a service which some State authorities were already providing for a proportion of the school population. Under the Commonwealth Reconstruction Training Scheme many ex-servicemen and women have received the training which has enabled them to enter many different trades and professions.

The Commonwealth also assists a number of other bodies concerned with education. Besides grants to organizations such as the Australian Council for Educational Research and the National Fitness Council, Australian Universities have received grants for specific purposes through the Universities Commission.

§ 7. Australia and International Relations in Education.

Despite its isolation, Australia has always been responsive to educational developments in overseas countries, particularly those in the United Kingdom, but it is only recently that it has begun to make any considerable impact on educational thought overseas.

In this connexion there have been important developments since the 1939–45 War. For instance there has been a remarkable increase in the volume of information on educational matters exchanged between Australia and South-East Asia, and Australia has participated in the Commonwealth Technical Co-operation Scheme and the United Nations Technical Assistance programme.

Perhaps the most important single factor behind the quickening of Australian interest in international cultural affairs has been membership of the United Nations Educational, Scientific, and Cultural Organization. Australia has been a member since 1946. Some eleven expert Committees in Australia are responsible for a wide and varied programme of activities on behalf of UNESCO. Their advice has helped to make Australia's contribution to UNESCO International Conferences and Seminars highly effective. Other work undertaken by these Committees has included the supervision of studies relating to community attitudes towards international affairs, and to the assimilation of migrants, the conducting of seminars in Australia, arranging for exhibitions and displays in Australia, and the publication of handbooks and brochures to assist teachers and other persons in meeting the problems involved in educating for international understanding.

The Australian National Advisory Committee for UNESCO, on which all the other Committees are represented, advises the Commonwealth Government and co-ordinates the work of the specialist Committees.

§ 8. Universities.

1. **General.**—The last quarter of a century has seen a marked increase in the number of students and staff, the establishment of three new Universities and two new University Colleges, and the provision in the older Universities of additional courses. In spite of difficulties due, in some measure, to the economic depression of the 1930's and a World War, the period since 1929 has been one of significant development.

2. **University Expansion.**—(i) *The Establishment of New Universities.* The three new Universities represent new departures in the Australian University tradition.

(a) *The Australian National University.* By the Australian National University Act 1946, provision was made for the establishment of a University in the Australian Capital Territory. The University is required by the Act to provide facilities for post-graduate research including:—The School of Medical Research to be known as "The John Curtin School of Medical Research"; The Research School of Physical Sciences; The Research School of Social Sciences; and The Research School of Pacific Studies.

The Act also provides for the incorporation of the Canberra University College. In the first instance the Council has decided to concentrate on the establishment of the four Research Schools mentioned in the Act.

The government of the University is vested in a Council consisting of two representatives each of the Senate and the House of Representatives, up to eight nominated by the Governor-General, up to nine elected by Convocation, two elected by the students, and three elected by the academic staff; up to three members may be co-opted and the Vice-Chancellor is an *ex officio* member.

The senior academic body in the University is the Board of Graduate Studies of which all professors are members. The Board deals with questions affecting education, learning and research in the University.

The Act provides for a statutory grant of £325,000 per annum and in addition a supplementary grant is made to meet the running costs. A separate vote is made for capital works.

An area of 204 acres at Acton has been vested in the University. University House, a residential College for single members of the staff and the student body, was opened in February, 1954. University House also acts as the social centre for the whole University community.

The laboratories and office block for the Research School of Physical Sciences have been completed. The John Curtin School of Medical Research (with the exception of the Department of Medical Chemistry which is at present located in the Wellcome Foundation, London) is housed in temporary laboratories on the University site. The construction of the permanent building has been commenced and it is expected that it will be completed in 1956. The Research Schools of Social Sciences and Pacific Studies and the Library are housed in existing buildings on the site.

Seventeen professors and sixty-nine other members of the academic staff have been appointed.

Each department of the Research Schools accepts a small number of graduate students. Each student is assigned to a Supervisor and pursues a course of research. Subject to certain conditions, the following degrees may be awarded by the University:—Master of Arts (M.A.); Master of Science (M.Sc.); Doctor of Philosophy (Ph.D.); Doctor of Letters (Lit.D.); Doctor of Science (D.Sc.); and Doctor of Laws (LL.D.). The Right Honourable Viscount Bruce of Melbourne is Chancellor of the University and Mr. L. G. Melville is the Vice-Chancellor. Mr. R. A. Hohnen is the Registrar.

Each of the Research Schools will eventually be headed by a Director. Professor M. L. Oliphant, F.R.S., is Director of the Research School of Physical Sciences. But until further appointments can be made the following Deans have been appointed to act: Professor A. H. Ennor, Dean of the School of Medical Research; Professor S. F. Nadel, Dean of the School of Pacific Studies, and Professor G. Sawyer, Dean of the Research School of Social Sciences. In 1954 sixty-four students were enrolled in the University.

Finance for the year 1953 was as follows:—Income for General Activities—Commonwealth Government Grants Revenue £625,000, Capital £1,002,000, Student's fees £625, Interest, Donations, etc. £18,743, Halls of Residence £15,474, Total £1,661,842. Income for Special Purposes—Interest, etc. £1,040, Research Grants £6,350, other income £1,207, Total £8,597. Expenditure on General Activities—Administration £71,035, Teaching and Research £571,659, Library £44,584, Premises and Grounds £44,871, Buildings £398,663, Halls of Residence £344,100, other expenditure £54,123, Total £1,529,435 including Capital £964,013. Expenditure for Special Purposes £1,164.

(b) *New South Wales University of Technology.* Officially incorporated by the Technical Education and the New South Wales University of Technology Act of the New South Wales Parliament in April, 1949, the New South Wales University of Technology was established to provide facilities for training and research in the fields of Applied Science and Technology and to ensure a more adequate supply of highly skilled scientists and technologists to the expanding industries of Australia.

The University is governed by a Council consisting of not more than 30 members representing Parliament, industry, commerce, the trade unions, technical education, professional bodies, the University of Sydney and the teaching staffs and the graduate and under-graduate members of the University of Technology. The President of the Council is Mr. Wallace C. Wurth, C.M.G., LL.B., Chairman of the New South Wales Public Service Board.

The Director of the University, who is also a member of the Council, is Professor J. P. Baxter, O.B.E., B.Sc., Ph.D., A.M.I. Chem. E., F.R.A.C.I., M.I.E. Aust.

The Council may provide courses in applied science, engineering technology, commerce, industrial organization, and such related courses as it deems fit, and may after examination confer the several degrees of Bachelor, Master and Doctor, and such other degrees and such certificates in the nature of degrees or otherwise as it thinks fit.

The Council is empowered to establish and maintain branches, departments, or colleges of the University, at Newcastle, Wollongong, Broken Hill or such other places in the State of New South Wales as it may approve. Under this authority, a college of the University was established at Newcastle in December, 1951.

Under the guidance of a Developmental Council established on 8th July, 1947, the first courses leading to the degree of Bachelor of Engineering were instituted in 1948 in Civil, Electrical, Mechanical and Mining Engineering. Courses leading to the degree of Bachelor of Science were introduced in Applied Chemistry and Chemical Engineering in 1949, and in Applied Physics and Wool Technology in 1951. The first degree course

in Architecture was established in 1950. In 1954, first degree courses in Food Technology, Metallurgy, and Applied Geology were established, and part-time degree courses in Applied Psychology will be offered in 1955. During 1954, part-time degree courses were introduced in Applied Biology, Applied Chemistry, Applied Geology, Chemical Engineering, Civil Engineering, Electrical Engineering, Food Technology, General Science, Industrial Chemistry, Leather Chemistry, Mechanical Engineering and Metallurgy.

Two features are emphasized in the planning of first degree courses of the University of Technology, namely, the inclusion of industrial experience as an essential part of the courses to supplement the laboratory and lecture-room work at the University, and the study, in all faculties, of Humanities and Social Science subjects.

By mutual agreement of the Council of the University and of the New South Wales Department of Technical Education the following diploma courses, formerly provided by the Department of Technical Education and requiring matriculation standard for admission, are now administered by the University of Technology: Aeronautical Engineering, Applied Biology, Architecture, Building, Chemical Engineering, Chemistry, Civil Engineering, Electrical Engineering, Food Technology, Leather Chemistry, Mechanical Engineering, Metallurgy, Mining Engineering, Naval Architecture, Optometry, Physics, Production Engineering, Quantity Surveying, Radio Engineering, Science and Secondary Metallurgy.

In general, the full-time courses for the degree of Bachelor extend over four years. In some courses (e.g. Chemical Engineering) the Honours course requires a further year. The degree course in Architecture, Pass or Honours, is of six years' duration. Part-time degree courses extend over six or seven years with an additional year for Honours. The diploma courses generally are of five stages of one year each.

Special investigations may be carried out on any problem of technology or applied science on request, and in respect of any special investigation the Council may charge an appropriate fee.

Arts Courses.—In conjunction with the establishment of the University of New England in February, 1954, as an autonomous body with authority to confer degrees, arrangements were made to provide Arts courses at Newcastle University College in co-operation with the University of New England. Under these arrangements, the syllabuses of study are prescribed by the University of New England which is also the examining body and instruction is provided by members of the School of Humanities and Social Sciences of the University of Technology.

Staff.—The academic appointments are as follow:—*Faculty of Applied Science*—Seven professors, four associate professors, 31 senior lecturers, 69 lecturers. *Faculty of Engineering*—four professors, one associate professor, 23 senior lecturers and 75 lecturers. *Faculty of Architecture*—one professor, one associate professor, two senior lecturers and eleven lecturers. *Faculty of Humanities and Social Sciences*—one professor, two associate professors, seven senior lecturers and eleven lecturers.

Library.—The number of volumes in the library in 1953 was 45,488 (this figure includes the collection at the University Library at Kensington, and all joint libraries of the University and the Department of Technical Education).

Buildings and Sites.—Pending completion of its new buildings, the University has had at its disposal the facilities of the New South Wales Department of Technical Education. The erection of the first major University building is nearing completion on a site of 71 acres at Kensington, near Sydney. Portion of the building has been occupied by the School of Architecture and Building since the beginning of 1954, and the Schools of Humanities and Social Sciences, Applied Physics and Mining Engineering and Geology and the University Administration will be transferred to the building early in 1955. The Schools of Metallurgy and Chemical Engineering occupy eleven light frame buildings on the Kensington site.

Student Hostel.—The University conducts a student hostel at the University site at Kensington, where single room accommodation is available for approximately 200 students.

(c) *University of New England.* The New England University College was established as a branch of the University of Sydney on 1st January, 1938 by the Senate of the University of Sydney. It was established in accordance with the expressed wish of the people of northern New South Wales and for the purpose of providing education at university level for country students particularly. New England thus became the first experiment in university decentralization in Australia.

The original gift to the University of Sydney in 1937 by the late T. R. Forster of "Abington", comprised the old homestead of "Boooloominah", together with several other buildings and 183 acres of land. The New South Wales Government bore the cost of converting the property to its present use and of providing additional buildings. The Commonwealth Government made funds available under the Commonwealth Reconstruction Training Scheme for the erection of another large building to provide additional lecture rooms, laboratories and staff studies.

By virtue of the University of New England Act 1953, the New England University College was incorporated as the University of New England. It came into legal existence as an independent University on 1st February, 1954, and, in addition to fulfilling its previous functions, is now entitled to examine its own students and grant degrees and diplomas. The University is authorized by the Act to co-operate with the New South Wales University of Technology in the provision of degree courses at the Newcastle University College.

There are at present two faculties in the University of New England—The faculty of Arts, which was established in 1938, and the Faculty of Science, established in 1939. A Professor of Rural Science has recently been appointed, and a degree course in Rural Science will be offered in 1957 or 1958.

The University will offer in 1955 correspondence courses to external students in an adequate range of subjects leading to the degree of Bachelor of Arts.

(ii) *Canberra University College.* Particulars are given in Official Year Book No. 39, pp. 227-8, concerning the Canberra University College, which was created in 1930 mainly to establish courses of lectures for degrees in co-operation with the University of Melbourne.

(iii) *Expansion within the Universities.* An important administrative development which occurred in all Universities during the period under review was the appointment of full-time salaried Vice-Chancellors or Principals, a move which gave much greater effectiveness to University administration.

Within the past twenty years the appearance of some of the Universities has altered to a striking extent. New permanent buildings and some temporary ones have been erected and new wings have been added. An impressive expansion has been that taking place in Queensland where, since 1937, building has been proceeding upon a new site at St. Lucia, and, beginning with the transfer of some of the Engineering School in 1947, the University is being gradually moved into its new quarters.

This very considerable building activity has been made necessary primarily by the vast expansion in student numbers from 9,000 in 1929 to 28,792 in 1953. There was a continued increase in University enrolments from 1929 to 1940 followed by a slight recession. In the closing year of the war, however, the number of students had risen beyond any previous figure, and rapid post-war expansion was responsible for a peak enrolment of 32,453 students in 1948. After 1948 the numbers decreased each year as ex-service personnel completed their training under the Commonwealth Reconstruction Training Scheme, but it is anticipated that by 1960 some 40,000 students will be enrolled in Australian Universities.

3. *Courses.*—The post-war period has seen a noticeable expansion in the ranges of courses offered, particularly in the younger and smaller Universities. New faculties of Education were established in Western Australia and Queensland. Two new faculties of Dentistry, two of Commerce (Economics), three of Architecture and one each of Medicine, Law, Veterinary Science, Applied Science, and Engineering also came into being.

Within existing faculties, many new departments were set up. In Engineering, specialist departments of Chemical and Aeronautical Engineering, Civil, Electrical, Mechanical, Mining and Metallurgical Engineering and Surveying have been instituted.

In Medicine the most notable development has been the establishment of specialist courses leading to graduate diplomas in Radiology, Anaesthesia, Clinical Pathology, Ophthalmology, Laryngology, Gynaecology, Tropical Medicine, Dermatology and Psychological Medicine at Melbourne and Sydney.

In Science the smaller Universities followed the development of Melbourne and Sydney by breaking up departments such as Biology into Zoology and Botany, etc., and adding new departments such as Bacteriology and Biochemistry. Melbourne and Sydney also introduced some new courses and a new degree in Forestry was introduced in each University.

In Arts the same processes can be observed. New departments in Semitic Studies, Fine Arts, Music and Statistics were opened in various universities, and other departments were divided or sub-divided. The most prominent addition was the rapid development of Psychology departments which, in the post-war period, expanded into one of the biggest of the Arts departments.

In the smaller faculties, similar innovations and expansions, reflecting an increasing demand for specialized study, have taken place. Examples are the development of departments of Physical Education, Social Studies, Town and Country Planning and Criminology.

In addition, however, there were several attempts to provide integrated general education courses within the faculties of Arts and Science.

4. **Research.**—Australian Universities have long been criticized for their lack of provision for graduate students, but in recent years a notable feature of student enrolments has been the steady increase in the number of higher degree students. Factors contributing to the extension of research and the training of graduate students have been :—

- (a) The Commonwealth Government grant begun in 1936 for the prosecution of research and the training of research workers in Universities ;
- (b) the enlistment of university staffs on extensive research projects in connexion with the 1939-45 war ;
- (c) the establishment of research schools like the Departments of Experimental Medicine and Metallurgical Research in Melbourne and the Australian National University in Canberra ;
- (d) the institution of the Ph.D. degree requiring two years of full-time graduate research ; and
- (e) the development of four-year honour courses for the degrees of B.A. and B.Sc.

5. **Services.**—(i) *General.* The traditional division of the function of Universities into teaching and research seems no longer applicable. A third function has been added in recent times, that of community service. The University has long been responsible for providing an important service to the community in the form of professional training in many fields and in a number of other intangible ways, but of recent years there has been a noticeable increase in the performance by university departments of direct and deliberate services to the community. This was most apparent in time of war when the Universities whole-heartedly accepted the role given them by the Minister for War Organization of Industry when he said in 1942 to a meeting of the Vice-Chancellors, "the Government requires of the Universities specific services, falling under two heads : (i) investigations and research into particular problems relating to the war effort ; (ii) the training of personnel with special qualifications for the armed services, war production and other essential needs". The trend, however, was noticeable before the 1939-45 War and is still continuing. These services, which are of three main kinds, are dealt with hereunder.

(ii) *Service Research.* This is a form of applied research in which a University department applies itself to the solution of a problem of immediate practical importance to the community. The development of producer-gas units for use on motor vehicles during the 1939-45 War, research on poliomyelitis, tropical food plants, bovine mastitis, and mosquito control are examples of work of this type recently undertaken in various University departments.

(iii) *Applied Research.* Closely associated with the kind of research just mentioned are the projects which are requested of the University by outside bodies and are usually in the field of applied research. Services of this kind are most frequently rendered by the engineering faculty. Testing work for government departments and private industry is carried out in almost every engineering department. In Melbourne, since 1934, 400 reports on problems associated with ores and concentrates submitted from all over Australia have been issued by the Department of Mining. Research on servomechanisms for the Department of Supply, aerials for the R.A.A.F., the stability of power systems for the Electrical Research Board and studies on the site, materials and design for the Warra-gamba Dam are some of other tasks that have been undertaken. Services of this kind however, are by no means confined to the technological field. They have been rendered by almost all University departments and not least by workers in the Social Sciences who have been called upon to investigate matters such as colour-vision tests for the Civil Aviation Department, the teaching of English to foreign-born immigrants and anthropological problems encountered in the administration of New Guinea.

(iv) *Advisory Services.* Consultant and advisory services have come to occupy much of the time of the staff of many departments. There has been a long tradition of service in this field by members of the Departments of Agriculture and Medicine, and almost equally prominent have been the economists whose services were sought by governments and businesses in the depression period of the 1930's. The 1939-45 War saw an increase in demand for expert advice from University faculties and the seconding of personnel to government departments in considerable numbers. In the post-war period much of this demand has continued. Problems of land utilization have called for advice from agriculturalists, geographers and economists. Personnel and training problems in industry have required the services of psychologists and educationists. School broadcasts have been scripted by scientists, and lecturers in English history, modern languages and political science. University physicists, chemists and medical staff have played an important role in recent defence programmes. Developmental schemes have looked for advice to engineers, geologists and architects.

6. *The Commonwealth and the Universities.*—(i) *General.* Commonwealth financial support for university activities may be regarded as developing in three phases. Firstly, in the period up to 1939, Commonwealth interest in research projects carried out by or in collaboration with the Universities led to the granting of increasing sums for this purpose. Secondly, during and after the 1939-45 War the Commonwealth extended assistance to University students, at first with the object of increasing the number of highly qualified people available for the war effort, then with the object of rehabilitating ex-servicemen, and finally as a social service of benefit to the community. Thirdly, since 1951, the Commonwealth has made special grants to the States for university purposes.

(ii) *Grants for Research.* The Commonwealth had given some support to research prior to 1926, chiefly through the Institute of Science and Industry, but the amount spent did not exceed £25,000 per annum. In 1926 the Institute was replaced by the Council for Scientific and Industrial Research (known since 1949 as the Commonwealth Scientific and Industrial Research Organization) with an annual appropriation of £250,000. It has ever since worked in close association with the Universities. Both kinds of research, fundamental and applied, have at times occupied the attention of both the Universities and the Commonwealth Scientific and Industrial Research Organization, but in general, the preliminary training of graduates in research work has been left to the Universities.

In 1936 the Commonwealth Government made a grant of £30,000 per annum for five years to Australian Universities for research in physical and biological sciences. This figure rose over the years to £100,000 in 1950 and was subsequently absorbed in the larger general grant which was then made available by the Commonwealth to the States for Universities. These research grants together with other Commonwealth payments for research purposes, totalled more than £3½ million in 1950-51, compared with less than £½ million in 1939-40.

(iii) *Assistance to Students.* The Commonwealth Government in 1942 set up the Universities Commission to ensure that the flow of trained professional personnel from the Universities would be sufficient to meet the needs of the nation during the war and post-war periods. Selected University students were reserved from war service and were eligible for supplementary assistance of £104 per annum if living at home and £143 if living away from home.

Financial assistance to students was continued for five years after the end of the 1939-45 War with some increases in living allowances and in 1951 the Commonwealth Scholarship Scheme was planned by the Universities Commission.

Under this Scheme 3,000 scholarships are allocated annually to the States on a population basis, 2 per cent. of them being reserved for students over the age of 25 years. Awards are made on merit to students completing secondary courses and no regard is paid to the income of the students or their parents. Scholarship holders have their fares paid and, subject to a means test, are eligible for a maximum allowance of £169 per annum (£240 10s. for a student living away from home) and married scholars receive additional family allowances. At 30th June, 1954, there were 7,917 scholars in training at Universities and 1,298 at other Institutions.

In addition to the above eligible ex-service personnel received training at Universities and similar institutions at Commonwealth expense under the Reconstruction Training Scheme. A general description of the Scheme is to be found on page 240 of Official Year Book No. 39. The Commonwealth Government made available to the training institutions approximately £1 million for buildings and £½ million for equipment and also paid all tuition fees and subsidies designed to meet the cost to the Universities of the Reconstruction Trainees.

At the 30th June, 1954, 25,205 full-time and 19,519 part-time students had been selected for training under this scheme and more than 21,000 had successfully completed their courses.

(iv) *Commonwealth Grants to the States for University Purposes.* Following a report submitted by a committee of inquiry appointed to report on University finances and requirements the Commonwealth passed the States Grants (Universities) Act in 1951 to enable grants to be made to the States for their Universities.

The following grants were payable to the States for University purposes and for current expenditure only: (a) A special grant covering the six months' period ending 31st December, 1950 (payable to all States participating in the scheme); (b) A basic grant in each of the years 1951, 1952 and 1953 payable on condition that, for the University concerned, the total of State grants and fees received by the University in the year in question was at least equal to a stipulated "qualifying amount"; (c) An additional grant up to a stated maximum in each of the years 1951, 1952 and 1953 payable at the rate of £1 for every £3 by which, for the University concerned, the total of State grants and fees received by the University in that year exceeded the "qualifying amount".

In each of the years 1951, 1952 and 1953 a further grant was also payable to the States to be applied towards the teaching and administrative costs of residential colleges, provided that the University concerned qualified for the basic grant referred to in (b) above.

The States Grants (Universities) Act No. 75 of 1953 (assented to 10th December, 1953) repealed the 1951 Act, and shall be deemed to have come into operation on 1st January, 1953. The main provisions are summarized as follows:—

Section 5 (1).—If the sum of the fees and State grants received by a University during either of the years 1953 and 1954 exceeds the amount specified in column 2 of the table below, the grant to the State for that year is—

(a) an amount equal to one-third of the excess; and (b) the amount shown in column 3 of the table.

Section 5 (2).—The maximum amount payable under Section 5 (1.) (a) above is shown in column 4.

Section 6.—The State will, in the year in which payment is received, pay to the University concerned an amount equal to the grants received and must ensure that—

(a) the grant under Section 5 (1.) (a) is applied for expenditure, not being capital expenditure, on university purposes; and (b) of the grant under Section 5 (1.) (b), the amount shown in column 5 is applied towards the teaching and administrative costs of the residential colleges of the University and the remainder for expenditure, not being capital expenditure, on university purposes.

Section 9.—The provisions of the 1951 Act shall be deemed to have operated in respect of the year 1952 as if the amounts set out in relation to the New South Wales University of Technology had been the following:—£7,280; £81,885; £605,805; £30,826; £2,356.

COMMONWEALTH GRANTS TO THE STATES FOR UNIVERSITY PURPOSES.

(£.)

University.	Amount of Fees and State Grants.	Amount of Financial Assistance under Section 5. (1.) (b).	Maximum Amount Payable under Section 5. (1.) (a).	Amount for Teaching and Administrative costs of Residential Colleges.
(1)	(2)	(3)	(4)	(5)
New South Wales—				
University of Sydney	783,369	270,023	202,140	8,900
N.S.W. University of Technology ..	605,805	81,885	61,652	2,356
New England University College ..	64,164	13,099	9,960	220
Victoria—University of Melbourne ..	655,159	220,414	165,000	7,265
Queensland—University of Queensland	309,269	93,226	69,780	3,073
South Australia—University of Adelaide	272,394	93,893	70,320	3,095
Western Australia—University of Western Australia	183,531	62,845	47,400	1,668
Tasmania—University of Tasmania ..	106,319	33,127	22,920	505
Total	2,980,010	868,512	649,172	27,082

7. Teaching and Research Staff.—The following table shows the number of professors, readers, associate and assistant professors, lecturers in charge, lecturers including senior lecturers and assistant lecturers (full-time and part-time), demonstrators (full-time) and tutors (full-time and part-time), and honorary lecturers and demonstrators, on the teaching and research staffs of the Universities and University Colleges during the year 1953.

UNIVERSITIES : TEACHING AND RESEARCH STAFF, 1953.

University or College.	Pro- fessors.	Readers, Associate Pro- fessors, Assistant Pro- fessors, Lec- turers in Charge.	Lecturers.(a)		Demonstrators and Tutors.(b)		Honorary Lec- turers and Demon- strators.	Total.
			Full- time.	Part- time.	Full- time.	Part- time.(b)		
Sydney	52	23	293	244	90	105	57	864
Melbourne	42	32	220	114	99	84	2	593
Queensland (Brisbane) ..	29	21	143	165	36	27	(c) 24	445
Adelaide	28	27	95	64	11	41	..	266
Western Australia (Perth)	16	16	63	37	20	..	..	152
Tasmania (Hobart) ..	15	4	45	14	8	..	..	86
N.S.W. University of Tech- nology (Sydney) ..	10	6	216	333	11	..	..	576
New England University College (Armidale, N.S.W.) .. ..	..	16	28	4	2	1	14	65
Canberra University Col- lege	6	..	18	15	..	5	..	44
Total	193	145	1,121	990	277	263	97	3,091

(a) Includes Senior Lecturers and Assistant Lecturers.
(c) Department of External Studies.

(b) Excludes Part-time Demonstrators

The Conservatorium of Music in Sydney is attached to the Education Department, but in Melbourne and in Adelaide the Conservatorium of Music is under the control of the University.

8. Students.—(i) *Total.* The number of students (of whom 1,104 males and 18 females were Commonwealth Reconstruction Training Scheme students), enrolled for courses at the Universities and University Colleges for the year 1953 is shown in the following table :—

UNIVERSITIES : TOTAL STUDENTS ENROLLED, 1953.

University or College.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscel- laneous Subjects.	Total.(a)
		Post- Graduate.	Sub- Graduate.			
Sydney	5,904	112	771	..	185	6,918
Melbourne (b)	6,168	22	248	140	450	7,028
Queensland (Brisbane) ..	2,908	32	328	264	206	3,735
Adelaide	2,344	78	806	..	882	4,110
Western Australia (Perth) ..	1,639	..	..	..	102	1,732
Tasmania (Hobart) ..	503	46	6	32	87	664
N.S.W. University of Tech- nology (Sydney) ..	679	..	3,021	75	276	4,044
New England University College (Armidale, N.S.W.)	209	28	2	..	3	242
Canberra University College	203	..	8	..	108	319
Total	20,557	318	5,190	511	2,299	22,794

(a) Adjustment made for students enrolled for more than one course.
enrolled but attending Canberra University College.

(b) Includes seven students

Of the total students in 1953, 22,794 were males and 5,998 females. Included in those enrolled for degrees were 56 enrolled for higher degree courses in Sydney, 224 in Melbourne, 83 in Queensland, 175 in Adelaide, 64 in Western Australia, 18 in Tasmania, 110 at the New South Wales University of Technology, 4 at the New England University College, and 27 at the Canberra University College.

(ii) *New Students Enrolled.* The number of new students (of whom 27 males were Commonwealth Reconstruction Training Scheme students) enrolled for courses at the Universities and University Colleges during the year 1953 is shown in the following table :—

UNIVERSITIES : NEW STUDENTS ENROLLED, 1953.

University or College.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Total.(a)
		Post-Graduate.	Sub-Graduate.			
Sydney	1,801	..	374	..	16	2,167
Melbourne	1,248	1	78	18	197	1,542
Queensland (Brisbane) ..	597	4	125	51	87	864
Adelaide	418	1	196	..	309	924
Western Australia (Perth) ..	448	..	..	..	16	464
Tasmania (Hobart) ..	174	3	4	21	36	237
N.S.W. University of Technology (Sydney) ..	172	..	510	28	166	875
New England University College (Armidale, N.S.W.)	89	..	1	..	3	93
Canberra University College	76	..	..	..	69	145
Total	5,023	9	1,288	118	899	7,311

(a) Adjustment made for students enrolled for more than one course.

Of the total new students enrolled in 1953, 5,318 were males and 1,993 females. Included in those enrolled for degrees were 11 enrolled for higher degree courses in Melbourne, 11 in Queensland, 6 in Adelaide, 1 in Tasmania, 17 at the New South Wales University of Technology, 4 at the New England University College, and 15 at the Canberra University College.

9. *University Income for General Activities.*—The income of the Universities and University Colleges are derived principally from State and Commonwealth Government grants (including capital grants), students' fees, and income from private foundations, etc. From all sources other than new bequests the income during 1953 for general university functions were as shown in the table below. In South Australia, Government grants and income from private foundations include amounts in respect of the Waite Agricultural Research Institute.

UNIVERSITIES : INCOME FOR GENERAL ACTIVITIES, 1953.

(£.)

University or College.	Government Grants.	Students' Fees.	Interest, Rent, Dividends and Donations.	Other.	Total.
Sydney	879,588	512,035	54,526	33,630	1,479,779
Melbourne	842,772	356,354	25,385	18,185	1,242,696
Queensland (Brisbane) ..	568,366	128,048	17,539	22,119	736,072
Adelaide	556,992	61,021	49,138	14,539	681,690
Western Australia (Perth) ..	397,578	19,412	13,907	38,706	469,603
Tasmania (Hobart) ..	201,391	26,266	1,121	4,284	233,062
N.S.W. University of Technology (Sydney) ..	1,159,951	46,152	..	2,201	1,208,304
New England University College (Armidale, N.S.W.)	141,540	11,099	679	27,338	180,656
Canberra University College	67,039	5,686	185	1,624	75,434
1953—Revenue	4,501,539	1,166,073	162,480	162,626	5,992,718
Capital	314,578	..	..	..	314,578
1952—Revenue	4,140,267	1,137,413	173,455	158,867	5,610,002
Capital	450,142	..	..	..	450,142

10. **Principal University Benefactions.**—In previous issues of the Official Year Book information is given in some detail in regard to the extent to which the Universities have benefited from private munificence. (See Year Book No. 40, pages 467-8).

11. **University Expenditure for General Activities.**—The principal item of disbursements under the general University activities consists of the maintenance of the teaching and research staff, representing 67.7 per cent. of the total in 1953 compared with 64.6 per cent. in 1952.

The following table shows the expenditure including capital expenditure during the year 1953 :—

UNIVERSITIES : EXPENDITURE FOR GENERAL ACTIVITIES, 1953.
(£.)

University or College.	Adminis- tration.	Maintenance of—			Other including Buildings.	Total.
		Teaching and Research Depart- ments.	Premises and Grounds.	Libraries.		
Sydney	166,020	1,017,923	166,282	45,994	84,467	1,480,686
Melbourne	105,187	835,729	119,993	53,617	95,226	1,209,752
Queensland (Brisbane)	44,240	563,235	62,761	30,269	31,303	731,808
Adelaide	63,595	464,790	72,931	28,616	26,567	656,499
Western Australia (Perth)	40,712	294,429	56,890	20,002	59,999	472,032
Tasmania (Hobart)	24,854	164,506	13,763	12,856	12,239	228,218
N.S.W. University of Tech- nology (Sydney)	85,473	757,984	62,295	25,439	277,113	1,208,304
New England University College (Armidale, N.S.W.)	21,873	81,866	18,863	6,797	50,871	180,270
Canberra University College	11,818	49,469	2,661	8,629	5,996	78,573
1953—Revenue	560,540	4,165,651	539,961	231,432	349,428	5,847,012
Capital	3,232	64,280	36,478	787	294,333	399,130
1952—Revenue	556,356	3,811,353	530,342	222,524	364,602	5,485,177
Capital	4,206	93,375	32,055	2,198	429,821	561,655

12. **Funds for Special Purposes.**—(i) *General.* The tables shown in paragraphs 9 and 11 relate to general University activities while the following show the financial position of the Special Purpose Funds which in the main are for Special Research Purposes.

(ii) *Income for Special Purposes.* The following table shows the main items of income for the year 1953 :—

UNIVERSITIES : INCOME FOR SPECIAL PURPOSES, 1953.
(£.)

University or College.	Govern- ment Grants.	Int. rest. Rent. and Dividends and Donations.	Public Examina- tion Fees.	Special Research Grants.	Other.	Total.
Sydney	7,100	44,446	..	161,911	9,906	223,363
Melbourne	51,962	150,847	62,381	47,385	32,239	344,814
Queensland (Brisbane)	7,225	9,140	34,761	36,963	23,754	111,843
Adelaide	14,095	4,885	15,556	20,143	2,500	57,179
Western Australia (Perth)	11,431	37,156	20,244	9,503	17,377	95,711
Tasmania (Hobart)	4,838	2,501	3,471	4,976	429	16,215
N.S.W. University of Tech- nology (Sydney)	13,560	7,230	..	8,812	..	29,602
New England University College (Armidale, N.S.W.) .. .. .	..	306	..	300	..	606
Canberra University College	6,787	24	..	1,000	1,492	9,303
1953—Revenue	109,580	205,773	136,413	290,993	85,197	827,956
Capital	7,418	50,762	..	..	2,500	60,680
1952—Revenue	98,445	165,885	117,519	255,366	164,514	801,729
Capital	21,297	121,565	..	..	87,595	230,457

(iii) *Expenditure for Special Purposes.* The following table shows the main items of expenditure for the year 1953 :—

UNIVERSITIES : EXPENDITURE FOR SPECIAL PURPOSES, 1953.
(£.)

University or College.	Special Research Expenses.	Public Examination Expenses.	Scholarships, Bursaries, etc.	Other including Buildings.	Total.
Sydney	108,753	..	18,293	52,673	179,719
Melbourne	177,328	59,547	5,728	99,777	342,380
Queensland (Brisbane)	40,594	40,290	4,626	13,311	98,821
Adelaide	47,842	17,861	2,533	..	68,236
Western Australia (Perth)	26,835	19,338	10,547	20,178	76,898
Tasmania (Hobart)	9,148	2,851	2,166	..	14,165
N.S.W. University of Technology (Sydney)	28,430	..	1,172	..	29,602
New England University College (Armidale, N.S.W.)	289	..	245	50	584
Canberra University College .. .. .	..	..	2,638	8,531	11,169
1953—Revenue	435,306	139,887	47,948	113,622	736,763
Capital	3,913	..	..	80,898	84,811
1952—Revenue	449,256	132,964	46,178	136,789	765,187
Capital	16,696	..	..	36,631	53,527

13. *Degrees Conferred, etc.*—The following table shows the number of degrees conferred and diplomas and certificates granted for males and females separately, at each University during the year 1953:—

UNIVERSITIES : DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED, 1953.

Course	Sydney.		Melbourne.		Queensland.		Adelaide.		Western Australia.		Tasmania.		N.S.W. Univ. Tech.		Aust.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Degrees—																
Arts	199	172	180	99	53	28	32	21	55	44	29	17	..	..	548	381
Law	74	3	64	4	14	..	19	2	12	1	7	..	..	..	190	10
Commerce or Economics	66	31	145	10	36	3	9	..	..	..	8	2	..	..	264	18
Education	4	..	30	2	2	1	..	..	12	1	..	..	..	..	48	4
Science	143	37	124	26	78	21	74	12	54	10	21	5	27	..	521	111
Medicine(a)	529	90	151	13	44	4	89	14	..	..	..	..	..	..	813	121
Engineering	126	..	120	..	48	..	66	..	36	..	12	..	37	..	445	..
Agriculture	27	3	21	2	12	1	12	..	16	2	..	..	..	..	88	8
Veterinary Science	34	4	1	..	19	1	..	..	..	..	..	..	..	..	54	5
Dentistry	103	5	18	2	43	4	13	..	10	..	..	..	..	..	187	11
Music .. .. .	..	..	5	12	..	..	1	..	..	..	..	..	..	..	6	12
Architecture	36	5	33	1	5	..	..	..	..	..	..	..	..	..	74	6
Divinity	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Total	1,342	322	892	171	354	63	315	49	195	58	77	24	61	..	3,739	687
Diplomas (Post-Graduate)—																
Education	78	52	39	16	18	13	12	8	1	..	11	3	..	..	159	92
Medicine	29	3	18	1	..	..	..	..	..	..	..	..	..	..	47	4
Other .. .. .	..	..	..	1	6	..	..	..	..	..	1	..	..	..	7	1
Total	107	55	57	18	24	13	12	8	1	..	12	3	..	..	13	97
Diplomas (Sub-Graduate)	10	26	50	27	58	24	90	36	..	..	..	..	..	..	208	113
Certificates .. .. .	..	..	..	..	82	6	2	..	2	5	5	7	..	..	91	18

(a) Separate degrees for M.B. and B.S. are conferred at the Sydney University; this fact has to be taken into account to arrive at the number who qualify to practise as medical practitioners.

§ 9. Further Education.

1. **General.**—Beyond the schools, colleges and universities there are agencies engaged in less direct educational work which cannot be readily assessed and described. Among them are the mass media of communications (press, film and radio) which are powerful educational forces—whether they are used specifically to disseminate information such as new agricultural techniques or preventive health measures, or on the other hand in a much more general way to exert a powerful influence on the cultural level of the population. There are also bodies such as Adult Education Authorities, Libraries, Art Galleries and Museums which aim at catering for the educational requirements of particular groups.

2. **Adult Education.**—(i) *New South Wales. University Department of Tutorial Classes.* In 1914 the University Senate established a Department of Tutorial Classes to provide classes and study groups along the lines of similar work in England. The Department conducts tutorial classes in a variety of subjects, grouped under the broad headings of Social, Political and Economic Studies; History and International Affairs; Psychology; Philosophy; Literature and Drama; Foreign Languages; Child Study; Music and Art. Courses range from 9 to 28 lectures, and some go on from first to second and sometimes fourth year.

Since 1938 the Department has conducted a Discussion Group scheme, designed to provide country people in particular with opportunities for group study of the same type of subjects as are studied in its tutorial classes, and in 1946 made provision for groups of people interested in activities such as play reading and performance, writing, public speaking, painting and music-making, rather than discussion. In all the Department enrolled 6,290 students for continuous work in classes and groups in 1952. The Department also produces the *Current Affairs Bulletin* which is issued fortnightly and distributed widely to educational bodies, groups, business organizations and individual subscribers in Australian and overseas.

A library service is provided to all students in classes and groups by the Adult Education Section of the Public Library of New South Wales, and finance for the Department's activities is provided by University appropriation (£14,100 in 1952), Government Adult Education Extension Grant (£18,450 in 1952) and from discussion and other fees. Half the fees from tutorial classes are allotted for organizing purposes.

(ii) *Victoria.* The Council for Adult Education is a statutory body, with a basic annual grant of £25,000. Its expenditure was £74,000 in 1952–53. The Council organizes evening classes, summer and week-end schools, public lectures, sends drama and music to the country centres through its Travelling Theatre and Music Tours, co-operates with the National Gallery of Victoria in the organization of a Travelling Art Exhibition, operates an extensive system of discussion groups in Victoria and provides service for country dramatic and music societies.

(iii) *Queensland.* Each succeeding year has shown a considerable increase in the number of persons availing themselves of the facilities for Adult Education, which is provided by the State Government, working through the Board of Adult Education. In 1953 there were almost 3,000 enrolled students in Brisbane, together with many who attended casually, and at least four times that number in 127 country towns, for which arrangements are made through five district centres. The total attendances recorded at 4,954 lectures, group meetings, etc., was 150,286. As before subjects most in demand were English Literature and English Expression, Psychology, the Appreciation of Music and Art, Home Handicrafts and Photography.

The full cost of Adult Education is borne by the State and admission to all courses is free. The expenditure for the year 1952–53 was £35,039.

(iv) *South Australia.* Since 1917 the University of Adelaide, through the Joint Committee for Tutorial Classes, has provided each year in the metropolitan area series of tutorial classes, lecture classes and study circles on a wide range of subjects of cultural and current interest, for people who have no intention of proceeding to a degree or diploma and are unable to attend the ordinary University courses. The fee is £1 15s. a course and is paid to the Workers' Educational Association, which accepts the responsibility of organizing the classes. The enrolment for these classes in 1953 was 1,238. The Joint Committee extends its activities into the larger country centres by sending art exhibitions and plays on tour, lending boxes of books and arranging lectures and film screenings.

(v) *Western Australia.* In Western Australia the policy of the Adult Education Board, is to provide men and women of varying educational attainments in country districts as well as in the metropolitan area with facilities for the constructive use of leisure by use of head or hands and in such a way as to stimulate in the individual a sense of citizenship and to encourage community activities among groups.

The Board organizes lecture classes, summer schools and discussion groups, sends drama and ballet companies to country towns, and encourages the activities of local repertory clubs. Other notable features of the work of the Board in 1952 were the presentation of concerts of a classical nature, screenings of foreign films, and open-air dramatic productions to the metropolitan public.

(vi) *Tasmania.* Although some form of Adult Education has existed since 1913 it was not until 1948 that provision was made by legislation for the formation of an Adult Education Board to plan and develop adult education in Tasmania and to assist other bodies actively engaged in adult education.

The executive officer of the Board is the Director of Adult Education, at Hobart, under whose direction three Regional Officers organize Adult Education in areas each covering approximately one-third of the State, and a fourth is organizer for Hobart.

In 1952 there were 167 courses in all subjects, with nearly 2,000 enrolled students. The State Government grant in 1952-53 was £20,000. Subjects most in demand are women's crafts such as dressmaking, then, in descending order of interest, drama, arts and crafts, public speaking, useful hobbies like photography, languages, psychology, science like marine biology, world affairs, economics, academic subjects.

3. *Workers' Educational Associations.*—In 1913, Workers' Educational Associations were formed in all the States of Australia, and later in New Zealand. The movement has for its object the bringing of the University into closer relationship with the masses of the people, and providing for the higher education of the workers in civic and cultural subjects.

In Victoria the Association has been superseded by the Council for Adult Education, a statutory body appointed by the Government. A Statutory Board has also been appointed in Queensland. Direct grants are made by the Governments of New South Wales and South Australia. Grants in 1952, for classes and discussion groups organized by the Association and serviced by their respective State Universities in these two States, were as follows :—New South Wales, £32,590, 110 tutorial classes, 120 discussion groups (taking 181 separate courses) and 57 Kit groups; South Australia, £5,000, 34 tutorial classes and extension lectures at country centres.

Grants from fees from the Tutorial Classes amounting to £10,850 were made to the Association in New South Wales for both organizing work and a teaching service. The teaching service in 1952 included 25 classes, 5 summer schools (two each of 10 days, one of 7 days, and 2 of 5 days), 24 week-end schools, 37 public lectures (mainly in short courses of 3 lectures), 63 lectures to various organizations, and 35 broadcast talks. In South Australia the Association receives a grant of £812 for general organizing purposes.

In Tasmania the Association received a grant of £1,000 from the Adult Education Board and 108 lectures were organized in 1952, mostly in short series from 3 to 12. The Association's primary interest has been in subjects related to social change such as Industrial History, Economics, Political Science and Sociology. In recent years, however, there has been a substantial increase in the number of classes studying Psychology, History, Literature, Music, Drama and Popular Science.

4. The New Education Fellowship.—The New Education Fellowship is a world organization 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.

One of its principal functions is the organization of periodic conferences, to which leading oversea educators are invited. Sessions are usually held in each of the capitals and in various country centres, thus enabling oversea leaders of educational thought to influence considerable numbers of Australian teachers and others. Conferences of this type were held in 1937, 1946, 1949 and 1951.

§ 10. Libraries.

1. General.—The Munn-Pitt Report of 1935 greatly stimulated interest in libraries and librarianship throughout Australia. This is seen in the rapid development of libraries in all States, all of which have now passed legislation to increase library services, and in 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, its functions now including the promotion and improvement of libraries and library services. The Association conducts annual examinations for which students are prepared by courses of instruction in all States. Formal library schools exist in the National Library, Canberra, and the Public Libraries at Sydney and Melbourne.

2. Commonwealth.—(i) *Commonwealth National Library.* This library was created as the Commonwealth Parliamentary Library in 1901. The library of Congress was chosen in 1903 as the model upon which its collections and services should be developed and it has therefore assembled a great reference collection with special emphasis on Australian material and rendering services on a national basis.

While the provision of a reference service to members of Parliament and to Government Departments remains a primary responsibility, the National Library now offers research facilities to University institutions in the Australian Capital Territory and to students of Australian history and affairs, publishes basic bibliographies in the field of Australiana and serves as a free public library for residents of the Australian Capital Territory.

In 1953 it contained about 400,000 volumes, together with many tens of thousands of pamphlets, pictures, prints, maps, manuscripts and historical objects, scores of thousands of feet of microfilm, about two and a half million feet of moving picture films and 100,000 cubic feet of archives. It is particularly strong in the social sciences, in its holdings of Government publications, Australiana, and material relating to countries of the Pacific and adjacent regions.

The rapid growth of its Australiana, strengthened by the acquisition of the Petherick collection of 16,500 items in 1911, and the notable collection of Cook manuscripts in 1923, caused the Library Committee in the latter year to adopt the title of "Commonwealth National Library".

The National Library's activity in the field of Australiana was substantially advanced when, following the posting of a Liaison Officer to London in 1944, arrangements were concluded to microfilm, in association with the Public Library of New South Wales, original records relating to Australia in the Public Record Office and elsewhere.

The operation of the Commonwealth Publications Exchange Agency, established in 1947, brings substantial sets of official publications of overseas countries as well as those of research institutions and learned societies throughout the world. Under the Copyright Act 1912 the publisher of every book, pamphlet, etc., printed in Australia is required to deposit a copy in the Library.

The National Library is the Archival Authority for the records of all Commonwealth Departments and Agencies and repositories have been established in Canberra, Melbourne, Sydney, Brisbane and Adelaide. The National Library is also the central library of documentary and educational films, and is the non-theatrical film distributing agency in Australia for the Australian National Film Board. The film collection contains about 4,000 titles, together with Australian historical films and a great number of film strips.

The National Library is also responsible for providing and servicing the Australian reference libraries at all Commonwealth Government establishments overseas. Library services for Commonwealth Territories began in 1936 and are now established in Papua-New Guinea and the Northern Territory, as well as in Norfolk Island and Nauru. The National Library selects, purchases and provides and catalogues the major part of the book stocks, assists in meeting reference needs, and provides the Chief Librarian in the Northern Territory.

(ii) *Patent Office Library.* The library of the Commonwealth Patent Office, Canberra, contains over 56,000 volumes. Patent specifications of inventions are received from the principal countries of the world, and a wide range of technical literature and periodicals is available.

(iii) *The Australian War Memorial Library.* In the War Memorial library are housed the documentary and pictorial records of Australia's fighting Services, collected during and after both world wars. This mass of material is constantly being augmented by the addition of books, periodicals and other records covering contemporary trends and events in the field of military history and science, as well as records of earlier wars in which Australian troops participated.

The printed records section contains approximately 50,000 volumes, a large collection of military maps, newscuttings and newspapers, sound recordings of war leaders and personalities, war posters and postage stamps. Many personal collections by distinguished soldiers and historical documents relating to the wars have also been placed in the Memorial's custody.

Written records comprise correspondence files of head-quarters and units of both world wars, and the original war diaries compiled from day to day by each unit during its existence.

The collection of official war photographs covering 1914-18 and 1939-45 Wars numbers over 250,000, and a similar collection of official motion picture film depicting Australia at war totals about 4 million feet.

Facilities for public research are not yet fully developed, but all requests for information are met where practicable.

(iv) *Other Departmental Libraries.* The following Commonwealth authorities in Canberra have specialized collections in their own fields, and in addition draw largely on the National Library :—Attorney-General's Department, Commonwealth Bureau of Census and Statistics, Commonwealth Forestry and Timber Bureau, Department of Commerce and Agriculture, Department of External Affairs, Department of Territories, Department of Health, Department of National Development, Commonwealth Public Service Board, Department of Trade and Customs, Department of Works, and News and Information Bureau of the Department of the Interior.

The Department of Labour and National Service has its main library in Melbourne, and branch libraries in Sydney and Adelaide. Other departmental libraries in Melbourne are those of the Department of Air, Department of Defence, Department of Social Services and Postmaster-General's Department. The library of the Commonwealth Office of Education was established in Sydney during 1945.

(v) *Commonwealth Scientific and Industrial Research Organization.* The head office in East Melbourne maintains a library covering all branches of science except the medical sciences. In addition, each division and section of the Organization has its own library; together, these form a series of specialist libraries covering such subjects as food preservation, horticulture, fisheries, entomology, botany, agriculture, veterinary science, animal husbandry, building research, dairy products, etc. There are 22 such branches, each with its own staff varying in number from one to sixteen, and also smaller collections under the care of research officers aided by visiting librarians. Ten of the branches are in Victoria, eight in New South Wales, two in South Australia, and one each in the Australian Capital Territory and Queensland. The Head Office Library maintains a union catalogue of the holdings of all C.S.I.R.O. libraries, and small union catalogues are being developed among groups of branch libraries with similar interests. The collections are particularly strong in the publications of overseas scientific and technical research institutions, with many of which exchange relations exist. The general public may have access to these materials for reference purposes.

3. States.—(i) *Metropolitan Public Libraries.* In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favorably with similar institutions elsewhere in the world. The following statement gives the number of volumes in the Public Library of each capital city at 30th June, 1953 :—

METROPOLITAN PUBLIC LIBRARIES, 30th JUNE, 1953.

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Canberra (a)	400,000	..	(b)	400,000
Sydney	(c) 480,631	(d)	140,814	621,445
Melbourne	607,380	85,196	37,540	730,116
Brisbane	110,500	..	20,612	131,112
Adelaide	175,673	34,278	(e) 56,501	266,452
Perth	192,907	..	2,938	195,845
Hobart	49,686	31,099	(f) 158,462	239,247

(a) Commonwealth National Library, including Parliamentary Section. (b) Books are lent to libraries or students throughout Australia whenever necessary for research work. (c) Includes 153,922 volumes in the Mitchell Library. (d) The maintenance and control of the ordinary lending branch of the Public Library at Sydney were transferred in 1908 to the Municipal Council. In 1953, books in this library numbered 122,788. (e) Includes 7,256 volumes in the Children's Branch. (f) Includes 103,241 volumes in the Children's Branch.

(ii) *New South Wales.* The Free Library Movement in New South Wales, founded for the establishment of a system of public libraries on the basis suggested in the Munn-Pitt Report of 1935, helped to pave the way for the Library Act 1939, which was fully proclaimed as from 1st January, 1944. The Library Board was fully constituted in 1944, and came into effective operation in September of that year. One hundred and twenty-seven Councils have adopted the Library Act and during 1952-53 spent £263,499 on their libraries from rates, as well as £149,917 received in subsidy. There are 130 libraries, containing 847,354 volumes, being operated by 123 councils.

New South Wales departmental libraries are staffed by officers seconded from the State Library, which also provides a central book-buying and master cataloguing service for departmental libraries, and municipal and shire libraries constituted under the 1939 Act. The State Library also manages the libraries of the University Tutorial Classes and the Workers' Educational Association.

The Country Circulation Department forwards books on loan to State schools, to Schools of Arts and to individual students. During 1953-54, 111,101 books were lent to small State schools, 38,199 to Schools of Arts and small country libraries, 306 to the Far Western Division, and 11,007 Special Loans lent for extended periods to shire and municipal libraries and to Lord Howe Island, while 29,340 reference works were lent to individual country students.

The Mitchell Library in Sydney of more than 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia and the Southern Pacific, and valued at £100,000, was bequeathed to the trustees of the Public Library in 1905 by Mr. D. S. Mitchell, together with an endowment of £70,000. The testator stipulated that the regulations of the British Museum were to be adopted as far as possible, hence the library is the resort of specialists. There are now 153,922 volumes in the library, in addition to valuable manuscripts, collections of Australian postage and fiscal stamps, and various pictures, coins, etc.

In Newcastle, Dr. Roland Pope has given his collection, worth £10,000, which is being housed temporarily at the School of Arts.

Other important libraries in New South Wales are the Australian Museum, 33,450 volumes; Teachers' Colleges, 130,572; Technical Education Branch, 87,626; Public Schools, 1,213,691; Railways Institute, 142,369; Road Transport and Tramways Institute, 48,663; Cooper Library of the New South Wales Public School Teachers' Federation, 17,467; and the Library at the National Herbarium, 10,000 volumes. At 30th June, 1953 the Parliamentary Library contained 111,462 volumes.

(iii) *Victoria.* Until the establishment of the Free Library Service Board in 1947, the only public library facilities available in Victoria except from the State Public Library and one or two Metropolitan Municipal Libraries were those offered by about 200 out-moded Mechanics' Institute Libraries situated in country areas all over the State. The Board's policy has been to substitute for these inadequate services an efficient system of adequately stocked, modern public libraries controlled by local Municipal Councils and subsidized by the Board. Since the Board's inception 56 municipalities, comprising 934,000 of the State's population, have established libraries. Of these, 15 are in the city, serving 616,000 people, and 41 in the country, serving 318,000 people. The amount of £96,000 was paid to the Councils in library subsidy for the year 1952-53 and a total of £173,435 was expended in Municipal Library Service for the same year. There are 435,745 books available to the communities in which libraries are established and combined circulation figures were 2,794,600 as at 30th September, 1952.

(iv) *Queensland.* Prior to 1945 Queensland's library needs were met by the State Public Library, established in 1902 and administered by the Chief Secretary's Department, and by Schools of Arts or similar libraries in metropolitan and country districts supported by members' subscriptions. The Libraries Act 1943 constituted a Library Board "to attain efficient co-ordination and improvement of the library facilities of the State with the object of placing such facilities on a sound basis for the benefit and educational improvement of the citizens generally throughout the State".

The control and management of the Public Library has been entrusted to the Board, which had built up the book collection to 131,112 volumes in 1952-53. The Libraries Act Amendment Act of 1949 provides for the deposit in the Public Library of a copy of all books, pamphlets, maps and other printed material published in Queensland. A country extension service for people residing outside the metropolitan area is now operating on a limited scale. Its book collection numbered 20,612 in 1952-53.

The Board endeavours to encourage the establishment of new library services and the extension of existing facilities by subsidizing local bodies on a £1 for £1 basis for the purchase of books and the cost of library space and equipment. The number of local bodies subsidized was 93 in 1952-53.

The Act empowers local authorities to establish library facilities. In 1953, 26 local authorities were conducting library services, and several others have indicated that they will do so in the near future. The Brisbane City Council has established nine libraries, of which five have separate children's collections, and hopes to increase the number to 28.

The Oxley Memorial Library was established in 1926 to promote the study of Australian literature, literature relating to Australia and Queensland historical material. Since 1946 it has been administered as a department of the Public Library, and the collection kept segregated. During the year 1952-53 its holdings in volumes increased from 16,272 to 16,710. A valuable addition in 1950 was the L'Estrange collection of Queensland stamps.

The library of the Parliament of Queensland was established in 1860. It contained in 1952 approximately 80,000 volumes, consisting of official publications and books devoted largely to history and the social sciences. The cataloguing and reclassification of the library commenced in 1948. An amendment to the Act in 1949 entitles the library to a copy of every book published in Queensland.

(v) *South Australia.* Following the Price Report of 1937, the Public Library of South Australia was separated from the Museum and Art Gallery early in 1940 and became a government department, administered by a Principal Librarian and a Libraries Board.

In the Reference department there are about 176,000 volumes and seating for 300 readers. Most of the books may be borrowed. Over 3,000 periodicals are filed, and the collection of newspapers includes every newspaper printed in South Australia. There are 34,000 volumes in the Lending Department available to persons living in the Metropolitan area, and the Country Lending Service has 49,000 volumes of which, more than half are suitable for children.

The Research Service specializes in scientific and technical inquiries, and supplements the resources of the Public Library by borrowing from other libraries and by obtaining microfilm copies of material not available locally. It has an extensive collection of trade catalogues.

The library of the Parliament of South Australia contains 65,000 volumes.

The Institutes Association in 1953 comprised 240 suburban and country libraries with 760,454 volumes.

(vi) *Western Australia.* The Library Board of Western Australia was constituted by Act of Parliament in 1951, to advise the Minister on matters of general policy, to approve of libraries to be registered as free libraries and to provide for their control, and to control and manage libraries and services and the training of librarians.

In 1945 an Archives Branch was established at the Public Library as a repository for the non-current records of the Government and other historical material relating to Western Australia, including the collection of the Western Australia Historical Society.

An Adult Education Library of 12,000 volumes of general reading and fiction provides for readers in metropolitan and country areas. The library is conducted by the Adult Education Board and requires no deposit from its readers. The Board pays outward freight for country readers.

(vii) *Tasmania.* Library service in Tasmania has expanded rapidly during the past few years. Under the Libraries Act 1943 the Tasmanian Library Board was constituted, and the State Library of Tasmania was established on 1st January, 1944. The Board, in addition to administering the State Library headquarters in Hobart, is responsible for the extension of library services throughout the State and for the control of State

aid. Municipalities adopting the Act spend the proceeds of local rates on library premises, salaries and maintenance, and books for permanent retention. State aid is provided in the form of books of a value equal to the amount collected in rates, which are exchanged at intervals. In Launceston State aid is given in cash. In 1952-53 the Launceston City Council contributed £5,560 and £5,114 was received in State aid.

Of the 49 municipalities in the State, 36 have adopted the Act and seven libraries have been established with the support of the Hydro-Electric Commission.

The State Library provides lending and reference services for the people of Hobart and operates a reference service for people throughout the State. In addition, it conducts screenings of documentary films, recitals of recorded music, summer schools, lectures, library weeks in country centres, puppetry demonstrations, etc.

The Parliamentary Library works in close collaboration with the State Library, which provides a reference officer to serve members during session, and undertakes to catalogue all new books added to the library as well as supplying recreational reading.

4. **University Libraries.**—The libraries of the Australian Universities provide material not only for the education of graduates and undergraduates, but also for scholars, research workers and practical investigators all over the continent. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialized than the public libraries. They lend to one another and to State and private institutions as well as to individual investigators. Each of them is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professional staff. In size, the Library of the University of Sydney is the fourth library in Australia, and the Libraries of the Universities of Melbourne and Adelaide are respectively seventh and ninth. The following table shows the sizes and rates of growth and expenditure of the Australian university libraries; it is impossible to give borrowing statistics, as they differ too widely to be comparable without much explanation.

UNIVERSITY LIBRARIES, 1953.

University or College.	Volumes.	Accessions during year.	Expenditure.
	No.	No.	£
Sydney	349,931	7,031	45,994
Melbourne	196,680	12,233	53,617
Queensland	117,515	9,374	30,269
Adelaide	184,713	7,883	28,616
Western Australia	115,154	5,987	20,002
Tasmania	81,000	3,618	12,856
New South Wales University of Technology	45,488	2,163	25,439
New England University College	25,159	2,278	6,797
Canberra University College	16,232	3,055	8,629
Australian National University	91,702	3,618	44,984

The first books were bought for the Library of the University of Sydney as early as 1851; only since 1910, however, has it possessed a building of its own. It is named after the principal benefactor, Thomas Fisher, who bequeathed to it in 1885 the sum of £30,000. It contains an up-to-date bookstack of glass and steel and a fine reading room in which, since the beginning of 1941, about 18,000 volumes of the collection have been made available on open access shelves. In addition, members of the teaching staff and certain classes of undergraduates are admitted to the bookstacks; all readers are encouraged to borrow freely. The Library possesses a large number of periodicals, especially scientific, valuable collections of seventeenth-century pamphlets and

Elizabethan translations from the classics, and an extensive collection of Australian literature. Besides medical and law branches, there are a number of departmental libraries.

Early in 1854 the University of Melbourne made its first allocation for books, but the Library was housed in temporary quarters for a number of years. In recent years the university authorities have treated the Library generously, and there have been some welcome benefactions, but accommodation is insufficient and a new library building is a pressing need of the University. The W. L. Baillieu Trust has made available the first instalments of a £100,000 gift for building purposes. All the books are accessible on open shelves, and though the Library is intended primarily for reference purposes, borrowing, except of text-books and certain valuable volumes, is made as easy as possible. The Library is administered from the centrally situated general library; there is a large medical branch library specially rich in periodicals, and smaller branch libraries in some of the science departments.

The Library of the University of Queensland, founded in 1911, began with £3,000 worth of books, £2,000 having been raised by public subscription and £1,000 granted by the Government. The main library is now in its own building in the new University at St. Lucia.

The Adelaide University Library bears the title of its original benefactor, Robert Barr Smith, who, with members of this family in and after 1892, gave the University about £50,000 for library purposes. Some 20,000 volumes are shelved in the reading room and are available to the ordinary student. Up-to-date steel bookstacks provide accommodation for about 100,000 volumes. Borrowing facilities are available to all matriculated students, to country students and to graduates. There are medical and law departmental libraries. The medical library has on permanent loan the collection of the Institute of Medical and Veterinary Science, and also incorporates the library of the British Medical Association (South Australian Branch).

In the University of Western Australia the first permanent library staff was not appointed until 1927. Provision of permanent library accommodation was not possible when the University moved to its present site, and space and facilities have consequently been inadequate. Extensions to the temporary quarters were made in 1946. The whole collection, consisting of about 115,000 volumes, is accessible on open shelves, and there are several departmental libraries. A special feature is the use made of students' co-operation.

The Library of the University of Tasmania was founded in 1893, but for many years it comprised little more than a collection of text-books. In 1913 a substantial increase of funds was allotted and important gifts were received. In 1910 it was organized for the first time in accordance with modern library practice. A full-time librarian was appointed for the first time at the end of 1945, and the staff has increased from two to ten. The Library is now providing a cataloguing service for the library of the Royal Society of Tasmania.

The New England University Library was founded in 1938, and bears the name of its first benefactor, Sir William Dixon. At the end of 1953 it contained some 25,159 volumes mainly on open shelves.

The Canberra University College Library was established in 1938. At the end of 1953 it contained 16,232 volumes, which are on open shelves; reference books may be borrowed.

The library of the Australian National University is unique in that it is designed to serve the research staff of a wholly post-graduate institution. It specializes in the fields of the physical and medical sciences, excluding clinical materials. In the social sciences and Pacific studies consideration is given to the holdings of the Commonwealth National Library to avoid unnecessary duplication. The library was established in 1948 and operated in Melbourne until December, 1950, when it was transferred to Canberra. The collection comprises some 92,000 volumes, and in addition a special collection of 25,000 volumes in Oriental languages.

5. *Children's Libraries and School Libraries.*—(i) *General.* A survey conducted early in 1946 revealed that only a small proportion of children was being catered for by adequate library service. The effective use made of the few existing children's libraries is proof that the growing interest in this branch of library work will be well rewarded.

(ii) *New South Wales.* Children's libraries are being developed as departments of municipal and shire libraries. Three formerly independent children's libraries at Mosman, Wollongong and Moss Vale are now departments of municipal and shire libraries and have greatly increased budgets.

From 1937–38, school library work has been fostered by the State Library in co-operation with the Education Department. A "Model School Library" was established, and vacation classes for teacher librarians are held. In 1949 there were 63 district units under the central library scheme.

(iii) *Victoria.* Since 1943–44 children's libraries have shared a grant of £500 between them, the number participating in 1950 being 34.

The Education Department is making provision for libraries in new schools being erected. Where accommodation is available in existing schools, grants of up to £4 for £1 are provided to furnish and equip libraries. In addition, the Government subsidizes the purchase of approved books on the basis of £1 for £1, or £2 for £1, according to the size of the school, to a maximum grant of £60 per annum.

With the assistance of school committees and municipalities, subsidized by the Department, many country districts have established circulating group libraries. Boxes of books are circulated to all schools in the group, changes being made at the commencement of each school term. Financed by a bequest from the late William Gillies, a scheme of circulating libraries for small schools, particularly in remote areas, has been operating for some years. At present 441 schools benefit from this scheme.

The Department has a Library Services Officer with a small staff to advise and assist schools in the organization of libraries. A number of Education Department teachers have been trained at the Library School of the Public Library of Victoria, and an increasing number of schools have well-equipped library rooms with trained teacher-librarians in charge.

(iv) *Queensland.* The purchase of books in State school libraries in Queensland is financed by school committees and parents' associations, with a subsidy from the Department of Public Instruction on a £1 for £1 basis. The subsidy was suspended from 1931 to 1943.

In 1937 a system of Circulating Supplementary Readers was commenced. Books are graded for age levels and are moved from school to school, sufficient copies of each book for a whole class being sent, and reading being done in school. There are 96,000 such books now in use, the distribution at present being confined to primary schools.

(v) *South Australia.* A Children's Library of 7,300 volumes is used by school classes and individual children living in the metropolitan area. Books of fiction are lent to children of fourteen years and over, while other books may be borrowed by children of any age.

(vi) *Western Australia.* For schools with more than two teachers, including high schools and technical schools, £1 for £1 subsidy up to £50 is granted each year. New primary schools are provided with a room for a library, while high schools and some technical schools have a teacher acting as librarian.

For schools with one or two teachers there are two services. Through the Small Schools Fixed Library Service reference books up to the value of £15 are supplied annually to be kept permanently in the school. The Charles Hadley Travelling Library provides recreational reading, and operates 250 boxes which can be exchanged every three months.

through a local school acting as distributing centre for a district. The Government grants £250 per annum for this service, and the participating schools contribute the commission received from the Commonwealth Bank for the teachers' services—about £200.

Children in isolated country areas are catered for by books sent out by the State Correspondence Schools Library. The children are kept in touch with the Library by means of radio talks and leaflets issued periodically. There is as yet no general scheme to serve children in the metropolitan area.

The Federation of Police and Citizens Boys' Clubs of Western Australia aims at establishing a system of circulating boxes of books at an estimated cost of £10,000. Books are in circulation to 44 centres, of which 15 are Police Boys' Clubs, 24 State Schools, and 5 Children's Libraries.

Western Australian Children's Book Council Inc. was incorporated in 1948 and receives a government grant to assist its work of interesting local authorities in establishing children's free libraries.

(vii) *Tasmania*. The Lady Clark Memorial Children's Libraries, at the State Library, Hobart, aim to serve all children in Tasmania with books. They work through the municipal authorities; at 30th June, 1952, 55 children's libraries had been established in 49 municipalities, including Hobart, and six special Hydro-electric districts, children's books being provided on a population basis.

Practically all State secondary schools in Tasmania have libraries, with full-time librarians in four of them. The libraries of the Friends' School, Hobart, and the Hobart High School are among the foremost of their kind in Australia.

A Schools' Library Service assists with loans of curriculum books, and provides advice and guidance in the use of books. In 1953 the number of schools receiving service was 115 and books issued was 7,924. The majority of primary schools have libraries; most area schools, in particular, have good ones.

The Education Department sends, each year, selected students or teachers to the Library School in Sydney.

6. **Special Libraries.**—Before the 1939–45 War the number of special libraries, apart from those maintained by government departments, was small, but during recent years many manufacturing, commercial, research and other firms, as well as statutory bodies, have found it necessary to establish special libraries to serve their specialist or other staff. These libraries, which are most numerous in Sydney and Melbourne, are being increasingly staffed by trained librarians.

7. **Microfilms.**—The following libraries supply microfilm or photostat copies of material, usually at a small charge (the letter "P" signifies photostat supplies and "M" microfilm supplied):—*Australian Capital Territory*—Australian War Memorial (P), Commonwealth National Library (PM), C.S.I.R.O. (M); *New South Wales*—Metropolitan Water Sewerage and Drainage Board (P), Public Library of New South Wales (M), Standards Association of Australia (P), School of Public Health and Tropical Medicine (M), Fisher Library, University of Sydney (PM); *Victoria*—Commonwealth Serum Laboratories (P), Technical Information Section, Munitions Supply Laboratories (PM), Public Library of Victoria (M), Standards Association of Australia (Melbourne Branch) (P), University of Melbourne (PM), C.S.I.R.O. (M); *Queensland*—Public Library (P); *South Australia*—Public Library of South Australia (PM), University of Adelaide (PM), Waite Agricultural Research Institute (P); and *Tasmania*—University of Tasmania (PM).

§ 11. Public Museums.

The Australian Museum in Sydney, founded in 1836, is the oldest institution of its kind in Australia. In addition to possessing fine collections of the usual objects found in kindred institutions, the Museum contains a very valuable and complete set of specimens of Australian fauna. The cost of construction of the building to 30th June, 1953 was £87,660. The number of visitors to the institution during 1952-53 was 289,692, and the average attendance on week-days 580, and on Sundays 1,503. The expenditure for 1952-53 amounted to £57,968. A valuable library containing 33,450 volumes is attached to the Museum. Courses of evening popular lectures are delivered and lecturers also visit distant suburbs and country districts, and afternoon lectures for school children are provided. Nature talks are also broadcast by radio. Representative collections illustrative of the natural wealth of the country are to be found in the Agricultural and Forestry Museum and the Mining and Geological Museum. The latter institution prepares collections of specimens to be used as teaching aids to country schools. The "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History and the Museum of Normal and Morbid Anatomy attached to the University, and the National Herbarium and Botanical Museum at the Sydney Botanic Gardens, are all accessible to the public. There is a Museum of Applied Arts and Sciences in Sydney with branches in four country centres. Expenditure during the year 1952-53 was £42,942. Valuable research work is being performed by the scientific staff in connexion with oil and other products of the eucalyptus and the gums, tanning materials, and other economic products of native vegetation generally.

The National Museum at Melbourne, devoted to natural history, geology and ethnology, is located in the eastern section of the Public Library Building. The National Art Gallery is situated in the same building. The Museum of Applied Science, also housed under the same roof, contained at 30th June, 1951, 23,423 exhibits which covered applied and economic aspects of all branches of science. There is a fine Museum of Botany and Plant Products in the Melbourne Botanic Gardens. In addition to the large collection in the geological museum attached to the Mines Department in Melbourne, well-equipped museums of mining and geological specimens are established in connexion with the School of Mines in the chief mining districts.

The Queensland Museum, founded in 1855, comprises exhibited and reference collections of zoology, geology and ethnology. It is entirely maintained by the State Government, and the cost of the building was £41,778. Expenditure for the year 1952-53 was £20,763. The collections are principally, but not exclusively, Australian; there is, for example, the excellent series of ethnological material formed by Sir William McGregor in New Guinea. The publication is *Memoirs of the Queensland Museum* which was preceded by the *Annals of the Queensland Museum*. The library is extensive and valuable, and of great assistance to research workers in the State. In 1953 continued enthusiasm was shown by both adults and children for the brief talks and showing of instructional films which have become a feature of school vacation periods. A second refresher course for school teachers was conducted in January, 1953.

The Queensland Geological Survey Museum has branches in Townsville, opened in 1886, and in Brisbane, opened in 1892.

The South Australian Museum has considerable collections of most branches of natural history and was attended by 150,000 visitors in 1952-53. Cost of construction of the Museum building was returned as £65,000. In 1952-53 expenditure was £36,100.

The latest available returns show that the Western Australian Museum and Art Gallery contains altogether 205,000 specimens, of an estimated value of £107,000. The Museum, Art Gallery, and Library are housed in one building, and the visitors to the combined institutions during the year reached 45,000. At 30th June, 1953, the structure was valued at £65,500.

There are two museums in Tasmania—the Tasmanian Museum at Hobart, and the Victoria Museum and Art Gallery at Launceston—both of which contain valuable collections of botanical, mineral, and miscellaneous products. The Museums received aid from the Government during 1952–53 to the extent of £15,325. The cost of construction in each case is included in that of Art Galleries given below.

§ 12. Public Art Galleries.

The National Art Gallery of New South Wales originated in the Academy of Art founded in 1871. Cost of construction of the present building amounted to about £96,000. At the end of 1952 its contents comprised 1,147 oil paintings, 717 water colours, 1,956 black and white, 237 statuary and bronzes, and 1,057 ceramics, works in metal and miscellaneous. Since 1895, loan collections of pictures have been regularly forwarded for exhibition in important country towns.

The National Gallery at Melbourne at 30th June, 1951 contained 2,214 oil paintings, 7,802 objects of statuary, bronzes, ceramics, etc., and 22,754 water colour drawings, engravings and photographs. The Gallery is situated in the same building as the Museum and Public Library, the total cost of construction being £439,000. Cost of purchases during 1950–51 was £56,742. Several munificent bequests have been made to the institution. That of Mr. Alfred Felton, given in 1904, amounts to about £8,000 per annum. In 1913, Mr. John Connell presented his collection of art furniture, silver, pictures, etc., the whole being valued at £10,000. There are provincial art galleries at Ballarat, Bendigo, Geelong, Castlemaine and Warrnambool, and periodically pictures are sent on loan from the National Gallery.

The Queensland National Art Gallery, Brisbane, maintained by the State Government, was founded in 1895. It was moved to the present temporary site on Gregory Terrace in 1929. A Director was appointed in 1950, in which year the interior of the Gallery was remodelled. More recently an Art Museum and a Print Room have been opened. At 30th June, 1953, there were on view 316 oil paintings, 188 water colours, 286 black and white, and 48 pieces of statuary, together with 142 various prints, mosaics, and miniatures. Exclusive of exhibits on loan, the contents are valued at about £22,160. Visitors during the year averaged 960 on Sundays and 350 on week-days.

The Art Gallery at Adelaide dates from 1880, when the Government expended £2,000 in the purchase of pictures, which were exhibited in the Public Library Building in 1882. The liberality of private citizens caused the gallery rapidly to outgrow the accommodation provided for it in 1889 at the Exhibition Building, and on the receipt of a bequest of £25,000 from the late Sir Thomas Elder, the Government erected the present building, which was opened in April, 1900. The Gallery also received bequests of £16,500 in 1903 from the estate of Dr. Morgan Thomas, and valuable prints and £3,000 in 1907 from Mr. David Murray. In 1935 Mr. Alex Melrose gave £10,000 for the extension of the building. At 30th June, 1953 there were in the Gallery 1,516 paintings in oil and water colours, 571 drawings and black and white, and 97 items of statuary, the contents being valued at £99,000. The cost of construction of the Art Gallery amounted to £48,000. The expenditure during 1952–53 was £18,100.

The foundation stone of the present Art Gallery at Perth in Western Australia was laid in 1901, and the Public Library, Museum, and Art Gallery are all situated in the one structure. The collection comprises 231 oil paintings, 153 water colours, 375 black and white, 276 statuary, and 1,438 ceramic and other art objects, the whole being valued at £33,500. Cost of construction of the buildings amounted to £10,000.

In Tasmania, the Art Gallery at Hobart was opened in 1887. At June, 1953 the contents consisted of 115 oil paintings, 60 water colours, 7 black and white, 3 statuary and 82 etchings, engravings, etc. The cost of construction of the building was £4,500. Expenditure in 1952–53 was £11,838.

The Art Gallery at Launceston was erected in 1888 at a cost of £6,000, and opened on the 2nd April, 1891. Only a small proportion of the contents belongs to the gallery, the bulk of the pictures being obtained on loan. At June, 1953 there were on view 48 oil paintings, 26 water colours, 4 black and white, and 3 engravings and miscellaneous exhibits. Expenditure in 1952-53 was £8,520.

§ 13. Scientific Societies.

1. **Royal Societies.**—In previous issues of the Official Year Book an outline was given of the origin and progress of the Royal Society in each State. The accompanying table contains the latest available statistical information regarding these institutions, the head-quarters of which are in the capital cities.

ROYAL SOCIETIES 1953.

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Canberra.
Year of Foundation	1800	1854	1884	1880	1914	1843	1930
Number of members	361	264	240	201	198	471	126
Vols. of transactions issued ..	87	97	63	75	37	87	..
Number of books in library ..	30,400	22,000	47,024	15,800	4,500	29,499	..
Societies on exchange list ..	415	355	279	280	202	272	..
Income £	2,241	1,629	1,001	2,100	152	976	63
Expenditure £	2,426	851	538	2,100	171	871	47

2. **The Australian and New Zealand Association for the Advancement of Science.**—This Association was founded in 1887. Its headquarters are at Science House, Gloucester Street, Sydney, and meetings are usually held biennially within the various States and in the Dominion of New Zealand. The next meeting is scheduled to take place in Melbourne in August, 1955.

3. **Other Scientific Societies.**—The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874. Sir William Macleay, who died in 1891, during his lifetime and by his will endowed the society to the amount of £67,000, which has been increased by investment to approximately £100,000. The Society maintains a research bacteriologist and offers annually to graduates of the University of Sydney, who are members of the Society and resident in New South Wales, research fellowships (Linnean Macleay Fellowships) in various branches of natural history. Two fellowships were awarded in 1954. The library comprises some 18,000 volumes, valued at about £9,000. Seventy-eight volumes of Proceedings have been issued, and the Society exchanges with about 290 kindred institutions and Universities throughout the world. The membership at the end of 1953 was 236.

The British Astronomical Society has a branch in Sydney, and in each of the States the British Medical Association has a branch.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.

§ 14. State Expenditure on Education, Science and Art.

The expenditure in each State on education, science and art during the year 1952-53 is shown in the following table. Owing to the details not being available in all States, the figures exclude officers' pensions and superannuation, pay-roll tax, and interest and sinking fund on capital expended on buildings. The cost of the medical and dental inspection of school children is also excluded, as this service is more appropriately classified under Public Health, etc..

STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART, 1952-53.
(£'000.)

State.	Expenditure from—				Receipts.	Net Expendi- ture.
	Revenue.	Loan.	Other Funds.	Total.		
New South Wales ..	25,614	4,023	..	29,637	763	28,874
Victoria ..	16,182	3,439	..	19,621	(a) 215	19,406
Queensland ..	7,364	755	278	8,397	186	8,211
South Australia ..	5,632	1,119	..	6,751	228	6,523
Western Australia ..	5,097	1,806	..	6,903	108	6,795
Tasmania ..	2,528	616	..	3,144	12	3,132
Total ..	62,417	11,758	278	74,453	1,512	72,941

(a) In addition, fees in respect of technical education amounting to £304,794 were received and spent by the School Councils.