

This page was added on 03 December 2012 to included the Disclaimer below.
No other amendments were made to this Product

DISCLAIMER

Users are warned that this historic issue of this publication series may contain language or views which, reflecting the authors' attitudes or that of the period in which the item was written, may be considered to be inappropriate or offensive today.

SECTION XXII.

PUBLIC INSTRUCTION.

§ 1. Evolution of Educational Systems in Australia.

1. **Educational Systems of the States.**—(i.) *Place of New South Wales in Australian Education.* The first settlement in Australia being in New South Wales, it is but natural that Australian education should have had its beginning in that State. In the evolution of educational method and system in Australia, New South Wales also has played a leading part, and has had practically a dominating influence. For that reason an account of the evolution of education in this State contains, as it were, the key to the understanding of the Australian attitude to this question. The subject is dealt with in some detail in No. I. and No. II. issues of the Commonwealth Official Year Book, but it is not proposed to repeat it in the present volume. (See also 2 hereunder.)

(ii.) *Educational Systems of Commonwealth States.*—A more or less detailed account of the origin and development of the primary educational systems of the other States also appears in No. I. and No. II. issues of the Year Book. Later details are given hereunder.

2. **Recent Development in State Educational Systems.**—(i.) *New South Wales.* The year 1913 was an important one in New South Wales educational history, in that it was the first complete year of active operation of the principles laid down in the University Amendment Act and the Bursary Endowment Act of 1912. More extended reference to these Acts will be found later on. It was also remarkable for the reorganisation of technical education on a Trades School basis and of the Superior Schools on a vocational basis. Reference may also be made to the development of the Evening Continuation Schools established in 1911, and to the wide extension of the scheme of school medical inspection. As pointed out in the preceding Official Year Book (see No. VII., page 765), the Education Department instituted a scheme of certificated examinations in 1911 called respectively the "qualifying," "intermediate," and "leaving" certificate. The first "qualifying" examination was held in March, 1911, the first "intermediate" in November, 1912, and the first "leaving" in November, 1913. The successful students who were awarded exhibitions at the leaving certificate examination take up University studies in the first term of 1914, thus marking the definite linking up of the State School system with the University.

(ii.) *Victoria.* Under the Amending Education Act of 1910 it is provided that every child must attend school for the full period of eight years between 6 and 14, unless he be given a certificate of education at 13. The schools are open on an average 225 days in each year, and require attendance on all these days, unless reasonable excuse is forthcoming. Provision is made for the mentally deficient. After completion of the elementary school course, the pupil may go on to the Evening Continuation Schools, Higher Elementary Schools, District High Schools, or the Trade Schools. A Council of Public Education has been appointed to advise on educational matters generally, and

particularly in regard to co-ordination. Amongst the new features recently introduced are the recasting of the scheme of study for Primary Schools and the inauguration of a uniform school year. Consequent on this it was found necessary to arrange for a general examination throughout the State for the certificate of merit and the qualifying certificate. The former is granted to pupils who, under prescribed conditions, reach a satisfactory standard in subjects prescribed for Grade VIII., while the latter is awarded to pupils who reach a satisfactory standard in Grade VI. Possession of this certificate enables the holder to enter upon the work of the Higher Elementary or the District High School. Acting on the advice of the Council of Education, the Melbourne University has established a Schools Board. The function of this body is to consider all questions relating to school studies and the inspection and examination of schools. In addition to University representation, there are also on the Board representatives of the Department of Education, the registered Secondary Schools, and the business interests of the community. Being clothed with such wide powers, this Board must of necessity be the chief guiding factor in the development of education in Victoria.

(iii.) *Queensland.* The Amending Act of 1910 introduced several new features into the educational system of Queensland, chief amongst them being—(a) employment of proceeds of sales of land and other school property for school purposes, instead of being paid into Consolidated Revenue; (b) abolition of local contributions; (c) provision of scheme of school certificates to assist in co-ordination of various branches of the system; (d) establishment of compulsory continuation classes; (e) compulsory medical and dental examination; (f) raising the compulsory age to 14 years instead of 12 years; (g) provision for compulsory attendance on every day on which the school is open. The last-mentioned provision has already produced good results in regard to improved attendance. The organisation of the general scheme of education is being systematically developed. State High Schools were inaugurated in February, 1912, and a more liberal scheme of scholarships to secondary schools came into force in 1913. A Teachers' Training College has now been established, and greater attention is being given to the development of technical education.

(iv.) *South Australia.* One of the chief events in educational development in South Australia in 1911 was the provision of Evening Continuation Schools, intended to help those who cannot afford to attend the Higher Day Schools. The State has also come into line with the other States in the matter of medical supervision of school children, and provision has been made for the appointment of a medical officer, a dental officer, and two trained nurses. The changes introduced at the Teachers' Training College have proved very satisfactory, and the academic teaching at the University is now supplemented by systematic pedagogic instruction for all classes of teachers. In 1913 the principle was adopted of simultaneous examination of the schools, and granting to teachers the authority to make the promotions of their scholars.

(v.) *Western Australia.* During 1912 the curriculum of the Primary Schools was remodelled in order to bring it into line with the most up-to-date principles. The work was lightened in directions where experience shewed there was overloading, and efforts were particularly directed towards the removal of the abstract and to the development of the imaginative and constructive throughout all grades. The scheme of bringing about a closer correlation between primary and secondary education was further advanced during the year. The Modern School, opened in 1911, was strengthened. In June, 1914, a Goldfields High School was opened at Kalgoorlie, and it is proposed to establish additional schools at the larger country centres. Continuation classes were held at fifteen centres in 1913, with an average attendance of 2915. Commercial, Industrial, Science, and Domestic courses were provided. Certificates granted to successful students entitle the holder to advanced tuition at the Technical College.

(vi.) *Tasmania.* The most important features in the development of education in Tasmania during 1912 were the establishment of subsidised schools, the taking of preliminary steps towards the establishment of State High Schools, and the adoption of more effective measures to secure regular attendance. In 1913, High Schools were established at Hobart and Launceston. During the year a remodelled set of rules in regard to the planning of new schools was put into operation. All new schools will now be erected in accordance with improved designs, and the older buildings will, as far as possible, be reconstructed, so as to ensure the maximum of comfort in lighting and ventilation.

(vii.) *Present Position of State Education in Australia.* Throughout Australia primary education is compulsory and free, while there exists in most of the States a liberal provision of scholarships and bursaries to the Higher State Schools, to the Secondary Schools, and to the Universities.¹ Provided that the requisite standard is reached, it is, of course, permissible for children to receive home tuition, or to attend so-called private schools. Considerable interest is taken in educational matters by the people of the Commonwealth, and within the last few years several of the States have sent qualified representatives to inspect and report on the methods adopted in the chief countries of Europe and America. The reports of these Commissioners, especially those of New South Wales, have been widely studied, and various improvements have been made in accordance with their recommendations. The orientation, lighting, and ventilation of school buildings are being modernised. In all of the States periodical medical inspection of the children is in force. (A detailed statement of the work being done in this direction will be found in the chapter dealing with Public Hygiene.) Methods of training teachers are now better developed, and although the "pupil teacher" system and its effects have not been wholly eliminated, it appears to be gradually vanishing. (The methods adopted in the various States for the selection and training of teachers are described in some detail in § 2, par. 10, hereinafter.) There has been a wider employment of kindergarten principles in the early stages, and the more or less purely abstract teaching of the older days has been largely replaced by concrete methods. Such subjects as nature study, manual training, music, and drawing have received a general impetus. Greater attention has been given to the scientific classification of pupils. Moreover, as will be seen from the above and from § 2, par. 7, the State Education Departments are increasing their activities in the direction of secondary education. Lastly, the system of inspection has been considerably remodelled. Under the old system, the inspector was little more than an examining officer, but, under the present régime, the primary duty of these officers consists in guiding and directing the teaching in accordance with approved methods.

(viii.) *Co-ordination of Educational Activities.* As pointed out already, the educational system of New South Wales may now be considered as a more or less homogeneous entity, the various stages succeeding one another by logical gradation from kindergarten to university. In the other States development is proceeding on somewhat similar lines, although in varying degree.

§ 2. State Schools.

1. **Introductory.**—The State Schools, or, as they are sometimes termed, the "public" schools, of the Commonwealth comprise all schools directly under State control, in contradistinction to the so-called "private" schools, the bulk of which, though privately managed, nevertheless cater for all classes of the community.

1. Universities have been in existence for some time in New South Wales, Victoria, South Australia, and Tasmania. The University of Queensland was opened in March, 1911, and a University was opened in Western Australia.

2. Enrolment and Attendance.—The following table shows the number of State Schools, together with the teachers employed and the enrolment and “average attendance” in each State during the year 1913:—

STATE SCHOOLS, TEACHERS, AND SCHOLARS, 1913.

(COMMONWEALTH.)

State or Territory.	Schools.	Teachers.*	Scholars Enrolled.	Average Attendance.
New South Wales†	3,285	6,627	245,819	178,028
Victoria	2,218	5,734	213,712	157,140
Queensland	1,338	3,246	98,619	79,955
South Australia	815	1,627	58,656	43,319
Western Australia	556	1,303	41,558	36,264
Tasmania	431	897	26,919	21,174
Northern Territory	4	6	123	68
Commonwealth	8,647	19,440	685,406	515,948

* Exclusive of sewing mistresses. † Including Federal Territory.

Unfortunately, the schemes of enrolment and of the computation of “average attendance” are not identical in each State, so that the comparisons are imperfect. In the case of Victoria, returns were not available in regard to enrolments at District High Schools and Higher Elementary Schools, and these totals were estimated.

The enrolment and average attendance at the State Schools in the Commonwealth are given below for the years 1891, 1901, and for each year of the period 1909 to 1913:—

ENROLMENT AND ATTENDANCE AT STATE SCHOOLS, 1891 to 1913.

(COMMONWEALTH.)

Year.	Total Population.	Enrolment.	Average Attendance.	Year.	Total Population.	Enrolment.	Average Attendance.
1891	3,240	561,153	350,773	1911	4,569	638,850	463,799
1901	3,824	638,478	450,246	1912	4,733	662,576	496,252
1909	4,323	624,236	458,260	1913	4,872	685,406	515,948
1910	4,425	627,910	455,870				

1. In thousands.

3. Schools in the Federal Capital Area.—During the year 1913 twelve State Schools were in operation in the Federal Territory (Yass-Canberra). The pupils enrolled numbered 278 and the average attendance 179. Cost of upkeep in 1913 amounted to £1920. By arrangement with the Federal Government these schools are conducted by the New South Wales Education Department on the same lines as the ordinary State Schools, the Department being recouped for expenditure in salaries and equipment.

4. Centralisation of Schools.—The question of centralisation of schools adopted so successfully in America has received some attention in the Commonwealth, and particularly in New South Wales. It is recognised that a single adequately-staffed and well-equipped central institution can give more efficient teaching than a congeries of small scattered schools in the hands of less-highly trained teachers, and the small schools in some districts were therefore closed and the children conveyed to the central institution. The principle was first adopted in New South Wales in 1904, when the conveyance of pupils was authorised in the case of twelve schools. In 1912 subsidy was paid for conveyance to eighty schools.

5. **Education in Sparsely-settled Districts.**—It has always been the aim of the State to carry the benefits of education into the remotest and most sparsely-settled districts. This is effected in various ways. (i.) By the establishment of Provisional Schools, i.e., small schools in which the attendance does not amount to more than about a dozen pupils, these institutions merging into the ordinary public school list when the attendance exceeds the minimum. (ii.) When there are not enough children to form a provisional school, what are known as Half-time Schools are formed, the teacher visiting them on alternate days. In still more sparsely-peopled districts an itinerant teacher goes from house to house within a certain radius. Thus in Queensland during 1913 the seventeen itinerant teachers covered 512,000 square miles of country and travelled 60,438 miles. In this State also the Education Department has established what are known as Saturday Schools, in which small groups of children in outlying districts are visited by the nearest teacher on Saturdays and receive the benefit of several hours' instruction. These schools, of which there are now ten, have been warmly welcomed in the districts in which they are established, inasmuch as under this system the children "outback" receive a greater amount of instruction than is possible under the system of itinerant teachers. During 1913 the Education Department in Western Australia disbursed £3680 in "driving grants," i.e., sums of money granted to parents whose homes are over three miles from the nearest school, and who arrange to have their children driven in. In New South Wales and Western Australia parents in the thinly-peopled areas are also allowed to club together and build a school, which receives aid from the Government in the form of a yearly subsidy and grant of school material. During 1913 subsidy was paid to 660 schools in New South Wales. (iii.) An experiment on the part of New South Wales, the result of which was awaited with some interest, was the establishment in 1908 of a "travelling" school. A van was provided in which the teacher travelled, carrying with him a tent for himself and one to be used as a school, together with such books and apparatus as are required in a Primary School. So far very satisfactory results have been attained. (iv.) There are also railway camp schools in operation on the sites of extensive railway works. Regulations were framed in Tasmania during 1912, providing for the subsidising of private teachers at a rate not exceeding £5 per pupil in districts too remote or sparsely settled to warrant the establishment of an ordinary provisional school. The schools of this nature established in 1913 numbered 40, with an enrolment of 483 scholars. During the year the department also paid for the conveyance of 236 children to schools by boat, vehicle, or train.

6. **Evening Schools.**—Evening Public Schools have been in existence for many years in some of the States, but their progress has been uncertain. In New South Wales during 1913, only one Evening Primary School was in existence, but the 41 Evening Continuation Schools had an enrolment of 3614 and an average attendance of 1987. In Victoria also there was only one night school in operation for elementary work during the year. It is stated that future developments in evening instruction will be in the direction of continuation classes; and Western Australia has continuation classes in the chief centres. Up to the end of 1910 the evening schools in New South Wales aimed chiefly at giving primary instruction, but in October of that year Evening Continuation Schools of two types were established—(i.) Artisan Schools for boys learning trades; and (ii.) Commercial Schools for boys starting in business. In December, 1913, there were thirty schools in operation in the metropolitan district, and seventeen in the country districts, with an average attendance of 1987. Evening Continuation Schools have been established under regulation in South Australia, and are intended principally to help the working boy to improve his general education and to add to the store of knowledge most useful in his present work.

7. **Higher State Schools.**—(i.) In New South Wales public schools, which provided advanced courses of instruction for two years for pupils who had completed the primary course, were classed as *Superior Schools*. These were reorganised in 1913 as *Day Con-*

tinuation Schools, and divided into Superior Commercial Schools, Superior Junior Technical Schools, and Superior Domestic Schools for Girls. At the close of 1913 there were thirty-two schools in the Commercial group, twenty in the Junior Technical, and fifty-two in the Domestic group, with an enrolment of 2447, and average attendance of 2077 in the sixth and seventh classes. Provision has also been made for the more advanced education of children in country centres by the establishment of twenty-two District Schools. These schools are specially staffed, and undertake the work of preparing students for admission to the training colleges. There are also fifteen *High Schools* in the State. These had an enrolment in 1913 of 2171 boys and 1394 girls, with an average attendance of 1714 boys and 1117 girls. To meet the wishes of representatives of the registered Secondary Schools, the syllabus of the High Schools was amended in 1913, and now offers such a wide range of choice in the selection of subjects that there is no possibility of producing a merely stereotyped uniformity of study. Five "Intermediate" High Schools have been established to meet the growing demand for High School education in the metropolis, and others will be provided during the next few years in the city and in country centres. The average attendance at these schools in 1913 was 788. In connection with the development of secondary education in New South Wales, a liberal scheme of scholarships has been provided, 304 bursaries and 648 scholarships having been allotted as a result of the examination for the qualifying certificate. Under the provisions of the University Amendment Act of 1912, eighty-six exhibitions were awarded to successful students at the leaving certificate examination, and fifty-six of these were given to pupils attending the State Schools.

The Sydney Grammar School (not a "State" School in the ordinary acceptance of the term), which receives a State endowment of £1500 a year, had, in 1913, a quarterly enrolment of 636 pupils, and an average attendance of 566.

(ii.) In *Victoria*, action was taken in January, 1912, to give effect to the provisions of the Education Act of 1910, with regard to the decentralisation of the system of secondary education. Eighteen Higher Elementary Schools have been established, while the number of District High Schools was increased to twenty-two. With the exception of the Melbourne High School and the University School, the whole of the institutions are in country centres. The average attendance at the Higher Elementary Schools in 1913 was 1553, of whom 680 were girls; and at the District High Schools 2987, of whom 1444 were girls. The qualifications for admission to the High Schools and Higher Elementary Schools are that pupils shall not be less than 12 years of age, shall possess the qualifying certificate or its equivalent, and that their parents shall undertake that the children will remain at school for four years. For the first two years there is a common course for all pupils, thereafter replaced by four special courses:—(1) A preparatory professional course for pupils preparing to proceed to the University, to enter the teaching profession, or to gain a sound general education; (2) an agricultural course to be taken in agricultural High Schools; (3) commercial course; (4) a domestic arts course for girls. Parallel with these courses an industrial course has been developed for pupils who intend to enter upon some form of industrial occupation.

Scholarships granted by the Department are as follows:—(a) Fifty ordinary, tenable for four years at a District High School or approved Secondary non-State School; (b) Forty agricultural, mining, and veterinary, tenable for four years at a High School or Secondary School, with a view to proceeding to a diploma at the University; (c) Forty junior teacher course, tenable for two years, enabling holder to obtain free tuition at a State High School in the course prescribed for junior teachers. Various scholarships are also granted by the councils of State Agricultural High Schools. There are also twenty-five ordinary and twenty agricultural, mining, and veterinary exhibitions open for competition.

(iii.) Prior to the year 1912, *Queensland* did not possess any distinctly Secondary Schools under State control, but in February of that year High Schools were opened at Warwick, Gympie, Bundaberg, Mount Morgan, Mackay, and Charters Towers. Tuition

at these schools is free, but students must pass a qualifying entrance examination. In smaller centres where an average of not less than 25 qualified pupils can be obtained, secondary tuition is provided at existing State Schools, and this has been arranged for at Herberton, Childers, Gatton, Dalby, and Roma. The enrolment at High Schools in 1913 was 773, and the daily attendance 564. There are, moreover, ten Grammar Schools—six for boys and four for girls, each of which is subsidised by the State to the extent of £750 per annum, and in addition receives a payment of £250 per annum for providing district scholarships, as well as £12 12s. per annum on account of each open scholarship owner in attendance. These scholarships, fifty in number, are called district scholarships, and are granted to State School pupils in order of merit who were unsuccessful at the ordinary State scholarship examinations. In order to conserve the interests of children of poor parents, it is proposed to make all scholarships available at any State High School, Technical School, Grammar School, or approved Secondary School, and to grant allowances up to £30 per annum to students who must live away from home, and £12 to those who live at home. The scholarships to Secondary Schools awarded in 1913 numbered 368. Of these, 83 boys and 51 girls were granted the allowance at £12 per annum, and 43 boys and 18 girls received £30 per annum. Under this scheme the "district" scholarships will cease. There are also 20 University scholarships tenable for three years, and carrying an allowance of £52 per annum where the holder has to live away from home, and £26 per annum in cases where the holder can reside at home while taking the University lectures. The enrolment at the Grammar Schools in 1913 was 1269, and the average attendance 1134. Since the year 1909 these schools have been regularly examined by the Inspector-General of the Education Department.

(iv.) *South Australia.* Including the Adelaide High School, there were altogether twenty-four District High Schools open in South Australia in 1913, with an enrolment of 2469 students, and a teaching staff of 84. In addition to giving secondary education, these institutions form a valuable source from which the Department can draw a supply of young teachers. Under existing regulations provision is made for the following scholarships:—(i.) Eight public exhibitions open to boys and girls who have been *bona fide* residents of South Australia for two years prior to the competitive examination. The exhibitions are tenable for three years at an approved school or college, carry free tuition and books, and an allowance of £22 per annum when the holder lives away from home. (ii.) Forty exhibitions, tenable for three years at a High School, are open to competition by children under 13 years of age in attendance at State Primary Schools. (iii.) Eight senior exhibitions, worth £40 per annum, and four of the value of £20, are tenable at the Adelaide High School, and are open to pupils of any High School under State control. (iv.) Twelve Government bursaries, of which six are reserved for pupils of the High Schools. These are tenable at the University, and the holder receives £20 per annum and free tuition. (v.) The Government provides £180 per annum to assist students who are unable to attend the University during the day. Each studentship is limited to £10 for science students, and £7 for arts students.

(v.) *Western Australia.* A Modern School, designed to give a four years' course to pupils admitted at about the age of 13 years, was opened in Perth early in 1911. The first two years of the course are to a large extent common to all, but in the final two years specialisation is aimed at, in order to meet the needs of future University students, teachers, agriculturists, scientific and business men; and, in the case of girls, to give tuition in domestic economy to those desirous of it. At the end of 1913 there were 360 students. No fees are charged at the Modern School. It is proposed to open a High School in 1914 at Kalgoorlie, organised on similar lines. During 1909 the upper classes of schools in the largest centres of population were brought together into central schools, in order to secure more economical and effective teaching, and it is intended that these central institutions shall form the nucleus of future High Schools. Continuation classes were inaugurated in 1911, and were attended at 15 centres in 1913 by about 2900 pupils. The classes are intended to provide some measure of higher education to those who leave

school as soon as they reach the compulsory age of 14 years. Admission to these classes is free, but pupils must attend regularly three evenings a week. Evening Schools are held in various parts of the State, but the work carried on is mainly primary. Exhibitions and scholarships at present in force comprise ten University exhibitions valued at £50 each, tenable for three years at the University of Western Australia, seven senior exhibitions valued at £25 each tenable for one year, and 12 junior exhibitions, valued at £20 each, also tenable for two years.

(vi.) *Tasmania*. Up to the year 1912 the Department confined its efforts to the provision of primary education for the school children in Tasmania. In 1911, however, super-primary classes were formed in the larger schools, with an enrolment in 1911 of 200, and in 1912, of 400 pupils. It was recognised, however, that the previously existing scheme of scholarships and exhibitions was inadequate to meet the demands for higher education. High schools were therefore opened in January, 1913, at Hobart and Launceston, with an enrolment of 150 and 110 pupils respectively. These will cater for five classes of pupils—(i.) Those who desire to become teachers; (ii.) University students; (iii.) Commercial; (iv.) Mechanics; (v.) Home duties (girls). It is proposed to grant a leaving certificate at the end of a four years' course. At the present time the State provides free High School instruction for pupils capable of passing the necessary entrance examination, and under the Scholarship Act of 1907 grants scholarships of the annual value of £15, tenable for three years, an additional payment of £25 being made in cases where the pupil does not reside at home. These scholarships are not tenable at the High Schools. There are also five exhibitions awarded by the University on the result of the junior examination. These are valued at £20 each, and are tenable for three years at approved schools. It is proposed to replace the scholarships by a liberal scheme of bursaries.

8. Agricultural Training in State Schools.—The question of agricultural training in ordinary schools has received considerable attention in *New South Wales*. In 1905 a teacher of school agriculture was appointed to visit schools and districts for the purpose of giving instruction to teachers and scholars in the subject, the officer selected possessing the dual qualifications of a thorough acquaintance with agricultural work and school methods. The Education Department makes grants of seeds of various kinds to the schools having gardens, and in some instances has installed windmill plants to provide an adequate water supply. Under the direction of a capable head master, a college has also been opened at Hurlstone, near Sydney, at which practical lessons are given in elementary agriculture, and the institution also serves as a stepping-stone to the Hawkesbury Agricultural College. Scholarships are available to students of the Hurlstone Agricultural High School as it is now called, and these scholarships entitle the holder to a two years' free course at the Hawkesbury institution, with a grant of £1 10s. per annum for text books. The Department has also organised Rural Camp Schools for the purpose of giving teachers and scholars first hand knowledge of country industries. Schools of this nature were held in 1913 at Richmond and Orange, the total attendances for the year being 1118 boys, and 91 masters.

The subject of Agricultural Colleges and Experimental Farms is dealt with in the section relating to Agriculture. (See page 356.)

In *Victoria*, what are termed Agricultural High Schools have been established at Ballarat, Colac, Leongatha, Mansfield, Mildura, Sale, Shepparton, Wangaratta, Warragul, and Warrnambool. Pupils must be at least fourteen years of age, and have passed beyond the curriculum of the elementary school, or else be able to afford satisfactory proof that they are qualified to profit by the instruction offered. The schools are practically secondary schools with an agricultural bias, and form a link between the rural school and the agricultural college. They are also used as a preliminary stage in the education of boys and girls who wish to become teachers and eventually graduate in the State Training College and the University. At some of the schools short courses in agriculture have been instituted for farmers' sons who have left school. A local council.

is appointed for each school, and exercises a general oversight over its operations. The experimental plots at these schools have aroused much interest among the farmers from the surrounding districts. A Supervisor of Agriculture reports and gives advice on the teaching of agriculture in the State Schools. A fair number of teachers have gained diplomas in agriculture, and will be in a position to give practical instruction at the High Schools. The elementary principles of agriculture are now taught in about 700 State Schools. A Horticultural Society has been established in connection with State Schools, and has now 650 schools in affiliation.

Although *Queensland* possesses an Agricultural College and several experimental farms, there is no agricultural institution directly connected with the Education Department. The Government, however, provides a small grant to encourage the study of agriculture, horticulture, and kindred subjects in the State Schools, while a departmental teacher of agriculture visits the schools and gives assistance in agricultural, horticultural, and nature study work. Some excellent experimental work has been carried out at a few of the schools, while gardens have been established wherever circumstances permitted. Short courses of instruction for teachers have been instituted at the Gatton College. A large number of teachers have gained a practical knowledge of milk and cream testing, and the subject is now added to the programme of instruction in several of the dairying districts.

In *South Australia* the Public Schools' Floral and Industrial Society, founded in 1880, holds annual exhibitions of school work from all parts of the State. In addition, it has for some years undertaken the distribution of flower seeds among school children at a very cheap rate, and has thus fostered the love of horticulture with remarkable success. A special instructor has been appointed to give assistance to teachers desirous of making their school gardens aid in nature study work.

In *Western Australia* an advisory teacher of nature study visits the schools and gives advice in regard to proper methods in horticulture and experimental agricultural work. The number and usefulness of the gardens and experimental plots attached to State Schools shew marked improvement each year. It is proposed to open a farm school on the Narrogin State Farm early in 1914.

9. **Teachers in State Schools.**—The distribution of the teaching staff in the State Schools during the year 1913, including teachers of needlework, was as follows:—

TEACHING STAFF IN STATE SCHOOLS, 1913.
(COMMONWEALTH.)

State.	Principal Teachers.		Assistants.		Pupil or Junior Teachers.		Sewing Mis-tresses.	Total.		
	Males.	Fem.	Males.	Fem.	Males.	Fem.		Males.	Fem.	Total.
New South Wales	2,119	450	1,362	2,518	9	169	105	3,490	3,242	6,732
Victoria ...	1,572	756	450	1,316	349	1,291	441	2,371	3,804	6,175
Queensland ...	780	559	337	817	320	435	...	1,437	1,809	3,246
South Australia ...	372	431	90	472	59	205	136	521	1,242	1,763
Western Australia ...	318	235	123	497	11	119	59	452	910	1,362
Tasmania ...	179	245	59	210	35	169	2	273	626	899
Northern Territ'y	2	4	...	...	...	...	...	2	4	6
Commonwealth	5,342	2,680	2,421	5,830	783	2,384	743	8,516	11,637	20,183

It will be observed that there is a fairly large number of junior teachers, or pupil teachers, as they are called in some of the States. The pupil teachers will, however, in time disappear, and their places will be filled by young people who have undergone a course of training in schools specially provided for the purpose. Allusion to the methods of training will be found in the next paragraph.

10. **Training Colleges.**—The development of the training systems of the various States has been alluded to at some length in earlier issues of the Year Book. The present position is as follows:—

(i.) *New South Wales.* During 1913, the total number of students in the Blackfriars Training College was 314, women students numbering 211. A branch institution was opened early in 1911 at Hereford House for the training of candidates for the position of teacher or assistant at small country schools, and this was attended in 1913 by 247 students. The total number qualified for entrance to the teaching service in 1913 was 391. Several of the larger metropolitan schools are used as practice schools for giving training college students opportunity to acquire practical skill in teaching. At the College a complete set of Montessori apparatus has been prepared for demonstration work on the Montessori principles, and one of the College staff was recently sent to Italy in order to gain first-hand knowledge of the possibilities of the scheme. Opportunities are also afforded to other members of the teaching staff to visit foreign countries on study leave. The Principal of the Training College is also Professor of Education at the Sydney University. Towards the close of the year a commencement was made with the erection of new Teachers' College within the University grounds. Up to the year 1913 the limits of accommodation at the Teachers' College were responsible for the employment of a number of untrained junior assistants, but it is now provided that no teacher enters the Service without at least six months' professional training.

(ii.) *Victoria.* Candidate teachers in this State are trained in the District High Schools or Agricultural High Schools, the period of probation being supplemented by a course of training for two years in the Senior Training College at Melbourne. A "short course" of training was introduced in 1913 for students who have passed the junior public or an equivalent examination. The course lasts for six months, about half the time being spent at lectures and the rest at practice in teaching. The present Training College dates back to 1874, but during the retrenchment period, viz., from 1893 to 1900, it was closed. The institution was reopened in February, 1900, with an enrolment of fifty-seven students. By the 30th June, 1913, the number had increased to 111. The College lectures are also attended by considerable numbers of private students qualifying for certificates as Infant, Kindergarten or Primary teachers. A Training College Hostel has been established and a Correspondence class formed for country teachers desirous of qualifying for the Infant Teachers' Certificate. The students at the Hostel receive training in domestic economy. Five city and four country practising schools are attached to the Training College. The University High School, with an average attendance of 171 in 1913, gives teaching practice for secondary students taking the diploma course at the Melbourne University. A remodelled system of training will come into force in 1914, providing, amongst other things, for the alteration of the name "Training College" to "Teachers' College," and for the classification of students in three groups, *i.e.*, those training for secondary teachers' certificate, for primary teachers, and for infant teachers.

(iii.) *Queensland.* In connection with the newly-established Teachers' Training College in Brisbane, the following scheme has been evolved:—Twenty-five special Teacher Scholarships to the University, each with a currency of two years, are to be awarded annually. Living allowances at the rate of £52 per annum and £26 per annum respectively are provided, the former being paid to students living away from home. The University is to provide an Education group of subjects, including Logic, Psychology, and Education. Ten of the scholarships may be carried on for a third year, and five for a fourth year. Practical training is entrusted to a Training Master appointed by the Department. Those who attend the two years' course will be appointed to the Primary Schools, and the graduates from the three and four years' course will be available for High Schools and Secondary Schools. Short courses of training have been instituted for teachers to take charge of small schools, and arrangements have been made to allow an approved number of teachers already in charge of such small schools to obtain the benefit of the training. In the meantime, young people of both sexes are admitted to the service as pupil-teachers at the age of fourteen years, and receive training from the principals of the schools to which they are appointed. The schools for infants.

at Kangaroo Point and Rockhampton have been specially staffed and equipped for training Kindergarten teachers, and Kindergarten methods have been introduced into most of the larger schools. Teachers of small schools are also greatly helped by the inspectors' practical and theoretical instruction in the various districts.

(iv.) *South Australia.* During the year 1910 the system of training in force in South Australia was remodelled and improved. Prior to this year students had devoted themselves chiefly to academic studies, but in 1910 provision was made for increased attention to the theory and practice of teaching. District courses of training were established to prepare teachers for work in primary and infant schools, and an advanced course was outlined for those who will become High School teachers. Each of these courses extends over a year. Students in the primary course who shew special ability may be granted a second year's training. The special course for Secondary Schools will give students an opportunity of obtaining the Diploma of Education. Provision has also been made for a six months' course of training for teachers of provincial schools. There were 49 students in the Training College in 1913. At the Adelaide High School there were 96 students training for teachers at the end of 1913. Practice in teaching is gained by the student teachers at the Observation School, which also provides training for teachers qualifying for appointment to provisional schools.

(v.) *Western Australia.* A Training College for teachers was opened at Claremont in 1902. The original building provided accommodation for sixty students, but extensions were opened in 1908, and the number in training in 1913 was 115. Two classes of training are provided for—the full course, lasting two years, and a special course of six months. The latter is intended for teachers of small schools in country districts, and the trainees are drawn partly from those already acting as teachers in these schools and partly from outside applicants who pass the necessary qualifying examination. Special practising schools have been established for the proper training in teaching and managing the smaller country schools. Three classes of students are admitted to the full course—(i.) from State or private secondary schools; (ii.) monitors from departmental schools; (iii.) ordinary teachers from the departmental schools. The standard of education required on entering is the school-leaving or matriculation certificate, but a special examination is held for candidates possessing neither. The course is both academic and practical, the former being co-ordinated with the University. As a help in the practical work there is an adjunct school attached to the College, and six practising schools, two of which are for infants only.

(vi.) *Tasmania.* In this State the scheme for training teachers has recently been remodelled with a view to increased efficiency, and the new provisions will come into operation in 1914. Prior to entering the Training College, students will be required to attend a High School for four years. After obtaining the leaving certificate, the candidates will be drafted to selected schools to serve as junior teachers for a year, in order to gain such knowledge as will enable them to more fully appreciate the professional training at the College in the following year. Trainees will attend at the University for instruction in the higher branches of certain subjects, and in some cases will be given a second and third year to enable them to qualify for Arts or Science degrees. During the year 1913 there were 100 students in attendance at the Training College. There is a Practising School attached to the College, and a Model Small School has been established for the purpose of training students who wish to take charge of small country schools. Periodic meetings of teachers and inspectors have proved helpful in fostering a spirit of activity. The principal of the Training College is also Lecturer in Education at the University. During the year 1913 a Summer School for teachers was held at Hobart.

11. **School Savings Banks.**—Returns shew that these institutions are in existence in three States. In New South Wales, there were 727 banks at the end of 1913, the deposits amounting to £29,247, and withdrawals to £29,501. Since the establishment of the banks in 1887, deposits totalled £465,231, and withdrawals £453,366. Of the latter

sum £108,285 was placed to the children's accounts in Savings Banks. In South Australia, 311 schools had 12,954 depositors, with £5604 to their credit; and in Western Australia, there were 289 school banks, with 15,980 depositors and £20,330 to their credit.

d2. **Expenditure on State Schools.**—The net expenditure on State education during 1901 and for the five years ended 1913 is shewn below. The figures do not include expenditure on buildings, which is shewn separately in a subsequent table.

EXPENDITURE ON MAINTENANCE, STATE SCHOOLS, 1901 and 1909-13.
(COMMONWEALTH.)

Year.	N.S.W.	Victoria.	Qld.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	C'wealth.
	£	£	£	£	£	£	£	£
1901 ...	623,734	656,907	256,245	152,006	89,694	37,710	...	1,816,296
1909 ...	940,534	726,020	309,704	164,863	166,103	73,532	...	2,380,756
1910 ...	979,775	788,246	323,372	177,827	172,470	74,907	...	2,516,597
1911 ...	1,048,584	834,276	351,942	198,979	187,301	84,317	629	2,706,028
1912 ...	1,235,410	893,649	393,543	217,874	220,780	86,500	674	3,098,430
1913 ...	1,318,326	975,977	432,751	243,094	258,171	91,513	1,942	3,321,774

The expenditure per head of average attendance for each of the years given above will be found in the succeeding table. As the figures shew, Western Australia has the highest average, followed by New South Wales and Victoria, the lowest rate being in Tasmania. The increase in the number of small schools was chiefly responsible for the growth of expenditure in the Western State in 1912, the expenditure on primary education alone shewing an increase of £23,000 as compared with the preceding year.

COST PER HEAD OF AVERAGE ATTENDANCE, STATE SCHOOLS, 1901 and 1909-13.
(COMMONWEALTH.)

Year.	N.S.W.	Victoria.	Qld.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	C'with.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1901	4 0 10	4 7 0	3 12 9	3 9 5	5 9 3	2 12 11	...	4 0 8
1909	5 17 6	4 19 5	4 8 0	4 6 2	6 4 6	4 4 7	...	5 3 11
1910	6 4 5	5 8 0	4 13 2	4 4 9	6 5 8	4 3 4	...	5 10 5
1911	6 10 5	5 13 11	5 0 5	5 12 10	6 7 2	4 13 0	10 9 7	5 16 8
1912	7 10 4	5 12 1	5 1 9	5 6 8	6 14 0	4 8 5	9 9 10	6 4 11
1913	7 8 1	6 4 2	5 8 3	5 12 3	7 2 5	4 6 5	28 1 1	6 8 9

Expenditure on school buildings in each of the years quoted was as follows:—

EXPENDITURE ON STATE SCHOOL BUILDINGS, 1901 and 1909-13.
(COMMONWEALTH.)

Year.	N.S.W.	Victoria.	Ql.	S. Aust.	W. Aust.	Tasmania	Northern Territory.	C'wealth.
	£	£	£	£	£	£	£	£
1901 ...	57,663	36,040	33,421	13,656	49,073	7,762	...	197,615
1909 ...	149,767	162,932	57,349	31,512	31,099	8,442	...	441,101
1910 ...	191,188	118,566	50,668	44,025	47,637	16,957	...	469,031
1911 ...	176,194	117,048	53,953	35,581	58,406	16,548	...	457,730
1912 ...	287,522	167,657	67,637	40,855	73,920	9,423	2,117	649,131
1913 ...	347,183	158,028	77,715	59,385	71,913	16,456	791	731,471

The net total cost and the net cost per scholar in average attendance during the year 1913 were as follows:—

NET TOTAL COST, STATE SCHOOL EDUCATION, 1913.
(COMMONWEALTH.)

Item.	N.S.W.	Vic.	Q'land.	S. Aust.	W. A.	Tas.	N. T.	C'wealth.
Net cost of education, including buildings	£ 1,665,509	£ 1,134,005	£ 510,466	£ 302,479	£ 330,084	£ 107,969	£ 2,733	£ 4,053,245
Per scholar in average attendance	£9 7/0	£7 4/4	£6 7/8	£6 17/7	£9 2/0	£5 2/0	£40 3/11	£7 17/1

The average for the Commonwealth in 1901 was £4 9s. 3d. per scholar in average attendance.

§ 3. Private Schools.*

1. **School Teachers, etc., in 1913.**—The following table shows the number of Private Schools, together with the teachers engaged therein, and the enrolment and average attendance in 1913:—

PRIVATE SCHOOLS, 1913.
(COMMONWEALTH.)

State.	Schools.	Teachers.	Enrolment.	Average Attendance.
New South Wales	733	3,593	64,591	54,305
Victoria	519	1,846	49,549	40,000
Queensland	153	795	18,092	15,518
South Australia	164	638	12,362	9,281
Western Australia	119	459	10,335	9,101
Tasmania	88	320	6,275	4,434
Northern Territory	1	2	65	40
Commonwealth	1,777	7,653	161,269	132,679

The totals for New South Wales include returns from the Sydney Grammar School, which receives a yearly State subsidy of £1500, and which, in 1913, had an enrolment of 636, and an average attendance of 566.

It is stated that the decrease in the Victorian figures is due to the closing of certain of the smaller inefficient schools. Some of the Secondary Schools in the country towns have also closed, and their pupils and a portion of the teaching staff have been absorbed by the State Higher Elementary or District Schools.

The figures for Queensland include the returns from Grammar Schools, of which there are ten—six for boys and four for girls. These schools are governed by boards of trustees, partly nominated by Government, and partly by the subscribers to the funds. The trustees make regulations regarding the fees of scholars, the salaries of teachers, and generally for the management of the schools. Each school is endowed by the Government at the rate of £750 per annum, together with an additional £250 to provide district scholarships, of which five were allotted to each school from 1st January, 1911. During the year all the grammar schools were inspected by the departmental Inspector-General.

2. **Growth of Private Schools.**—The enrolment and average attendance at Private Schools during 1891, 1901 and in each year of the period 1907 to 1913 are as follows:—

* Private Schools include all schools not wholly under State control. The term "private," though popularly applied, is, of course, a misnomer.

ENROLMENT AND ATTENDANCE AT PRIVATE SCHOOLS, 1891 to 1913.

(COMMONWEALTH.)

Year	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891 ...	124,485	99,588	1910 ...	158,694	129,872
1901 ...	148,659	120,742	1911 ...	160,794	132,588
1907 ...	152,037	122,878	1912 ...	164,085	133,940
1908 ...	152,399	125,530	1913 ...	161,204	132,679
1909 ...	164,428	127,069			

In view of the growth in population during the period covered by the table, the increase in enrolment and attendance does not afford room for much satisfaction. The returns will no doubt in future be to some extent adversely affected by the development of the Higher State Schools alluded to in a preceding paragraph.

3. Registration of Private Schools.—Until recent years the various State Governments had comparatively little control over privately conducted Schools. With the advance of modern educational thought the position is improving, but still leaves much to be desired. It is evident that without a thorough system of registration there will always be a difficulty in regard to enforcing the compulsory clauses of the various Education Acts. Moreover, advanced educational thought demands complete supervision, not only of curricula, but of all matters pertaining to school hygiene.

In New South Wales, under the provisions of the Bursary Endowment Act of 1912, 13 non-State Schools were inspected by the Departmental Inspector of Secondary Education, making a total of 50 registered schools. It is pointed out by the inspector that the schools obtaining registration under this Act will gain an advantage over non-registered schools which will tend to increase their yearly capital value.

In Victoria, up to the year 1905, no attempt had been made to bring Private Schools under general administrative control, but the Registration of Teachers and Schools Act of 1906, and the Education Act of 1910, established a registration scheme under a special committee. At present, the committee consists of nine members of the Council of Education. Section 60 of the Act of 1910 also empowers the Minister of Education to authorise the inspection of any school (other than a State School) in order to ascertain whether the instruction given is satisfactory. The inspector of registered schools has on several occasions pointed out that there is a fair number of institutions which are very unsatisfactory, both as regards buildings and quality of instruction given therein.

In Queensland, with the exception of the Grammar Schools, which are now examined annually, there is practically no control over the Private Schools, beyond the fact that they may submit themselves to inspection if so desired, and there is apparently no provision in South Australia for any Government supervision over Private School affairs.

In Western Australia, non-Government schools must be declared efficient by the Education Department if attendance at them is to be recognised as fulfilling the requirements of the law, and the school registers must be open to the inspection of the compulsory officers of the Department.

In Tasmania the Education Act requires the teachers of other than State Schools "to furnish during January of each year returns shewing attendances at such schools." Despite the fact that penalties are prescribed for non-compliance with the law, nevertheless many teachers neglect to return the forms sent out. Provision has been made for registration of private teachers and schools very much on the lines adopted in Victoria. The Act declares that all persons who were employed in a *bond fide* manner for at least three months before 25th October, 1906, were entitled to be registered as teachers without submitting proof of professional qualifications. No person can be registered as a private teacher since July, 1907, unless the Board is satisfied as to his fitness for the work.

§ 4. Free Kindergartens.

The following information regarding Free Kindergartens in the Commonwealth has been compiled from particulars supplied by the principals of the chief institutions in each State, except in the cases of Victoria and Western Australia, the details for the former being furnished by the Inspector of Registered Schools, and for the latter by the Director of Education.

FREE KINDERGARTENS IN THE COMMONWEALTH, 1913.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales (Sydney) ...	8	410	10	38	12
(Newcastle) ...	3	95	4	6	6
Victoria (Melbourne) ...	20	850	40	30	200
(Ballarat) ...	1	38	2	...	1
Queensland (Brisbane) ...	5	126	5	13	11
(Clermont) ...	1	35	1	1	...
South Australia (Adelaide) ...	7	245	10	16	1
Western Australia (Perth) ...	2	77	2	10	...
Tasmania (Hobart) ...	1	35	1	4	3
(Launceston) ...	1	40	2	3	3
Total ...	49	1,951	77	121	237

There is no separate training institution in Perth, but at each of the two Kindergartens there are five students in training. The Ballarat institution is also visited by State School teachers with a view to gaining practical acquaintance with Kindergarten methods.

It must, of course, be distinctly understood that the information given above refers to institutions under private Kindergarten unions or associations, and is exclusive of institutions controlled by the Education Departments of the various States.

§ 5. Universities.

1. Origin and Development.—The history of the foundation and progress of the four then existing Australian Universities was traced at some length in Year Books I. and II. In the present volume space will permit of only a very brief reference to the subject.

(i.) *University of Sydney.* The Act of Incorporation of the University of Sydney received Royal assent on the 1st October, 1850, and the first Senate was appointed on the 24th December of that year. The first matriculation examination was held in October, 1852, when twenty-four candidates passed the required test, and the formal inauguration ceremony took place on the 11th October of the same year. A Royal Charter was granted to the University on the 27th February, 1858. Women students were admitted in 1881. The passing of the University (Amendment) Act of 1912 marks an important epoch in the development of the educational system of New South Wales. The Act aims at placing the University in a more effective position as the culminating point in a thoroughly co-ordinated system of State education, and it is claimed that the passing of this measure makes the educational system—from the Primary Schools through the Secondary Schools to the Technical Colleges or to the University—form a progressive and continuous whole. Under the new Act the constitution of the Senate was radically changed, and this body now consists of—four Fellows appointed by the Governor, one

electd by members of the Legislative Council, one elected by members of the Legislative Assembly, five representatives of the University teaching staff, ten elected by graduates of the University, and three elected by the aforesaid Fellows. The professorial representatives hold office for two years, and the other Fellows for five years. In addition, it was provided that in view of their distinguished services, the late Chancellor, Sir Normand MacLaurin, and the Vice-Chancellor, Judge Backhouse, should each during his life be a Fellow in addition to the ten Fellows elected by the graduates. The second part of the Act contains a feature of outstanding importance, in that it provides for the allotment of exhibitions in the proportion of 1 for every 500 of the population of New South Wales between the ages of 17 and 20, or in such other ratio as may be determined by Parliament. These exhibitions, which carry exemption from all fees, are not restricted to any particular faculty in the University, and are principally allotted in order of merit as shewn by examinations for leaving certificates at the State Schools. Pupils of registered Secondary Private Schools are also eligible for leaving certificates on the same conditions as those of the State Schools. To gain a leaving certificate a candidate must have satisfactorily completed an approved four years' course of study. Five per cent. of the total number of exhibitions allotted in any year are available for successful candidates at the written examination, even though they be ineligible for a leaving certificate. For the year 1913 the statutory endowment to the University was £14,966. At the inception of the University there were only three professorships. The present staff consists of twenty-three professors, including the Director of Military Science, nine assistant professors, and ninety-eight lecturers and demonstrators. There are, in addition, four honorary lecturers, various honorary demonstrators, as well as various miscellaneous assistants in laboratories and three curators of museums.

(ii.) *University of Melbourne.* This institution was established by Act of Parliament assented to on the 22nd January, 1853, and its first Council was appointed on the 11th April of that year. The foundation stone of the main building was laid on the 3rd July, 1854, and the University was formally inaugurated on the 13th April, 1855. By Royal Letters Patent, issued in 1859, its degrees are, like those of the Sydney institution, declared of equal status with those of any other University in the British Empire. Women students attended lectures for the first time in 1881. The University, which began in 1855 with Schools of Arts and Laws, has now a staff of eighteen professors, sixty-four lecturers and demonstrators, as well as sixty-five miscellaneous assistants. The Conservatorium of Music has a staff numbering twenty-five.

(iii.) *University of Adelaide.* This University was established by Act of Parliament in 1874. Its origin and progress was largely due to the munificence of the late Sir Walter Watson Hughes and Sir Thomas Elder, G.C.M.G., the total gifts of the latter amounting to over £100,000. The academical work of the institution was commenced in March, 1876, when eight matriculated and fifty-two non-graduating students attended lectures. The foundation stone of the University buildings was laid on the 30th July, 1879, and the buildings were opened in April, 1882. In 1881, by Royal Letters Patent, the degrees granted by the institution were recognised as of equal distinction with those of any University in the British Empire. The Elder Conservatorium of Music was opened in 1898. Power was given by Act of Parliament in 1880 to grant degrees to women. At first there were only four professorships in the University, whereas the present staff consists of eleven professors, thirty-one lecturers and seven assistant lecturers, exclusive of the staff at the Conservatorium, which numbers twelve.

(iv.) *University of Tasmania.* The Act to establish the University of Tasmania (Hobart) was assented to on the 5th of December, 1889. At the present time, the institution, which is small but efficient, possesses a staff of five professors, six independent lecturers, and three demonstrators. Under Statute dated 13th April, 1905, the Zeehan School of Mines and Metallurgy was affiliated to the University.

(v.) *University of Queensland.* The Act to establish the University of Queensland was passed in 1909, and the first Senate was appointed on the 14th April, 1910. The University was opened on the 14th March, 1911, when 60 students were matriculated. Provision has been made for a Correspondence Study department in connection with the institution, and at the request of the Brisbane branch of the Workers' Educational Association, weekly lectures are given in History and Economics. At the present time there are four professors, *i.e.*, one each of classics, chemistry, engineering, and for mathematics and physics, with a liberal complement of lecturers and demonstrators. The establishment of University extension lectures is under consideration.

(vi.) *University of Western Australia.* The University Commission in this State has recommended the establishment of a University somewhat on the lines of those in the eastern States, but with such amendments as would bring it as far as possible into accord with the most modern requirements. The Act establishing a University was passed on the 18th February, 1911. In addition to lectureships, the institution was opened with six professorships—modern literature and history, mathematics and physics, chemistry, engineering and mining, geology, and a chair in agriculture endowed by the generosity of Sir Winthrop Hackett. The institution was opened in March, 1913.

2. **Teachers and Students of Universities.**—The following table shews the number of professors and lecturers and the students in attendance at each of the Commonwealth Universities during the year 1913:—

UNIVERSITIES.—TEACHERS AND STUDENTS, 1913.

University.	Professors.	Lecturers.	Students attending Lectures		
			Matriculated.	Non-matriculated.	Total.
Sydney	32	102	1,167	478	1,645
Melbourne	18	64	...	...	1,256*
Adelaide	11	38	415	305	720†
Tasmania (Hobart) ...	5	6	92	70	162
Queensland (Brisbane) ‡	4	19	198	9	207
West. Australia (Perth)	8	4	118	64	182

* Exclusive of 86 music students.

† Exclusive of 318 music students.

‡ Opened in 1911.

3. **University Revenues.**—The income of the Universities from all sources during the year 1913 was as follows:—

UNIVERSITIES.—REVENUE, 1913.

University.	Government Grants.	Fees.	Other.	Total.
	£	£	£	£
Sydney	44,966	20,637	25,353	90,956
Melbourne	33,648	33,409	9,754	76,811
Adelaide	11,803	11,853	5,284	28,940
Tasmania (Hobart) ...	5,750	1,470	1,416	8,636
Queensland (Brisbane)	13,000	2,000	3,400	18,400
Western Australia (Perth)	13,500	...	1,321	14,821

The column "Other" includes the receipts from private foundations. The extent to which the Universities have benefited by private munificence will be apparent from the following table:—

PRINCIPAL PRIVATE BENEFACTIONS TO AUSTRALIAN UNIVERSITIES.

University of Sydney.		University of Melbourne.		University of Adelaide.	
Donor.	Amount.	Donor.	Amount.	Donor.	Amount.
	£		£		£
J. H. Challis ...	250,750	Sir Samuel Wilson	30,000	Sir Thos. Elder ...	98,760
Sir P. N. Russell ...	100,000	James Stewart ...	25,624	Sir W. Hughes ...	20,000
Thos. Fisher ...	30,000	Hon. Francis Ormond	20,000	Hon. J. H. Angas	10,000
Edwin Dalton ...	8,000	John Hastie ...	19,140	R. Barr Smith ...	10,150
Hugh Dixon ...	7,050	Robert Dixon ...	10,837	Other donations ...	16,230
Hon. Sir W. Macleay	6,000	John Dixon Wy-			
Mrs. Hovell ...	6,000	selaskie ...	8,400		
Thos. Walker ...	6,200	David Kay ...	5,764		
Other donations ...	53,714	Henry Dwight ...	5,000		
		Wm. Thos. Mollison	5,000		
		Other donations ...	49,889		
Total	£ 467,714	Total	£ 179,654	Total	155,140

In addition to the sum of £6000 shewn above, the Hon. Sir W. Macleay also presented the Museum of Natural History to the University.

The credit balances of some of the above endowments now amount to very considerable sums. For example, on the 31st December, 1913, the Challis Fund amounted to nearly £310,000, and the Fisher bequest to over £40,000. The cash balance at the end of 1913 on account of all private foundations to Sydney University stood at £547,240. In the case of Melbourne University the Stewart fund on the 31st December, 1913, stood at £30,401, the Hastie at £19,266, the Dixon fund at £12,638, etc.

In addition to the above there were various other bequests to Sydney University—*e.g.*, collection of Egyptian antiquities, etc., by Sir Charles Nicholson, and Natural History collection by Mr. Geo. Masters, while the building for the Natural History Museum was given by Sir W. Macleay. Numerous prizes and scholarships have also been given to the various colleges. In Melbourne, the Hon. Francis Ormond's benefactions to Ormond College amounted to about £108,000. Private benefactions to the University of Tasmania and the newly-established University of Queensland amount to £3105 and £6841 respectively.

4. University Extension.—These lectures were instituted at Sydney University in 1886, but under a statute of the Senate, approved of in 1892, a Board was appointed, which was empowered from time to time to recommend to the Senate the names of suitable persons for giving courses of lectures, and to hold examinations in the subjects of the lectures. The Board receives and considers applications from country centres, and makes provision for engaging lecturers and managing the entire business connected with the various courses. The project has only met with fair success, no lectures having been given in some years, but lately there appears to be an awakening of interest in the matter. The Board also arranged for courses of lectures in Queensland, Victoria, and Western Australia. In 1913 the average attendance at extension lectures in New South Wales was 122.

University extension lectures in Victoria date from the year 1891, when a Board was appointed by the Melbourne University for the purpose of appointing lecturers and holding classes and examinations at such places and in such subjects as it might think fit. Interest in University extension has varied in Victoria, the attendance at the various centres numbering about 3700 in 1913.

The Adelaide University has also instituted short courses of extension lectures in Arts and Science, to which students are admitted on payment of a nominal fee. Public intimation of these lectures is made from time to time during the session. For 1914 a

course of nine lectures was provided. The University of Tasmania provides for courses of lectures at Launceston, which are delivered weekly by members of the University teaching staff.

As pointed out previously, a correspondence study department has been inaugurated in connection with the University of Queensland in order to overcome, as far as possible, the difficulties of students who desire to benefit by University teaching, but who for various reasons are unable to attend the lectures. At present the work of this department is confined to the Arts course.

(v.) *Workmen's Tutorial Classes.* Chiefly as the result of a visit to Australia in 1913 by Mr. Mansbridge, of the Workers' Educational Association of Britain, a movement has been inaugurated having for its object the bringing of the University into closer relationship with the masses of the people. In New South Wales a Workers' Educational Association has been formed, and already tutorial classes have been started in Economics. The University Council in Victoria has formulated a scheme, and it is proposed to ask for a State grant of £2500, of which £1250 is to be expended on tutorial classes. In Queensland, classes have been formed at Brisbane and Ipswich, and the movement is extending in the other States.

§ 6. Technical Education.

1. **General.**—Although provision has been made in some of the States in respect to many necessary branches of technical education, the total provision made would imply that this branch of education has not been regarded as of great importance. As will be seen later on, the expenditure on technical education for the whole of Australasia is comparatively insignificant. The question of apprenticeship is dealt with in the sections dealing with "Manufacturing Industries and Labour and Industrial Statistics."

2. **New South Wales.**—The present organisation of technical education in this State dates from the year 1883, when a Technical Education Board was appointed as a result of suggestions made at the Technological Conference held in 1879. This Board continued its functions till November, 1889, when it was dissolved, and the work has thenceforward been carried on as a branch of the Public Instruction Department. The chief centre of activity is, of course, in Sydney, where the Technical College and Technological Museum are situated, the college having been opened for the reception of students early in 1892. Colleges were also erected in some of the chief country towns—at Maitland in 1890; Newcastle 1896; Bathurst 1898; Broken Hill 1898; Albury 1899; and Goulburn 1902. In other centres classes were established in various subjects whenever the prospects were sufficiently encouraging. Up to the year 1912 the provision for technical education is stated to have partaken more or less of the nature of successive accretions on the original humble beginnings, rather than to have aimed at development in accordance with a definite plan. With the systematisation of the other branches of education, the necessity for more effective organisation of the technical side became imperative, and in 1913 a rearrangement was effected. Under the new conditions Trades Schools will supersede the branch Technical Colleges, with the exception of that at Newcastle. Entrance to the Trades Schools will be conditional on a student being actively engaged in the trade concerned during the day and possessing a certain degree of preparatory knowledge. The latter qualification is assured by the possession of a certificate from a Commercial Superior Junior Technical School or an Evening Continuation Junior Technical School. It is proposed to build new Trades Schools in several of the suburbs of Sydney, and to establish institutions in the country wherever circumstances demand. The co-operation of both employers and employees has been sought and obtained, and while at first there will be some diminution in the number attending the classes, this will be counterbalanced by increased efficiency. At the beginning of 1913 a conference was held between the education authorities and leading employers and employees with a view to deciding on a scheme of organisation of the system of technical education. Sub-conferences were held for each trade or group of trades. In view of the information received, the Director of Education submitted a scheme to the Minister, and the scheme

was approved at the end of November. Under the new plan the instruction will be given in two divisions—(1) Trade Courses; (2) Higher Technical Courses. Instruction in the Trade courses will be really continuation trade instruction, *i.e.*, supplementary to actual workshop practice under an employer. Attempts to train youths to be tradesmen in the College will be abandoned, and only those actually engaged as apprentices or journeymen will be admitted to the College classes. Entrance tests are prescribed so as to ensure that students admitted to the courses will possess sufficient preparatory knowledge to benefit by them, but journeymen desirous of improvement may join at any time. Advisory committees have been appointed for each trade or group of trades. The first two or three years' course of instruction will be given in the Trade Schools, and the last two or three years' at the Technical Colleges, of which there are two, one at Sydney, and one at Newcastle. The higher courses will embrace instruction in advanced trades work qualifying for the position of manager or foreman, but no attempt will be made to train for the professional standing. It is hoped, however, that the scheme will develop so that part of the graduates may proceed to the University. Admission to the higher courses will eventually be restricted to those who have either graduated in the Trade Schools of the Department, or who evidence possession of a similar standard of knowledge.

The table below gives some idea of the development of technical education in New South Wales:—

TECHNICAL EDUCATION, NEW SOUTH WALES, 1909-13.

Year.	Number of Classes.	Number of Enrolments.	Average Weekly Attendance.	Number of Lecturers and Teachers.	Fees Received.
					£
1909	864	21,242	12,265	292	15,475
1910	886	22,822	13,255	334	15,873
1911	875	23,621	15,074	329	16,395
1912	793	28,032	17,749	320	15,846
1913	532	16,193	12,214	286	13,760

The enrolments in 1912 were distributed as follows:—

Sydney College Classes	...	...	...	9,281
Suburban Classes	...	...	...	1,461
Country Classes	...	...	...	5,451
Total	...	...	...	16,193

At the beginning of 1913 the Sydney Technical High School and the Hurlstone Agricultural High School were removed from the control of the technical branch and placed under the inspector of Secondary Schools. References to the Agricultural Colleges will be found in the section dealing with Agriculture.

3. **Victoria.**—Technical instruction in mining has for many years received considerable attention in Victoria, the Ballarat School of Mines, which was established as far back as 1870, having achieved an Australasian reputation. Fine work was also done at the School of Mines in Bendigo, and later on excellent courses of training were evolved at the Working Men's College in Melbourne. The general scheme of instruction, however, lacked cohesion, and it was not until after the publication of the Report of the Royal Commission on Technical Education, which was appointed in 1899, that many defects were remedied. Prior to the passing of the Education Act of 1910, the Technical Schools were managed by local Councils, receiving grants from the Education Department. It is now proposed to place them directly under the control of the Department, and some of the smaller institutions have been transferred already, while the larger schools will be taken over as soon as the necessary arrangements can be made. It is hoped that the Agricultural and District High Schools will serve as an effective connecting link between the ordinary State Schools and the Technical Schools. At

present there are 22 Technical Schools receiving State aid, and of these 9 afford instruction in Science, Art, and Trade subjects; 4 in Art and Science; 3 in Art and Trade; while 4 confine their teaching to Art, and 2 to Trade subjects. The largest technical institution in Melbourne is the Working Men's College, founded in 1887. The College, in addition to giving instruction in a large number of technical subjects, is also a School of Mines. Six of the schools, viz., the Working Men's College, and the Schools of Mines at Ballarat, Bendigo, Bairnsdale, Maryborough and Stawell are classed as Certified Science Schools and are open to receive State School exhibitioners. There are at the present time six Junior Technical Schools in existence, with 600 students between the ages of 13 and 15 years receiving instruction in preparatory technical work.

TECHNICAL EDUCATION, VICTORIA, 1909-13.

Year.	No. of Subjects Taught.	No. of Enrolments.	Fees Received.
1909	85	6,612	£ 13,234
1910	88	7,107	13,631
1911	90	7,008	12,991
1912	101	7,923	11,664
1913	92	9,036	13,054

The average attendance for Victoria is not available, but the number of individual students enrolled per term was given as 4901 for 1913.

4. Queensland.—The control of Technical Education in Queensland was removed from the hands of the local Committee in 1905, and vested in the Education Department. At present the Director is assisted in his administration by a Superintendent, and an Inspector of Technical Colleges. During 1913 there were 16 colleges in operation—Bowen, Bundaberg, Cairns, Central, Charters Towers, Gympie, Herberton, Ipswich, Mackay, Maryborough, Mount Morgan, Rockhampton, Sandgate, Toowoomba, Townsville, Warwick, and branch classes of these colleges were held in forty-three centres. The colleges at Warwick, Brisbane and Mackay are under the direct control of the Department, while the remainder are managed by Committees under departmental supervision. The progress of technical education since 1909 is shewn in the following table:—

TECHNICAL EDUCATION, QUEENSLAND, 1909-13.

Year.	Number of Classes.	Enrolments.	Average Weekly Attendance.	Number of Teachers.	Fees Received.
1909	349	5,608	3,128	214	£ 8,605
1910	312	5,744	3,250	195	8,884
1911	381	7,089	5,567	219	10,349
1912	363	7,851	5,589	238	9,794
1913	353	7,958	6,009	247	11,069

Greater attention is being devoted to the development of trade classes, and the Technical College authorities have been assisted by the University Professors in the preparation of a properly organised system of Trade instruction. The Department now pays about £2000 per annum to the Technical Colleges for the instruction of selected State School pupils in approved subjects. Tuition by correspondence is given by the Central Technical School. It is believed that the raising of the school age to 14 years, coupled with the establishment of High Schools, will result in a more effective co-ordination between ordinary and technical education in the State.

5. South Australia.—A considerable amount of attention has been given to technical education in South Australia, particularly in connection with the mining industry. The School of Mines and Industries in Adelaide was founded in 1889. Individual students enrolled in 1913 numbered 1878. The number of distinct subjects taught

was 53. There are in addition Schools of Mines at Moonta, Port Pirie, Kapunda, and Gawler. A School of Design, Painting, and Technical Arts has been established in Adelaide, with branches at Port Adelaide and Gawler. The conditions connected with the country Technical Schools, viewed from the standpoint of the Department of Education, are not considered satisfactory. While the Government bears the bulk of the cost of maintenance, the Minister for Education is not consulted in regard to the organisation, curriculum, or staffing of the schools. Although good work has been accomplished, the system of control of Technical Schools by independent councils is declared by the Director of Education to be no longer suitable, and stress is laid on the necessity for co-ordinating technical effort under one central authority. The development since 1909 is shewn in the table hereunder:—

TECHNICAL EDUCATION, SOUTH AUSTRALIA, 1909-13.

Year.			Number of Classes.	Enrolments.	Average Weekly Attendance.	Number of Teachers.	Fees Received.
							£
1909	...	...	204	4,179	*	88	3,574
1910	...	...	199	4,646	*	83	3,537
1911	...	...	185	4,456	*	91	3,547
1912	...	...	201	4,760	3,445	95	3,526
1913	...	...	218	4,885	3,473	115	3,459

* Not available.

6. **Western Australia.**—A Technical School was established at Perth in 1900, and since its opening has progressed rapidly. Extensive additions to the buildings were made in 1909, and the remodelled institution was opened in 1910. There are branch institutions at Midland Junction, Fremantle, Claremont, Kalgoorlie, Boulder, and Geraldton. In addition, Continuation Classes are held at Perth, Fremantle, Midland Junction, Claremont, Kalgoorlie, Coolgardie, Boulder, Day Dawn, Northam, Albany, Bunbury, Geraldton, Pingelly, Gwalia, and Collie, while it is proposed to open classes at other centres as occasion demands. The schools are all under the control of the Education Department, the officer entrusted with their supervision being styled Director of Technical Education. The Continuation Classes remained a charge on the Technical Education vote to the end of June, 1913. The Director also supervises the School of Mines at Kalgoorlie, which is controlled by the Mines Department. Advanced work at present is taken only in Perth, Fremantle, Boulder, and in Kalgoorlie by the School of Mines, the other branches dealing almost entirely with preparatory work chiefly in Continuation Classes. At the Perth School the full course can now be taken for the B.Sc. degree of the University of Adelaide. It is hoped that in this way a nucleus will be formed for an efficient staff of Science teachers for the Education Department and the State University. From the beginning of 1914 no fees will be charged. Returns for the last five years are embodied in the table hereunder:—

TECHNICAL EDUCATION, WESTERN AUSTRALIA, 1909-13.

Year.			No. of Classes.	Enrolments.	No. of Teachers.	Fees Received.
						£
1909	...	...	146	1,574	83	2,854
1910	...	...	142	2,007	122	3,683
1911	...	...	230	4,595	157	3,332
1912	...	...	304	5,090	163	3,144
1913	...	...	237	5,702	234	3,786

The enrolments for 1913 comprised 2203 at Technical Schools and 3499 at Continuation Classes, the average attendance at the former being 1540, and at the latter 2915.

7. **Tasmania.**—In this State provision for technical education dates from the year 1888. At the present time the most important technical institution is the School of Mines and Metallurgy at Zeehan. Courses of instruction are given in metal mining and

in metallurgical chemistry and assaying, the diploma in metal mining entitling the holder to the Government certificate of competency as a mine manager. The institution is affiliated to the University of Tasmania. There are also three other schools under the control of the Education Department, each managed by a committee appointed by the Governor-in-Council. Tasmanian Technical Schools naturally devote their chief attention to mining and mineralogy. Statistics for the last five years are given as follows:—

TECHNICAL EDUCATION, TASMANIA, 1909-13.

Year.	No. of Classes.	Enrolments.	Average weekly Attendance.	No of Teachers.	Fees Received.
1909 ...	67	794	248	32	£ 647
1910 ...	49	614	267	33	681
1911 ...	54	833	295*	32	667
1912 ...	62	993	300*	36	768
1913 ...	76	1,013	787	41	918

* Estimated.

8. Attendance at Commonwealth Technical Schools.—The table hereunder shows the enrolment and attendance at Technical Schools and classes in the Commonwealth during 1913:—

ENROLMENT AND ATTENDANCE AT TECHNICAL SCHOOLS, 1913.

(COMMONWEALTH.)

State	Enrolment.	Average Attendance.
New South Wales ...	16,193	12,214
Victoria ...	9,036	†4,500
Queensland ...	7,958	6,009
South Australia ...	4,885	3,473
Western Australia ...	5,702	*
Tasmania ...	1,013	787

* Not available. † Estimate.

9. Expenditure on Technical Education.—The expenditure on technical education in each State during the period 1909 to 1913 is shown below:—

EXPENDITURE ON TECHNICAL EDUCATION, 1909-13.

(COMMONWEALTH.)

Year.	N.S.W.	Victoria.	Queensland.	South Aust.	West. Aust.	Tasmania.	C'wealth.
	£	£	£	£	£	£	£
1909 ...	61,452	27,039	13,589	12,742	9,422	3,209	127,453
1910 ...	71,002	32,217	20,612	13,476	9,987	3,055	150,349
1911 ...	77,160	41,030	34,611	13,017	14,590	3,726	184,134
1912 ...	99,265	42,541	44,073	13,906	27,536	3,318	230,639
1913 ...	132,305	49,139	63,589	10,532	26,886	3,529	285,980

The figures in the preceding table represent an expenditure of about 1s. 2d. per head of the population of the Commonwealth, as compared with 13s. 10d. per head spent on maintenance for primary education, and clearly shew that technical education has not attained its proper place in the educational organisation of Australia. Expenditure on buildings, included in the foregoing totals, comprises £61,562 in New South Wales, £9367 in Victoria; £38,048 in Queensland, and £10,449 in Western Australia.

§ 7. Business Colleges and Shorthand Schools.

There has been considerable development in recent years both in the number and scope of privately conducted institutions, which aim at giving instruction in business methods, shorthand, typewriting, the use of calculating machines, etc. Particulars for all States excepting Queensland are given in the table hereunder:—

BUSINESS COLLEGES AND SHORTHAND SCHOOLS, etc., 1913.

State.	Schools.	Teachers.	Students Enrolled.		Aver. Attendances.		Fees Recd.
			Males.	Females.	Males.	Females.	
New South Wales ...	17	107	2,112	4,526	1,105	2,096	£ 25,104
Victoria ...	15	171	3,764	1,695	2,667	1,331	3,998
Queensland*	...	...	...	...	...	...	...
South Australia ...	4	42	863	658	548	401	8,417
Western Australia ...	8	48	600	882	345	551	5,339
Tasmania ...	3	9	48	142	26	73	1,472

* Included in Private Schools.

The figures for average attendance show a predominance of woman students in all States except Victoria and South Australia, the excess being due to the increasing number of girls finding employment as stenographers, and in clerical and accountancy work. In Victoria it is explained that the preponderance of male students is due to the larger enrolment of males in the correspondence classes.

§ 8. Diffusion of Education.

1. **General Education.**—A rough indication of the state of education of the people is obtained at each Census under the three headings, "read and write," "read only," and "cannot read." The grouping of the whole population, exclusive of aborigines, in these three divisions is given for each Census since 1861:—

EDUCATION AT CENSUS PERIODS, 1861 to 1911.

(COMMONWEALTH.)

State or Territory.	1861.	1871.	1881.	1891.	1901.	1911.	
N.S.W. a	{ Read & write	188,543	296,741	507,067	835,562	1,071,935	1,379,631
	{ Read only...	46,024	56,391	49,372	43,539	29,728	6,442
	{ Cannot read	116,293	149,866	193,386	244,853	253,183	260,661
Vic. ...	{ Read & write	328,362	478,464	653,346	908,490	998,010	1,136,289
	{ Read only...	57,351	70,953	47,950	32,794	21,852	4,630
	{ Cannot read	152,915	180,781	160,270	198,566	181,208	174,632
Q'nsland	{ Read & write	17,152	74,940	136,436	276,381	376,294	508,703
	{ Read only...	3,680	12,080	13,657	14,618	11,737	3,416
	{ Cannot read	9,227	33,084	63,432	102,719	110,098	93,694
S. A. (b)	{ Read & write	72,190	117,349	200,057	236,514	290,748	344,095
	{ Read only...	18,535	21,509	15,267	9,571	8,283	1,785
	{ Cannot read	36,105	46,768	64,541	74,346	64,126	62,678
W. Aus.	{ Read & write	7,683	14,166	19,684	34,254	150,099	237,629
	{ Read only...	1,301	2,717	2,430	2,061	3,107	917
	{ Cannot read	5,853	7,902	7,594	13,467	30,918	43,568
Tas. ...	{ Read & write	48,282	55,941	74,966	103,138	133,579	155,295
	{ Read only...	13,136	13,946	9,606	6,287	3,907	918
	{ Cannot read	28,559	29,441	31,133	37,242	34,989	34,998
North'm T'rt'y (c)	{ Read & write	...	...	...	...	...	2,397
	{ Read only...	...	...	...	...	...	34
	{ Cannot read	...	...	...	...	...	879
Federal T'rt'y (d)	{ Read & write	...	...	...	...	...	1,424
	{ Read only	...	...	...	...	...	14
	{ Cannot read	...	...	...	...	...	276
C'wealth	{ Read & write	662,212	1,037,601	1,591,556	2,394,339	3,020,665	3,765,463
	{ Read only...	140,027	177,596	138,282	108,870	78,614	18,156
	{ Cannot read	348,952	447,842	520,356	671,133	674,522	671,386

(a) Including Federal Territory prior to 1911.
(c) Included in South Australia prior to 1911.(b) Including Northern Territory prior to 1911.
(d) Included in New South Wales prior to 1911.

The proportion in the Commonwealth of the various classes per 10,000 of the population is shown below for each Census period:—

PROPORTION OF EDUCATED AND ILLITERATE PER 10,000 PERSONS, 1861 to 1911.

(COMMONWEALTH.)

Division.	1861.	1871.	1881.	1891.	1901.	1911.
Read and write ...	5,752	6,239	7,073	7,543	8,004	8,452
Read only ...	1,217	1,068	615	343	208	41
Cannot read...	3,031	2,693	2,312	2,114	1,788	1,507

2. **Education of Children.**—The figures in the preceding tables refer to the entire population of the Commonwealth, and as the age constitution of those dwelling in the various portions of Australia underwent considerable modifications during the period dealt with, a far more reliable test of the diffusion of education will be obtained by a comparison of the Census returns in regard to children of school age. For comparative purposes this has been taken to include all children in the group over five and under fifteen years of age, and the degree of education of these at each Census will be found below:—

EDUCATION OF CHILDREN AT CENSUS PERIODS, 1861 to 1911.

(COMMONWEALTH.)

State or Territory.	1861.	1871.	1881.	1891.	1901.	1911.	
N.S.W. (a)	Read & write	34,040	68,776	121,735	196,240	251,187	291,450
	Read only ...	20,345	26,886	25,100	21,375	15,934	993
	Cannot read	25,472	32,924	41,663	48,580	60,734	34,793
Victoria	Read & write	42,268	122,739	170,713	201,199	236,515	237,028
	Read only ...	25,518	39,636	25,249	15,656	13,128	410
	Cannot read	19,341	29,490	21,421	27,441	27,765	19,621
Q'land...	Read & write	2,156	12,698	33,317	62,402	95,635	117,347
	Read only ...	1,534	6,104	7,019	7,580	5,955	616
	Cannot read	1,629	6,015	9,615	16,257	18,327	8,633
S. A. (b)	Read & write	15,485	30,608	46,630	58,291	69,451	69,878
	Read only ...	8,748	12,432	7,926	4,618	4,229	248
	Cannot read	6,907	10,074	12,483	17,988	15,480	9,638
W. Aus.	Read & write	1,333	3,218	4,418	6,910	25,326	47,568
	Read only ...	226	617	1,260	933	1,815	159
	Cannot read	1,015	1,795	1,593	2,348	5,431	5,234
Tas. ...	Read & write	11,919	17,335	17,188	24,007	32,890	36,351
	Read only ...	2,848	4,143	4,108	2,974	1,795	186
	Cannot read	4,581	6,663	6,606	8,829	8,475	5,575
N. T. (c)	Read & write	...	...	...	...	...	195
	Read only...	...	...	...	...	...	...
	Cannot read	...	...	...	...	...	118
Federal Ter. (d)	Read & write	...	...	...	...	...	322
	Read only...	...	...	...	...	...	2
	Cannot read	...	...	...	...	...	47
C'wealth	Read & write	107,201	255,374	394,001	549,049	711,004	800,139
	Read only ...	59,219	89,818	70,662	53,136	42,856	2,614
	Cannot read	58,945	86,961	93,381	121,443	136,712	83,659

(a) Including Federal Territory prior to 1911. (b) Including Northern Territory prior to 1911. (c) Included in South Australia prior to 1911. (d) Included in New South Wales prior to 1911.

In the case of Tasmania full details for the years 1861 and 1871 are not available, and the figures for those years are approximate. The variation in degree of education will be more readily seen by reducing the foregoing figures to the basis of proportion per 10,000, and the results so obtained are embodied in the following table, a glance at which is sufficient to demonstrate the remarkable strides that at least the lower branches of education have made since 1861. In that year, only 47 per cent. of the children of school age could read and write, while 26 per cent. were illiterate. The returns for 1911 shew that the proportion of those who could read and write had increased to over 90 per cent., while the totally ignorant had declined by nearly two-thirds.

**EDUCATION OF CHILDREN (AGES 5 TO 14) PER 10,000 AT CENSUS PERIODS,
1861 to 1911.**

(COMMONWEALTH.)

State or Territory.	1861.	1871.	1881.	1891.	1901.	1911.	
N.S.W. (a)	{ Read & write	4,263	5,349	6,458	7,372	7,662	8,907
	{ Read only...	2,547	2,091	1,332	803	486	30
	{ Cannot read	3,190	2,560	2,210	1,825	1,852	1,063
Victoria ...	{ Read & write	4,851	6,397	7,853	8,236	8,526	9,221
	{ Read only...	2,929	2,066	1,162	641	473	16
	{ Cannot read	2,220	1,537	985	1,123	1,001	763
Queensl'd	{ Read & write	4,053	5,116	6,670	7,236	7,942	9,269
	{ Read only...	2,884	2,460	1,405	879	495	49
	{ Cannot read	3,063	2,424	1,925	1,885	1,563	682
S. Aus. (b)	{ Read & write	4,973	5,763	6,956	7,206	7,790	8,761
	{ Read only...	2,809	2,341	1,182	571	474	31
	{ Cannot read	2,218	1,896	1,862	2,223	1,736	1,208
W. Aus. ...	{ Read & write	5,179	5,716	6,076	6,780	7,775	8,982
	{ Read only...	878	1,096	1,733	916	557	30
	{ Cannot read	3,943	3,188	2,191	2,304	1,668	988
Tasmania	{ Read & write	6,160	6,160	6,160	6,704	7,620	8,632
	{ Read only...	1,472	1,472	1,472	830	416	44
	{ Cannot read	2,368	2,368	2,368	2,466	1,964	1,324
Northern Territ'y (c)	{ Read & write	...	...	...	...	...	6,230
	{ Read only...	...	...	...	...	...	...
	{ Cannot read	...	...	...	...	...	3,770
Federal Territ'y (d)	{ Read & write	...	...	...	...	...	9,868
	{ Read only...	...	...	...	...	...	5
	{ Cannot read	...	...	...	...	...	127
C'wealth	{ Read & write	4,757	5,910	7,061	7,588	7,984	9,027
	{ Read only...	2,628	2,078	1,266	734	481	29
	{ Cannot read	2,615	2,012	1,673	1,678	1,535	944

(a), (b), (c), (d), see notes to preceding table.

3. Education as shewn by Marriage Registers.—Another common method of testing the spread of education is to compare the number of mark signatures with the total number of persons married during each year of a series. The percentage of males and females signing with a mark to the total persons married in the Census years 1861 to 1901, and during each of the last seven years, was as follows. The figures refer to marriages in the Commonwealth in respect of which information was obtainable.

ILLITERACY AS SHEWN BY MARRIAGE SIGNATURES, 1861 to 1913.
(COMMONWEALTH.)

Year.	Proportion Signing with Marks of Total Persons Married.						
	Males.			Females.			Total.
	per cent.	per cent.	per cent.	Year.	per cent.	per cent.		per cent.
1861	18.50	30.69	24.60	1908	0.71	0.73	0.72
1871	10.53	16.40	13.49	1909	0.65	0.62	0.64
1881	4.34	6.78	5.56	1910	0.56	0.59	0.58
1891	2.27	2.40	2.34	1911	0.56	0.54	0.55
1901	1.35	1.29	1.32	1912	0.43	0.45	0.44
1907	0.81	0.70	0.76	1913	0.36	0.38	0.37

The table shews that there has been a large diminution in illiteracy, and judging from the figures for the last few years the proportion bids fair to practically disappear. Up to 1891 there was a higher proportion of illiteracy amongst females, but during the last seven years the rates have been very even.

§ 9. Miscellaneous.

1. **Scientific Societies.**—(a) *Royal Societies.* Despite the trials and struggles incidental to the earlier years of the history of Australia, higher education and scientific advancement were not lost sight of. Thus the origin of the Royal Society of New South Wales dates as far back as 1821, when it was founded under the name of the Philosophical Society of Australasia, Sir Thomas Brisbane being its first president. Scientific work was fitfully carried on by means of a society whose name varied as the years rolled on. It was called the Australian Philosophical Society in 1850. In 1856 the old Australian Society merged into a resuscitated Philosophical Society of New South Wales, and its papers were published up to 1859 in the Sydney Magazine of Science and Art (2 vols. 1858-9). Its present title dates from 1866. Some of the papers of the old Philosophical Society were published in 1825 under the title of "Geographical Memoirs of New South Wales" (Barron Field), and contain much that is interesting in regard to the early history of Australia. One volume containing the Transactions of the Philosophical Society of New South Wales (1862-65) was published in 1866. The journal of the Society did not begin to bear a serial number, however (vol. 1), until the year 1867. "Transactions of the Royal Society of New South Wales" were issued in 1867, the title of the series being altered to "Journal" in 1876. Up to the end of 1913 forty-seven volumes had been published. The exchange list comprises the names of 379 kindred societies. At the present time the library contains about 21,700 volumes and pamphlets, valued at about £7600. Income and expenditure for the year ended 31st March, 1914, were £1188 (Government grant £400) and £1377 respectively. The Society had on the same date 313 members.

The Royal Society of Victoria dates from 1854, in which year the Victorian Institute for the Advancement of Science and the Philosophical Society of Victoria were founded. These were amalgamated in the following year under the title of the Philosophical Institute of Victoria, whilst the society received its present title in 1860. The first volume of its publications dates from 1855. The earlier publications dealt largely with Physics, later on Biology became prominent, while at present a large number of papers deal with Geology. Up to 1913 fifty-seven volumes of publications had been issued. The Society exchanges with 330 kindred bodies. The constitution of the society states that it was founded "for the promotion of art, literature, and science," but for many years past science has monopolised its energies. The library contains over 10,000 volumes. Income for the year 1913 amounted to £520, including Government grant £200, members' fees £224, other £96. The total expenditure was £448.

The inaugural meeting of the Royal Society of Queensland was held on the 8th January, 1884, under the presidency of the late Sir A. C. Gregory. The society was formed "for the furtherance of the natural and applied sciences, especially by means of

original research." Shortly after its formation it received an addition to its ranks by the amalgamation with it of the Queensland Philosophical Society, which was started at the time when Queensland became a separate colony. At latest date the members numbered 108; publications issued, 25 volumes; library, 4000 volumes; societies on exchange list, 167. Income from members' fees in 1913 amounted to £73.

The present Royal Society of South Australia grew out of the Adelaide Philosophical Society, which was founded in 1853, its object being the discussion of all subjects connected with science, literature and art. Despite this programme, the tendency of the papers was distinctly scientific, or of a practical or industrial nature. With the advent of the late Professor Tate the society became purely scientific. Permission to assume the title of "Royal" was obtained in 1879, the society thenceforward being known as "The Royal Society of South Australia." In 1903 the society was incorporated. In 1913 the number of members was 93. The income for the year 1913 was £417, including £228 Government subsidy, and expenditure £499. Up to 1913 the society had issued thirty-nine volumes of proceedings and six parts of memoirs, exclusive of several individual papers published in earlier years. The exchange list numbers about 183. The library contains 3900 volumes.

Permission to assume the title of Royal Society was granted to the Natural History and Science Society of Western Australia in March, 1914. This society has grown out of the Mueller Botanic Society, founded in July, 1897. The objects of the society are the study of natural history and pure science, promoted by periodical meetings and field excursions, the maintenance of a library, and the issue of reports of proceedings. Its numbers at present 112 members, whose subscriptions form its main source of revenue. Government aid in the past has ranged from £7 to £75 per annum, the subsidy paid in 1913 being £50. Four volumes of proceedings have been issued as Journal of the Natural History and Science Society of Western Australia. Its publications are exchanged with 50 institutions at home and abroad. The library contains 220 bound volumes, besides unbound journals, pamphlets, etc.

The Royal Society of Tasmania (the first Royal Society outside the United Kingdom) was founded by Sir Eardley Wilmot, Lieutenant-Governor of Van Diemen's Land, on the 14th October, 1843. A large portion of the Colonial Gardens, together with a grant of £400, was given to the Society. A library and museum were established in 1848. In 1885 the museum and gardens were given back to the State, the Society being granted room in the Museum for its library and meetings. The names of Captains Ross and Crozier, of H.M.S. *Erebus* and *Terror*, appear in the list of the first corresponding members. The society, which, since 1844, has published annual volumes of proceedings, possesses 169 members, 15 corresponding members, exchanges with 140 kindred bodies, and has a library containing 10,000 volumes in addition to manuscripts, etc. Income for the year 1913 was £213, of which £164 came from members' fees.

(b) *Other Scientific Societies.* The Australasian Association for the Advancement of Science, founded in 1888, has its headquarters in Sydney. It meets usually in each State biennially in turn. Its receipts to date were about £13,300, including Government aid to the amount of £4000. The library contains 4000 volumes, valued at £400. Up to date, fourteen volumes of proceedings have been issued. The exchange list numbers 188. The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1875, and possesses a library of 10,000 volumes, valued at £6000. Up to date, thirty-eight volumes of proceedings have been issued. Exchanges number 188. This Society maintains four investigators engaged in research work, and owes its development almost entirely to the benefactions of Sir William Macleay. The number of ordinary members at the end of 1913 was 172. Income for the year came to £1111, and expenditure to £1039. The special revenue for research purposes only was £2302, and the expenditure £1456. The British Astronomical Association has a branch in Sydney, and in some of the States the British Medical Association has branches.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation, particulars respecting which are not at present available.

2. **Libraries.**—As far as can be ascertained the total number of libraries in the Commonwealth at the latest available date was about 1700, and the number of books contained therein is estimated at about four millions. In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere. The new reading room at the Melbourne Library ranks amongst the finest in the world. It was opened in November, 1913, and has a diameter of 114 feet, with a similar height, and is capable of seating 320 readers at a time, all of whom are under efficient supervision from the centre of the room. The following statement gives the number of volumes in the Public Library of each city :—

METROPOLITAN PUBLIC LIBRARIES.

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Sydney	244,780	*	13,962	258,742
Melbourne	223,658	31,098	...	254,756
Brisbane	37,765	...	...	37,765
Adelaide	87,480	29,758	...	117,238
Perth	94,713	10,347	...	105,060
Hobart	19,000	...	...	19,000

* The maintenance and control of the lending branch of the Public Library at Sydney were transferred in 1908 to the Municipal Council. At the end of December, 1913, the books numbered 30,000.

The Mitchell Library in Sydney consisted of over 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia, valued at £100,000, bequeathed in 1907 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 practicable, hence the library is the resort of specialists. There are now 77,375 volumes in the library.

The Launceston Mechanics' Institute in Tasmania possesses a library of 27,000 volumes.

The number of libraries in receipt of State or municipal aid, together with the estimated number of books contained therein, is given below for each State:—

SUBSIDISED LIBRARIES AND BOOKS THEREIN.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.
Number of libraries	458	503	220	210	251	31	3
Estimated number of books ...	982,000	1,115,000	328,000	509,000	221,000	109,000	5,900

The figures in the above table can be taken only as approximations, as in many instances returns were not received from various institutions. The return for New South Wales includes the Public Library and the Sydney Municipal Library. Amongst other important libraries not included, may be enumerated those at the Sydney University and the Australian Museum, which contain 100,000 and 20,000 volumes respectively. There are also 3285 libraries, with an estimated total of 358,000 volumes, attached to State Schools.

3. **Museums.**—The Australian Museum in Sydney, founded in 1836, is the oldest institution of its kind in Australia. In addition to possessing a fine collection of the usual objects to be met with in kindred institutions, the Museum contains a very valuable and complete set of specimens of Australian fauna. The cost of construction of the

building was £79,000. The number of visitors to the institution in 1913 was 167,000, and the average attendance on week-days 452, and on Sundays 891. The expenditure for 1913 amounted to £11,133. A valuable library containing over 20,000 volumes is attached to the Museum. 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 in country schools. The "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History, and the Museum of Normal and Morbid Anatomy, connected with the University, and the National Herbarium and Botanical Museum at the Sydney Botanic Gardens, are also accessible to the public. There is a fine Technological Museum in Sydney, with branches in six country centres, the metropolitan institution containing over 112,000 specimens. Valuable research work has been undertaken by the scientific staff in connection with oil and other products of the eucalyptus. The number of visitors at the Technological Museums during 1913 was about 220,000.

The National Museum at Melbourne, devoted to Natural History, Geology, and Ethnology, is located in the Public Library building. The expenditure for specimens, furniture, etc., in 1913 was £500, and salaries and wages £2402. The Industrial and Technological Museum, opened in 1870, contains upwards of 55,000 specimens. There is a fine Museum of Botany and Plant Products in the Melbourne Botanic Gardens. Well-equipped museums of mining and geological specimens are established in connection with the Schools of Mines in the chief mining districts.

The Queensland Museum dates from the year 1871, but the present building was opened in January, 1901. Since its inauguration the Government has expended on the institution a sum of £80,570, of which buildings absorbed £18,470, purchases £25,018, and salaries £37,082. The number of visitors during the year was 78,657, of whom 30,566 visited the institution on Sundays. The Queensland Geological Survey Museum has branches in Townsville, opened in 1886, and Brisbane, opened in 1892.

Under the Public Library Act of 1884 the South Australian Institute ceased to exist, and the books contained therein were divided amongst the Museum, Public Library, and Art Gallery of South Australia, and the Adelaide Circulating Library. The Museum was attended by 85,000 visitors in 1913.

The latest available returns shew that the Western Australian Museum contains altogether 63,000 specimens, of an estimated value of £72,000. The Museum is housed in the same building as the Art Gallery, and the visitors to the combined institutions during the year reached 59,000 on week days and 17,000 on Sundays. The expenditure totalled £4075, of which salaries absorbed £2845.

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 and mineral products. The Tasmanian Museum received aid from the Government during last year to the extent of £500.

4. Art Galleries.—Information regarding the State collections of objects of art in the various capitals is in some cases very meagre, while the method of presentation does not admit of any detailed comparisons being made. The National Art Gallery of New South Wales originated in the Academy of Art founded in 1871. Cost of construction is returned at £79,000. The contents, which are valued at £143,000, comprise 406 oil paintings, 334 water colours, 536 black and white, 160 statuary and bronzes, and 373 ceramics, works in metal and miscellaneous. During 1913 the average attendance on week days was 569, and on Sundays 2280. The expenditure in 1913 amounted to £6001.

The National Gallery at Melbourne at the end of 1913 contained 559 oil paintings, 3728 objects of statuary, bronzes and ceramics, and 13,934 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 £291,000. At the end of 1913 the Ballarat Art Gallery contained 216 oil paintings, and 165 water colours, etc., while there are some valuable works of art in the smaller galleries at Bendigo, Geelong, and Warrnambool.

The Queensland National Art Gallery, situated in the Executive Buildings, Brisbane, was founded in 1895 and contains a small, but well chosen, collection of pictures. At latest available date there were on view 87 oil paintings, 23 water colours, 99 black and white, and 27 pieces of statuary, together with various prints, mosaics, and miniatures. Exclusive of exhibits on loan, the contents are valued at about £10,000.

The Art Gallery at Adelaide dates from 1880, when the Government expended £2000 in the purchase of pictures, which were exhibited in the Public Library building in 1882. The liberality of private citizens caused the Gallery to rapidly 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 T. Elder, the Government erected the present building, which was opened in April, 1900. The Gallery also received a bequest of £16,500 in 1903 from the estate of Dr. Morgan Thomas, and of £3000 in 1907 from Mr. David Murray. At the latest available date there were in the Gallery 221 oil paintings, 70 water colours, 23 statuary, and 650 miscellaneous works in metal, etc., the whole being valued at upwards of £47,000. A number of water colours, engravings, etc., have been removed to the Art Museum now in course of organisation. Building and site are valued at upwards of £31,000. Visitors during the year 1913 numbered 106,000.

The foundation stone of the present Art Gallery at Perth in Western Australia was laid in 1901, the building and site being valued at £60,000. The collection comprises 93 oil paintings, 50 water colours, 192 black and white, 265 statuary, and miscellaneous metal works, etc.

In Tasmania the Art Gallery at Hobart was opened in 1887. Its present contents consist of 96 paintings and 81 etchings and black and white drawings. Buildings and site are valued at £30,000. The number of visitors during the year on week days totals 60,000.

The Art Gallery at Launceston was erected in 1888 at a cost of £5000, and opened on the 2nd April, 1891. Only a small proportion of the contents belong to the Gallery, the bulk of the pictures being obtained on loan. At latest date there were on view 30 oil paintings and 44 water colours valued at £5000. The total value of buildings and site is estimated at £12,100. The annual attendance is 33,000, and for Sundays 16,000.

5. **State Expenditure on all Forms of Educational Effort.**—The expenditure from the Consolidated Revenue in each State and Territory on all forms of educational and scientific activity during each of the last five financial years was as follows:—

EXPENDITURE ON EDUCATION, SCIENCE, AND ART, 1909-10 to 1913-14.

State or Territory.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.
	£	£	£	£	£
New South Wales { Total	£ 1,149,422	1,221,175	1,416,015	1,609,734	1,735,404
{ Per head	14/3	14/10	16/8	18/1	18/11
Victoria ... { Total	£ 953,499	1,003,251	1,142,399	1,122,854	1,147,319
{ Per head	14/10	15/5	17/1	16/3	16/3
Queensland ... { Total	£ 510,388	503,021	535,082	622,238	679,653
{ Per head	17/8	16/9	17/2	19/6	20/7
South Australia... { Total	£ 231,584	275,671	298,610	323,787	342,209
{ Per head	11/9	13/6	14/3	15/1	15/6
Western Australia { Total	£ 222,861	251,071	298,530	319,723	349,371
{ Per head	16/9	18/1	20/3	20/10	21/9
Tasmania ... { Total	£ 87,603	92,036	95,352	101,008	112,364
{ Per head	9/1	9/6	9/10	10/3	11/2
Northern Territ'y { Total	£ ...	...	1,477	2,516	3,916
{ Per head	...	...	9/1	14/6	21/4
Commonwealth { Total	£ 3,155,357	3,346,225	3,787,465	4,101,860	4,370,236
{ Per head	14/7	15/1	16/7	17/4	17/11

The comparatively heavy increase in Queensland for 1909-10 and subsequent years is due to the inclusion of expenditure in connection with the University.