



INFORMATION DIVISION

DEPARTMENT OF EXTERNAL AFFAIRS

OTTAWA - CANADA

CANADIAN UNIVERSITIESHISTORICAL

The beginnings of education in Canada are found in the educational services offered, in an ancient tradition, by the Christian Churches. The first permanent school for French pupils was established in Quebec in 1635 by the Jesuits, and by the time control of the colony by the chartered fur trading companies gave way to Crown administration in 1663, primary education was available as well in Montreal and Three Rivers.

By 1655 classes in grammar, the humanities, rhetoric and philosophy were held in the Quebec school and instruction in mathematics and theology was added early in the 1660's. The faculty was held in considerable esteem overseas as is evident from the fact that the Jesuits sent students from France to study theology in Quebec. Attention was given at the outset to the demands made by an undeveloped frontier environment on its people, and applied science has long been prominent in North American educational developments. The most successful of various early technical schools in Canada was a school of hydrography created by the Jesuits and adapted to their college at Quebec about 1664. Here training was given in navigation and, recognizing the need for capable pilots and captains who could guide ships safely through the tricky waters of the St. Lawrence, the Intendant raised the teacher to the rank of Professor of Hydrography in 1671. Here is at least the symbol, if not the source, of that continuing response to the challenge offered to Canadian educators by geography and natural resources; and it is interesting to note that the provincial university of Newfoundland today has a Navigation School. From these early beginnings developed the widespread and flourishing system of higher education which serves French-speaking Canadians today. This system remains under the control of the Roman Catholic Church but certain of its units receive state aid. It contains four universities, St. Joseph's University in New Brunswick, l'Université Laval and l'Université de Montréal in Quebec Province, and the University of Ottawa in Ontario.

Early English educational institutions were similarly established by religious organizations. The history of the higher education of English-speaking Canada begins with the establishment of King's College at Windsor, Nova Scotia, in 1789, under the auspices of the Church of England. Two periods may be distinguished in this history: 1) from the coming of the Loyalists until the end of the Nineteenth Century; and 2) from the beginning of the Twentieth Century until the present time. The first period was one in which the influences of the English, Scottish and Irish universities were not only dominant but direct. For more than half a century nearly all the professors, except in two or three colleges, came from the British Isles. The Church of England next founded King's Colleges at Fredericton (1800) and at Toronto (1827). Dalhousie University, later to receive Presbyterian support, was founded in 1818 at Halifax, Nova Scotia, and Queen's University was founded at Kingston, Ontario, in 1841, on the model of the University of Edinburgh. McGill University at Montreal is privately endowed and has been non-denominational since its establishment in 1821. This first period was thus one of fruitful rivalry. When King's College in Toronto was removed from Anglican control in 1850,

the Church of England founded its own University of Trinity College, without state support, in 1851. Ten years previous to this Victoria University at Cobourg, Ontario, had been founded by the Methodists.

The leading features of the second period were consolidation and rapid expansion. After long deliberations, a system of federation was worked out among the denominational universities of Ontario, and the University of Toronto, supported by the province, now comprises King's College, known as University College, Victoria University, the University of Trinity College, and St. Michael's College, founded by the Basilian Order in 1852. Various professional, scientific and theological faculties and colleges have been added to the original arts institutions and this organizational structure is typical of other major Canadian universities.

It is clearly evident that higher education in Canada presents a varied pattern. The influence of European traditions is strong but they have been modified by North American social and environmental conditions. Some universities are supported by the Provincial Governments, others by private endowment, and still others by a combination of both. Denominational and non-denominational institutions offer similar high standards of scholarship and instruction to young Canadians and may even exist together on a federal basis as parts of a larger university.

THE PROVINCIAL GOVERNMENTS' RESPONSIBILITY FOR EDUCATION

As is evident from the foregoing, complete educational systems from free elementary schools through grammar (high) schools to normal schools and universities were already well-established in the Maritimes, Ontario, and Quebec when the British North America Act, 1867, which united the provinces, gave each complete control over education within its borders.

In each province there is a government department to deal with educational matters. In all provinces, except Nova Scotia and Quebec, this department is represented in the provincial Cabinet and in the Legislature by a Minister of Education. In Nova Scotia the Premier is chairman of a Council of Public Instruction, while in Quebec, with its system of dual control, the Provincial Secretary represents education in the Legislative Assembly.

Although the Superintendent of Education is head of the Quebec Department of Education, a Roman Catholic and a Protestant committee constitute the Council of Education which formulates policy and superintends the administration of all educational matters. These committees are in charge of the education of Roman Catholics and Protestants, respectively. The Council, however, has no authority over many special and technical schools which come directly under various government departments.

In all other provinces, the immediate head of the Department of Education is a deputy minister or director who is a professional educationalist and advises the minister on policy. Thus there is permanency and continuity to policy despite any changes of government.

There is no federal bureau or department of education.

There are, however, two national organizations which permit the exchange of ideas among educators from the different provinces and the discussion of common problems. These are the Canadian Education Association and the National Conference of Canadian Universities. The C.E.A. receives grants from each of

the provinces and is now in a position to provide representatives if it wishes for international education conferences. The National Conference of Canadian Universities issues every two years a Yearbook of Canadian Universities. This Yearbook contains detailed information about admission requirements, courses and degrees, and enrolment. The latest edition of the Yearbook is that for 1950.

BILINGUALISM

Canada has two official languages and either one may be the working language in academic circles. The bilingual approach of thoughtful Canadian educators is illustrated by the efforts of certain universities to improve the French of English-speaking Canadians. McGill University in Montreal has long had a popular French Summer School, and some seventeen years ago, the University of Western Ontario (London, Ontario) established a summer school at Trois Pistoles on the south shore of the St. Lawrence River about 150 miles below Quebec City. While the school was originally established to enable English-speaking students to perfect their conversational French, the Quebec Government early recognized the value of the school's work and encouraged French-speaking students to learn English there. French-language universities as well offer French courses designed for English-speaking students during the summer and in extension courses all the year round.

INFLUENCE OF NATURAL RESOURCES

The natural resources of Canada have understandably inspired research and instruction in their most effective development. Schools of agriculture, fisheries and mining and civil engineering, and faculties and departments in forestry, geography, applied economics and related fields, figure prominently in the Canadian university scene. Four Canadian universities offer 4-year courses leading to a Bachelor Degree in Forestry, and research in cellulose chemistry and related subjects is carried on in the Canadian Pulp and Paper Research Institute at McGill University. At the University of Montreal an institute of geography is perhaps of unusual interest; it provides additional training for students proceeding towards a Master of Arts degree in geography by means of a summer tour of several thousand miles lasting some two months.

A by-product of Alberta's oil industry has been a course in petroleum engineering at the University of Alberta in Edmonton. Sixteen young men received the first degrees in petroleum engineering granted by a Canadian university. Formerly any student wishing to study petroleum engineering had to enrol in a United States university. In addition, the university is giving special short courses to oil field workers to fit them for advancement in the industry.

THE UNIVERSITIES AND THE SECOND WORLD WAR

During the Second World War, the universities, instead of suffering from a depletion of students, found that their resources of personnel and equipment were taxed to the utmost, particularly in the science faculties. Short intensive courses were offered so that students could proceed more quickly to university work without any lowering of admission standards. Training in research techniques was provided for selected students and much actual research work according to programmes organized through the National Research Council was carried on at the universities. Students in uniform received service training on the campus; and in co-operation with the navy, army, and air force, certain special courses were offered, such as the pre-aircrew courses

which were given at eight universities across the country. When hostilities ended, Canada's treatment of its veterans was unparalleled, not only in specific aids to re-establishment in civilian life, but also in the provision of long-term opportunities for education. The demands on the universities were, if anything, greater than those made by wartime activities. The largest enrolment was at the University of Toronto where as late as 1948 more than 7,000 out of an approximate total of 17,000 students were veterans; the total of ex-service personnel receiving government assistance in university training during the academic year 1947-48 was 32,162. Every effort was made to prevent veterans from having to leave university because of financial difficulties, and loans to meet emergency conditions were made available from a Veterans Loan Board at each university. Veteran students have justified the confidence shown in them by their government; their failures were fewer than among other students and their honours percentage good.

THE SERVICE COLLEGES

An interesting post-war development in higher education in Canada was the establishment of two tri-service (navy, army and air force) cadet colleges in Victoria, B.C., and Kingston, Ontario. The college in Kingston is a newly organized and more comprehensive institution continuing in the great tradition of the Royal Military College which had been founded in 1876 and closed during the Second World War; there had been in Victoria during the Second World War a training school for naval cadets only. The first two years of the courses offered at these colleges are equivalent to the first two years of an arts course at a university with additional engineering subjects. At the end of two years cadets going into the executive and marine engineering branches of the navy receive special naval training. All others, on completion of their courses, obtain the equivalent in general education of an arts degree as well as the standard required to enter the fourth year in engineering at a university. A large number of cadetships, scholarships and bursaries are offered candidates for enrolment in these colleges. While graduates may return to civil life, the development in these cadet colleges of a body of highly trained potential officers is considered an important part of Canada's preparedness in an era when, as the Minister of National Defence said at the opening of the college in Kingston: "War is not inevitable but neither is peace certain."

SCHOOLS, FACULTIES AND COURSES

Practically all Canadian universities offer arts courses; most have schools of applied science; and departments and faculties provide for training and study in the professions. Interest at the university level is increasing in the fields of the fine arts and music, and in recent years schools of health and physical education have been added to the departments of six major universities. Certain other specialist branches of instruction, stimulated by regional requirements or opportunities, will be noted below, where a brief survey of the major Canadian universities will reveal a healthy diversity of emphasis and specialization.

MARITIME UNIVERSITIES*

Dalhousie University

Dalhousie University in Halifax, Nova Scotia, is the largest in the Atlantic Provinces; about 1,800 students registered

* The notes which follow are intended to indicate certain features only of some of the larger Canadian Universities. A complete list of degree-granting institutions in Canada will be found in Appendix I.

for the 1949-50 session. This figure includes 152 students in the University of King's College which moved from Windsor to Halifax in 1923 and is associated with Dalhousie. Dalhousie was founded in 1818 by Lord Dalhousie, then Governor of the Lower Provinces of Canada, as a non-sectarian college. At the laying of the cornerstone in 1820, Lord Dalhousie said that the university was established "upon the principles of religious toleration secured to you by the laws." King's College has maintained its relationship with the Church of England and is in complete control of its divinity school, but all classes in the faculties of arts and science at Dalhousie are open to students enrolled at King's. The campus at Dalhousie University, with its grey stone buildings, situated in the north-west part of Halifax, slopes down to a narrow inlet of the Atlantic Ocean. As well as the usual degree courses, the University offers the degree Master of Science (Fisheries), in co-operation with the Atlantic Fisheries Experimental Station and the Atlantic Biological Station.

Several other institutions are affiliated with Dalhousie, notably Pine Hill Divinity Hall, with its library of 25,000 volumes largely related to theology.

Mount Allison University

Mount Allison University at Sackville, New Brunswick, dates from 1839 when it was founded as Mount Allison Wesleyan College. The original University faculties of arts and science remain the most important. In 1875, however, a faculty of theology was added which, since 1925, has been maintained in co-operation with Pine Hill Divinity Hall in Halifax; and schools of applied science and home economics were established in 1902. The School of Fine and Applied Arts is the oldest to be associated with a Canadian University, and its summer courses are especially popular. While the connection of Mount Allison is directly with the United Church of Canada, the University is conducted on non-sectarian principles. It is co-educational and there are residences for 400 men and 300 women.

The University of New Brunswick

The University of New Brunswick at Fredericton is one of Canada's oldest institutions of higher education. Its origins can be traced back to 1785 when a group of United Empire Loyalists, drawn largely from the educated classes and including many graduates of Harvard and King's College, (now Columbia University, New York), presented a memorial to the Governor-in-Council, declaring the "necessity and expediency of an early attention to the establishment in this infant province (New Brunswick) of an academy of liberal arts and sciences."

The site of the University is ideal for an educational institution; its buildings are grouped on the slopes of a steep hill overlooking the provincial capital of Fredericton and the valley of the broadly curving St. John River. Behind the campus are the spruce and maple woods of the University forest, part of the 2,000 acres of land granted it in 1800 when the Provincial Academy of Arts and Sciences became, by provincial charter, the College of New Brunswick. The University is supported by the province. It is co-educational and non-denominational. Instruction is offered in four faculties, arts and science, engineering, forestry, and law. Recently the Chancellor of the University, Lord Beaverbrook, donated to the library an important collection of first editions and manuscripts to enrich an already valuable collection of documents relating to the early history of the province.

St. Francis Xavier University

St. Francis Xavier University is a private residential co-educational Roman Catholic institution at Antigonish, Nova Scotia. A university charter was granted it by the Legislature of Nova Scotia in 1856, thirteen years after its founding as a diocesan college at Arichat, Nova Scotia. This University is widely known for its work in adult education and its activity in this field provides an interesting example of how regional needs may determine university services. St. Francis Xavier's extension programme differs from other forms of university adult education in its emphasis on group study and community organization in contrast with the traditional type of learning for individual improvement. From group study, the people soon developed group organization for economic improvement. Co-operative associations of various kinds were set up, including marketing groups for fishery and agricultural products, credit unions, consumer co-operatives, processing plants, and other forms of community enterprises. The work of the Extension Department spread from nearby rural areas to the mining communities of Nova Scotia and then to other Maritime Provinces. So distinctive and effective has this university-sponsored activity become that it is described generally as the Antigonish Movement.

Acadia University

Acadia University at Wolfville, Nova Scotia, is Baptist but without creedal restrictions. The University has taken its name from its location in the heart of the land immortalized by Longfellow in his poem Evangeline. Acadia is primarily a residential university; throughout its history it has attempted first to meet the needs of its constituency and second to provide a strong liberal arts core for all its courses whether in engineering, science, or economics. Its faculty believes that classes should be small according to ancient classical tradition; there are rarely more than 35 students in any class. In a fine arts programme given each year, admission to which is covered by the regular student fee, outstanding international concert artists are brought to Acadia to contribute to the cultural life of the campus.

INSTITUTIONS OF HIGHER LEARNING IN QUEBEC

L'Université Laval

L'Université Laval, Quebec, stems directly from the Jesuit school founded in 1635 and it received its royal charter on December 8, 1852. Until comparatively recently the University limited itself to teaching in the four faculties named in its charter: theology, civil law, medicine, and arts. The arts faculty, however, has expanded to include a wide variety of schools and its teaching is carried on in many affiliated institutions outside the city and even outside the province, such as the Sacred Heart College at Sudbury, Ontario. Seven new faculties were created during the decade 1936-1947. The language used for instruction is French and, while the University is a private one, in the sense it is supervised by the Roman Catholic Church, it receives financial assistance from the Government of Quebec. Some 8,500 students were registered at the University during the 1949-50 session. Nearly a thousand of these were attending summer courses which attract teachers from all Canada and many parts of the United States. French courses are especially popular but credits leading to a degree may be obtained during the summer in many other subjects including philosophy, Latin, Gregorian Chant, and geography. The beginnings

of the university's library date back to the 1630's and many incunabula and other rare books may be found among its 366,000 volumes.

L'Université de Montreal

L'Université de Montreal has the largest enrolment of Quebec's universities and the second largest in Canada; its working language is French. In 1876, on the instigation of Monseigneur Bourget, Bishop of Montreal, the city obtained the right to organize a centre of university instruction as a branch of Laval University at Quebec. The University became autonomous in 1920 when a charter was granted by the Quebec Legislature, and received papal recognition in 1927. The following year construction began of one of the most striking university buildings on the continent. Dramatically situated high on Mount Royal, this gleaming white edifice with its soaring central tower is a landmark for visitors approaching Montreal from the west. In it are located the principal faculties and schools of the University but much of the University's highly diversified instruction continues to be offered in various buildings in the city below.

More than ten faculties and several schools and institutes cover a wide range of instruction in the arts, sciences and professions. The University was conceived along French lines and particularly in its arts faculties preserves and strengthens the individual characteristics of French-Canadian culture; but the University has also adapted itself to its North American environment, which has notably affected the approach, teaching methods and equipment in the scientific schools and faculties. The Faculty of Dental Surgery, for example, attracts many foreign dentists, especially from France and Belgium, who learn of the latest North American techniques in an atmosphere distinctively French in language and spirit. Many seminaries and colleges offering pre-university training are affiliated with the University of Montreal, and its decentralized organization includes also the Institut Agricole d'Oka; L'Institut du Radium, affiliated since 1933 with the Curie Foundation in Paris; and the Ecole de Médecine Vétérinaire.

McGill University

McGill University in Montreal was established by royal charter in 1821. It is privately endowed, non-denominational, and co-educational in most faculties. Eight of the University's nine faculties are situated in Montreal where the University campus lies on the lower slopes of Mount Royal, its buildings separated by lawns and trees from Sherbrooke Street, one of Montreal's busiest thoroughfares. The Faculty of Agriculture, together with the School of Household Science and the School for Teachers, is located at St. Anne de Bellevue on the St. Lawrence River about 25 miles west of Montreal. Sir William Dawson College, near St. John's, Quebec, was established in 1945 to accommodate some of the vastly increased numbers of students attending the University after the war. Sir William Dawson, after whom this unit was named, was an eminent geologist who, for 38 years, was Principal of the University. He is one of three famed scientists whose association with the University is particularly revered. The great physician, Sir William Osler, taught for many years at McGill and left his unique library to the University; and Lord Rutherford performed his first experiments upon the nucleus of the atom in the Macdonald Physics Building, where his original apparatus may still be seen, an ancient forerunner, as time is measured in the field of science, to the recently completed cyclotron, the second largest on this continent. In addition to the facilities required by traditional courses in the arts, sciences and professions, certain specialized laboratories and departments are maintained, among them the Montreal Neurological Institute

under the direction of Dr. Wilder Penfield, the Donner Medical Research Institute, and the Institute of Parasitology at Macdonald College. In addition, more than 700 students were registered in the School of Graduate Studies in the 1949-50 session.

Sir George Williams College

Sir George Williams College in Montreal is integrated with the Young Men's Christian Association of Montreal under whose charter it functioned for many years prior to the granting of its own provincial charter in 1948. The resources of this institution are entirely devoted to the conduct of three undergraduate faculties, arts, science, and commerce, in which bachelor degrees only are granted. While general education is the primary aim of all three curricula, the college provides for specialization or "majors" within its framework of compulsory generalization. The college is organized in day and evening divisions for the winter session and in an evening division only for the summer session of four months. Twenty-one courses, which can usually be completed in four years of full-time attendance in either the day or evening divisions, are required for graduation.

ONTARIO UNIVERSITIES

The University of Toronto

The University of Toronto is the provincial university of Ontario and is situated in the heart of the provincial capital. The academic organization of the University reflects that constructive compromise between old traditions and new approaches which appears so frequently in the Canadian cultural pattern. The American faculty system is blended with the English college system and various colleges, previously independent, preserve their individuality under a federal system.

Nine faculties, eight schools or departments and three affiliated theological colleges provide courses in the Arts, Sciences and Professions, and the Royal Ontario Museum and the Royal Conservatory of Music of Toronto are integral parts of the University.

Toronto University's large enrolment - now approaching its pre-war figure of about 12,000 after reaching a post-war peak of about 17,000 - has posed problems of space and equipment which a current expansion programme is endeavouring to meet. University administrators are aware of an associated problem which the President on one occasion stated thus: "We must be constantly aware of the grave danger of adopting the methods of mass production which have been successful in some industries." Thus it is intended that a larger teaching staff should be provided as well as a larger plant, so that the ancient university tradition, which emphasizes the meeting of minds on an individual basis, may be so far as possible maintained.

Numerous undergraduate clubs and societies with various special interests flourish on the campus. Nearly all male undergraduate life, except that which is directly related to the laboratory and lecture room, centres in Hart House. Gymnasia, a swimming pool, common rooms, a debates room, and a Great Hall are only some of the facilities found in this impressive neo-Gothic building. Much community interest and activity in drama has been inspired by its well-equipped theatre; the collection of Canadian art housed there is growing in importance; a small but beautiful chapel, notable for its wood-carving, and a mural by the Canadian artist Will Ogilvie, is located in the centre of the building; and at its western end the Memorial Tower, erected to honour members of the University who gave their lives in two world wars, is a Toronto landmark.

Although the great bulk of the University's work is done on its urban campus, certain of its facilities are far removed from Toronto. In Haliburton county, 150 miles from Toronto, is the University forest of 17,000 acres, where forestry students do their field work. A few miles from the city is a division of the Connaught Medical Research Laboratories, on a 145-acre farm property with quarters for animals. North of this the University operates the David Dunlap Observatory, which houses the third largest telescope in the world.

Notable in the scientific research undertaken under University auspices was the discovery of insulin by Sir Frederick Banting and Dr. C.H. Best, whose work is commemorated by the Banting and Best Department of Medical Research and the Banting Institute. This Department is soon to comprise a new laboratory bearing Dr. Best's name. The first electron microscope in North America was constructed by University physicists about 12 years ago; these instruments are important in the cancer research being carried on by the University. A just balance is struck, however, between science and the humanities and the work done in the Faculty of Arts, particularly in the fields of history, philosophy, economics and mediaeval studies, is widely known. The School or Graduate Studies is the largest in Canada with a registration during 1949-50 of more than 1,400 students.

Queen's University

Queen's University at Kingston, Ontario, owes its origin to the desire of the Synod of the Presbyterian Church in Canada for a ministry trained within the country, but since 1912 it has been non-denominational. In several respects it has established precedents for Canadian universities. Thus it was the first to open its arts courses to women in 1870, the first to hold a summer school, the first to organize extra-mural work with the courses taken counting towards a B.A. degree, and the first to introduce student self-government. The University is organized into three faculties, arts, medicine and engineering, and one independent school, of nursing. The Faculty of Arts includes the School of Commerce and Administration, the School of Physical and Health Education, the Institute of Industrial Relations, and the Institute of Local Government. Applied Science includes minerology, geology, chemistry, engineering and industrial physics.

It is perhaps not surprising that Queen's pioneered in summer school work, since the situation of the campus on the shore of Lake Ontario where it meets the St. Lawrence River is ideal for summer-time activity. Kingston is a small city and university life throughout the year is centred on the campus where a stately group of buildings, many of them built of the grey limestone characteristic of the region, bear little resemblance to the building on a side street where two professors and ten students formed the population of the University when it opened more than a hundred years ago. About 3,600 students were registered for all the University services for 1949-50.

The University of Western Ontario

The University of Western Ontario at London, Ontario, although founded under Church of England auspices, has since 1908 been non-denominational, except in certain affiliated colleges included in its Faculty of Arts. The University is privately controlled but receives financial support from the City of London and from the Province of Ontario. During the session 1949-50, about 4,600 students were registered in all its departments and about one-eighth of this number were veterans. The four constituent units of the University proper are the College of Arts and Science, the Medical School, the School of Nursing (formerly the Faculty of Public Health) and the School of Business

Administration. Work is also carried on in a summer school and in extension and extra-mural (correspondence) departments. Reference has already been made to the French-English language school conducted each summer by the University at Trois Pistoles, Quebec.

Most of the University buildings are located on a spacious wooded campus of 260 acres, bounded by the Thames River, on the outskirts of London. The Medical School is in downtown London and two affiliated arts colleges are in the industrial city of Windsor, 125 miles west of London; a third affiliated arts college serves the twin cities of Kitchener and Waterloo. This decentralization increases the University's service to one of Canada's most populous and most prosperous agricultural and industrial regions, of which London is the geographical, commercial and cultural centre.

McMaster University

McMaster University was granted a Charter in 1887. Originally located in Toronto, it was moved in 1927 to Hamilton, Ontario, and now consists of three colleges, the Divinity School, which is the Theological College, University College (arts), and Hamilton College (sciences and the school of nursing). The University is privately endowed and is Baptist in religious affiliation. Hamilton College, however, is non-denominational, and operated by a separate Board of Governors through provincial grants, distinct from the University's endowment. The physical plan of the University is currently being augmented by a new library building, an additional laboratory for research in experimental science and a separate graduate school of theology.

The University of Ottawa

On September 27, 1848, the first Bishop of Bytown opened St. Joseph's College which became subsequently the College of Bytown and the College of Ottawa, and in 1866 the University of Ottawa. In 1889 the University received from Rome its official recognition as a Catholic University with powers to confer degrees in philosophy, theology, and canon law. Its unique characteristic is illustrated by the publication in the University Quarterly "Le Revue d'Université d'Ottawa", of articles in French and English, the two languages of Canada, and in Latin, the language of the Church. The intention of the founders that the University should be bilingual has been carried out and it is appropriate that this institution, located in the heart of the nation's capital, should offer its courses of instruction in the two official languages of Canada. The ecclesiastical faculties have a justifiably wide reputation and each year between 300 and 400 priests, clerics, and laymen, from all parts of Canada and the United States, register in the traditional courses of philosophy, theology, and canon law; but the interests of the University are broad, and Schools of Medicine, Applied Science, Political Science, and Music, as well as Institutes of Psychology and Physical Education, have been established. In ten affiliated institutions, six of them in the Prairie Provinces, students are prepared for the same examinations which their young colleagues try on the same day in the parent university.

During the 1949-50 session, about 350 faculty members offered courses to nearly 5,000 students. These had come to Ottawa from the ten provinces, from the United States and from 22 other foreign countries.

Carleton College

"The Ottawa Association for the Advancement of Learning" was organized in 1942 with its immediate objective to offer

evening instruction in the first two years of university work. In 1946, the college opened full-scale day as well as evening classes and the next year complete four-year pass courses and five-year honours courses were organized in arts, science and commerce. A two-year course in journalism following the first two years in arts was organized in 1945. The evening courses with which the college began its work continue to provide a rich opportunity for young members of the Ottawa community unable to devote their whole time to higher education.

UNIVERSITIES IN THE PRAIRIE PROVINCES

The University of Manitoba

The University of Manitoba at Winnipeg is the oldest of the four provincial universities of Western Canada. It was founded by Act of the Provincial Legislature in 1877, on the model of the University of London, as an examining and degree-conferring body, on the basis of instruction given in three affiliated colleges already in existence, St. Boniface, St. John's and Manitoba. The first two of these remain, respectively, the French-language Roman Catholic and the Anglican affiliated colleges; while Manitoba, originally Presbyterian, was incorporated in United College, the United Church affiliation. Several later affiliations subsequently became faculties of the University, among them agriculture, medicine and pharmacy, after the University was empowered to offer instruction in its own right in 1900.

The main campus of the University is situated on the Red River in the municipality of Fort Garry, about seven miles south of the centre of Winnipeg. On this 1,000-acre site are situated the faculties (with the exception of the School of Medicine), the School of Music, Department of Pharmacy, and various other facilities. The buildings of the Faculty of Medicine are located in Winnipeg proper, near the General Hospital.

Situated as it is in the centre of one of the world's great grain-growing areas, it is not surprising that work in agriculture and related sciences should find prominent places in the varied activities of this province-supported university. A large part of the main campus is given over to the University farm and to the experimental plots of the Departments of Plant Science, Horticulture, Soils, and kindred subjects. On one of the University "streets", a row of about half a dozen spacious buildings houses such divisions of the Faculty of Agriculture as Dairy, Agricultural Engineering, Horses and Beef Cattle. The University also benefits by the presence on the campus of federal government laboratories for plant pathology, cereal breeding and the study of forest entomology.

In common with other North American universities, Manitoba's accommodation and teaching facilities were strained to the utmost to care for veteran students. To help meet a related housing emergency, two "Veterans Villages", managed by a council elected by the residents, were built in co-operation with the provincial and federal governments. While these particular villages were of a temporary nature, the University is at present beginning a period of growth which, in the past two decades, has been retarded by years of depression and war.

The University of Saskatchewan

A provincial government was organized in Saskatchewan in 1905 and one of its first acts was to set up a commission to choose a suitable location for a provincial university. Since Saskatchewan was then entirely an agricultural province, it was decided at the very beginning that ample provision should be made for the study of agricultural problems. Saskatoon, now a city of

about 50,000 people on the bank of the South Saskatchewan River, was selected for the University's location and the first two colleges established on the 2,000 acres of land purchased were a College of Agriculture and a College of Arts and Science. Courses are now offered leading to most of the usual university degrees, except that only pre-clinical years of medicine are available. The Department of Extension is very active, its chief function being to supply agricultural information to farmers by means of printed bulletins, films, radio broadcasts, lecturers, demonstrators, young farmers' clubs and short courses of specialized instruction in rural centres. The University regards itself as a people's university and as such it provides a summer school, various correspondence courses, and a Women's Work Department which supervises and conducts at the University and throughout the province all types of activities of special interest to the women of Saskatchewan.

The University of Alberta

The University of Alberta, like that of Saskatchewan, is almost as old as the province. Teaching began in Edmonton in 1908 with 45 students, four professors and no buildings; work was carried on in rented rooms in one of the city schools. There are now seven faculties and five schools (including a School of Graduate Studies) which, during the 1949-50 session, provided instruction for about 6,200 students. The University is supported by the province and is non-denominational, although St. Stephen's (United Church) and St. Joseph's (Roman Catholic) are affiliated colleges, together with the provincial Institute of Technology and Art at Calgary. Research and teaching in agriculture were early assignments given the University, and it is interesting to note that a survey committee in 1941 reported that because of the University's work in agriculture the farmers of Alberta are saved more than \$7 million each year. The University, however, has endeavoured to be universal in its interests and achievements, and courses are now offered in music, art and drama. The School of Fine Arts held each summer at Banff in the Rocky Mountains in a situation of spectacular natural beauty, has gained a nationwide reputation for the courses offered in all aspects of the theatre and in art, music, handicrafts, and oral French.

THE UNIVERSITY OF BRITISH COLUMBIA

The University of British Columbia at Vancouver, although established by a vote of the Legislature in 1890, did not begin its work until 1915. It is thus the youngest of the provincial universities, but in the past decade has expanded more rapidly than any of the others. Thirty-five years ago the University counted about 400 students among its members; its full-time enrolment in 1944 was about 2,400; more than 7,500 students were registered for the 1949-50 session, while a further 2,000 made part-time use of the University's services. This rapid growth is largely due to a post-war influx of veterans but also reflects the remarkable growth in the population of the Pacific province in recent years.

After the first World War, the accommodation provided by the University was overcrowded in much the same way as it was during the years 1945-50. The manner in which this situation was remedied, and the present site of the University established, is unique in Canadian university history. Construction of the nucleus of the University's present quarters was begun as the direct result of a student-organized petition, to which 53,000 citizens had signed their names, which three members of the student body laid before the Legislative Assembly in 1922. From this undergraduate initiative and achievement derived the complete self-government which has continued to be a feature of campus life.

The site of the University is on a peninsula flanked by the Strait of Georgia leading to the Pacific Ocean. From the campus there is a magnificent view of the snow-capped Coast Range to the north. The University plant in this striking setting is continually being enlarged and improved in order to accommodate with increasing ease and efficiency the third largest university community in Canada.

The University provides the usual courses in the arts, sciences and professions. An Art Centre was opened in December, 1948, which includes a workshop offering courses in ceramics, painting, sculpture, weaving and other applied arts, and an art gallery; it is anticipated that a Fine Arts Department will evolve from this beginning. A unit of the Forest Products Laboratories of Canada is housed in five buildings on the campus, three of which are maintained through a co-operative agreement between the University and the Federal Government. The importance of the sea in the economy of the Pacific Coast prompted the establishment in 1949 of the Institute of Oceanography, supported in part by the Defence Research Board and by the Joint Committee on Oceanography representing the interests of the Royal Canadian Navy, the National Research Council, the Fisheries Research Board and the Hydrographic Service. Union College of British Columbia (United Church of Canada) and the Anglican Theological College of British Columbia, are affiliated with the University.

RESEARCH AGENCIES AND LEARNED SOCIETIES^{*}

Closely associated with the higher ranges of science in Canada is the National Research Council, set up in 1916 to foster, stimulate, and co-ordinate scientific and industrial research. One of its major activities has been the provision of scholarships for research workers, in order to build up a large body of scientific experts; as a result many hundreds of researchers have proceeded to the doctorate and have had a stimulating effect on the graduate schools in science. Grants to individual professors and institutions have served to encourage permanent centres of research, not otherwise predictable, in some of the smaller universities. The National Research Council operates independently some eleven laboratories across Canada. One of its most important functions is to organize and co-ordinate national co-operative research programmes, in which many government departments and many organizations may have an interest. This function is carried out through associate research committees composed of the leading experts in each field of research. These committees seem to be a peculiarly Canadian invention, and have proved to be very effective.

There have more recently come into existence the Canadian Social Science Research Council (1940) and the Humanities Research Council of Canada (1944), seeking to provide stimulus and encouragement in their respective disciplines. Neither has sought or received financial assistance from government sources, but they have been aided by funds from foundations in the United States.

Another agency co-ordinating and stimulating Canada's intellectual life at its higher levels is the Royal Society of Canada, founded in 1882. It is composed primarily of senior scholars and scientists, elected to membership in some one of five sections; (1) humanities and social sciences in French; (2) humanities and social sciences in English; (3) chemical,

* This section is quoted from Canada, edited by George W. Brown (University of California Press, University of Toronto Press, 1950) p. 455.

mathematical, and physical sciences; (4) geological sciences; and (5) biological sciences. Its obvious models are in part the Royal Society of London for Improving Natural Knowledge and in part the British and French academies. To these influences from the two major traditions of its historical background it has added a peculiarly Canadian emphasis on geology.....

More active, perhaps, are the Canadian Historical Association, the Canadian Political Science Association, the Canadian Geographical Society, the Canadian Institute of International Affairs, and comparable scientific and academic associations, the appearance and far-ranging activity of which have been striking features of Canadian intellectual life during the past few decades.

UNIVERSITIES AND THE STATE

The responsibility for education in Canada rests by statute with the provincial governments. Since the war, however, effective co-operation has been maintained between Federal Government agencies, notably the Department of Veterans Affairs, and the universities, in making possible the large-scale programme of veterans' education undertaken by the Government. Recently, the hope has been expressed by responsible university administrators that an arrangement might be worked out by which the Federal Government could assist in the expansion and secure establishment of institutions of higher learning throughout the country. The need for and the acceptability of such an arrangement were stated in representations made to the Royal Commission on National Development in the Arts, Letters and Sciences during its hearings, 1949-50. The Chairman of this Commission, Mr. Vincent Massey, is also Chancellor of the University of Toronto. The Prime Minister, Mr. L.S. St. Laurent, on the occasion of his receiving the degree of Doctor of Laws (honoris causa) from the University of Toronto on October 27, 1950, spoke of the universities in Canada as follows:

"The Universities are, without question, among the most precious of our national institutions. Now I recognize, and I believe most Canadians recognize, the wisdom of the provision of our constitution which made education perhaps the most important of all those subjects entrusted to the provincial authorities. This provision was designed primarily to safeguard both of the two cultural traditions which we Canadians possess and which, year by year, we are coming to cherish more and more, as we realize how greatly they enrich our national life. The entrusting of education to the provincial authorities has the further advantage of providing a measure of insurance against too great a degree of uniformity in our educational systems. No one with any real respect for our history and tradition would wish to disturb that constitutional position. At the same time, I think many of us recognize increasingly that some means must be found to ensure to our universities the financial capacity to perform the many services which are required in the interest of the whole nation. I hope you, Mr. Chancellor, in association with your colleagues in another of your capacities, will be able to help us to find a proper solution of that difficult problem.

"In seeking a solution of the problem we must never lose sight of the fact that, essential though it is to provide for the training of scientists and of men and women for the professions, this is not the highest national service the universities perform. Their highest service is to educate men and women in that liberal and humane tradition which is the glory of our Christian civilization. The first task of a true University is to keep alive the flame of civilization itself."

I

Degree-granting Universities in Canada

Acadia University	Wolfville,	N.S.
Alberta, University of	Edmonton,	Alta.
Bishop's University	Lennoxville,	Que.
British Columbia, University of	Vancouver,	B.C.
Carleton College	Ottawa,	Ont.
Collège de Ste-Anne (French)	Church Point,	N.S.
Dalhousie University	Halifax,	N.S.
King's College	Halifax,	N.S.
Laval (French) University	Quebec,	Que.
McGill University	Montreal,	Que.
McMaster University	Hamilton,	Ont.
Manitoba, University of	Winnipeg,	Man.
Memorial University	St. John's, Newfoundland.	
Montreal (French), University of	Montreal,	Que.
Mount Allison University	Sackville,	N.B.
Mount Saint Vincent College	Rockingham,	N.S.
New Brunswick, University of	Fredericton,	N.B.
Nova Scotia Agricultural College ^x	Truro,	N.S.
Nova Scotia Technical College	Halifax,	N.S.
Ottawa (French and English), University of	Ottawa,	Ont.
Queen's University	Kingston,	Ont.
St. Dunstan's University	Charlottetown,	P.E.I.
St. Francis Xavier University	Antigonish,	N.S.
St. Joseph (French and English), University of	St. Joseph,	N.B.
Saint Mary's College	Halifax,	N.S.
Saint Thomas College	Chatham,	N.B.
Saskatchewan, University of	Saskatoon,	Sask.
Sir George Williams College	Montreal,	Que.
Toronto, University of	Toronto,	Ont.
Victoria University	Toronto,	Ont.
Trinity College	Toronto,	Ont.
St. Michael's College	Toronto,	Ont.
Western Ontario, University of	London,	Ont.

^x Two year courses only.

II Colleges Offering Full Curricula in Affiliation with Degree-Granting Universities

Maritime College of Pharmacy	Halifax, N.S.	Dalhousie.
Assumption College	Windsor, Ont.	Western Ontario.
St. Peter's Seminary College of Arts	London, Ont.	Western Ontario.
Ursuline College	London, Ont.	Western Ontario.
Waterloo College	Waterloo, Ont.	Western Ontario.
Ontario College of Pharmacy	Toronto, Ont.	Toronto.
Ontario Agricultural College	Guelph, Ont.	Toronto.
Ontario Veterinary College	Guelph, Ont.	Toronto.
Manitoba Law School	Winnipeg, Man.	Manitoba.
Brandon College	Brandon, Man.	Manitoba.
United College	Winnipeg, Man.	Manitoba.
St. Paul's College	Winnipeg, Man.	Manitoba.
St. John's College	Winnipeg, Man.	Manitoba.
Collège de St-Boniface	St. Boniface, Man.	Manitoba.
St. Thomas More College	Saskatoon, Sask.	Saskatchewan.
Collège Mathieu	Gravelbourg, Sask.	Ottawa.
Collège Thevenet	Gravelbourg, Sask.	Ottawa.
Collège du Sacré-Coeur	Regina, Sask.	Ottawa.
Notre Dame College	Wilcox, Sask.	Ottawa.
Collège des Jésuites	Edmonton, Alta.	Laval.

Average Total Cost of a Year at University in Arts and Science - Men
1947-48

UNIVERSITY	Tuition and other fees	Textbooks and Equipment	Living Expenses in Residence	Ex-Clothing Recreation, etc.	TOTAL	Extra Fees for Foreign Students
	\$	\$	\$	\$	\$	\$
MARITIME PROVINCES						
Dalhousie University (1) Halifax, N.S.	184	50	385	341	960	
Mount Allison University Sackville, N.B.	240	54	350	367	1,011	
University of New Brunswick Fredericton, N.B.	215	32	450	418	1,115	
QUEBEC PROVINCE						
Université Laval Québec, Qué.	235	70	395 (2)	418	1,118	
Université de Montréal (1) Montréal, Qué.	250 (3)	47	420 (3)	407	1,124	
McGill University Montreal, Que.	280	46	478	443	1,247	
PROVINCE OF ONTARIO (1)						
Université d'Ottawa Ottawa, Ont.	136	40	375	344	895	100
Queen's University Kingston, Ont.	215	50	350	316	931	
McMaster University Hamilton, Ont.	226	33	428	325	1,012	
University of Western Ontario London, Ont.	235	47	420 (2)	337	1,039	165
University of Toronto Toronto, Ont.	235	32	466	353	1,086	
PRAIRIE PROVINCES						
University of Manitoba (1) Winnipeg, Man.	165	55	380	392	992	
University of Saskatchewan Saskatoon, Sask.	130	35	360	367	892	
University of Alberta (1) Edmonton, Alta.	162	55	400	405	1,022	
BRITISH COLUMBIA						
University of British Columbia Vancouver, B.C.	190	38	361	334	923	

(1) Estimated.

(2) Living expenses shown here are for boarders in private homes and not for those living in University residence, as in the rest of the table.

(3) These figures represent the expenses for science students only; affiliated classical colleges comprise the arts faculty.

NOTE - These figures must be considered approximate. The cost of living index in June 1948 was 154.3 (average 1935-39 = 100) and this index has risen since that time. Readers of this paper who are particularly interested in this subject should apply for information directly to the Registrars of individual universities.