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THE CANADIAN SYSTEM OF EDUCATION

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This report has been prepared for the general reader outside Canada who wishes to know something about Canadian education -- how it is organized, administered and financed, the types of school it makes available, and who attends them. The reader is assumed to know the basic geography of the country, which occupies the northern half of North America (except for Alaska) and supports a population of more than 19 million, clustered mainly along the 3,500-mile border with the United States but pushing its outposts north in increasing number as more of the oil and mineral wealth of the Arctic and sub-Arctic regions is disclosed. It is also assumed that the reader knows that Canada is a federation of ten provinces and an independent member of the Commonwealth.

In Canada, executive authority is vested in the Queen and her representatives the Governor General and the lieutenant-governors of the provinces. By the British North America Act of 1867, legislative responsibility was vested in the federal and provincial legislatures.

When the provincial leaders sat round the conference tables in Charlottetown and Quebec just over 100 years ago to consider the desirability of forming a federation, they maintained firmly that the education of all Canadians except Indians, Eskimos and other persons in the territories, as well as a few special populations, should remain the business of the provincial legislatures. It is true that in 1867 education consisted, for the most part, of instruction in schools run by the community, with some help and direction from the province. In other words, education was still mainly a matter of local concern.

Since 1867, the role of education in Canada has changed. Today, its chief purpose is considered to be that of contributing to the good of a changing society and to its economic advance, at the same time ensuring the development of the individual member of that society to his maximum capacity. Greater change can be expected as Canada progresses further into

the age of cybernation and becomes still more deeply involved in international affairs. Greater variety of educational opportunity must be provided, in order to produce graduates who can meet the new challenges in trade, industry and government.

In Canada's pioneer days, elementary schooling consisted of reading, writing and "number work"; these three were considered sufficient for the needs of most pupils. The contents of the classroom readers were largely religious and highly moral. As a result, controversy broke out now and then between those who wished religion to be taught in the schools and to permeate the secular subjects and those who wished to keep sacred and profane studies separate.

Today, certain provinces permit Catholic or Protestant minorities to establish separate schools. Others observe a gentleman's agreement permitting secularly-oriented schools to be operated by Catholic or Protestant minorities as part of the public-school system. And all provinces permit the establishment of private schools by religious bodies, individuals and groups, provided they are satisfied that the education so offered is comparable to that of the public schools.

In the early days, secondary schools, whether Latin Grammar Schools or academies, were established to prepare students for professional training at university, for teacher training and for other academic pursuits. Social distinctions were evident in the Latin Grammar Schools. The academies, usually established by subscribers living in the same community, were generally more practical in nature. By the middle of the nineteenth century, the secondary schools were administered by provincial departments and were often superimposed on elementary schools. Secondary schools were for all pupils who could qualify, and it came to be accepted that everyone was entitled to elementary and secondary education who could benefit from it. The next step was to achieve equality of educational opportunity so far as providing money to operate the schools was concerned.

At present more attention is directed towards developing creativity and originality, and education is aimed at developing the individual to his maximum potential. However, it is difficult to remove emphasis from the accumulation of factual information, and to overcome a trend toward regimentation with "packaged courses", or to aim at quality control which will produce a reasonably uniform product of acceptable quality.

Responsibility for Education

Each of the ten provinces has the authority and responsibility for organizing its education system and education policies. Consequently, organization and practice differ somewhat from province to province -- first, because of their historic beginnings; second, owing to influences from other countries; third, because of developments following recommendations of royal commissions; and fourth, following official decisions implemented by the legislature or department of education of each province. Differences among the provinces are gradually lessened or increased as one province or another changes its organization and moves ahead. Quebec is now in the process of reorganizing its department and school systems, which, outwardly, will more

nearly resemble those of the other provinces; but further new and important differences are appearing in this province just as in such others as Ontario, British Columbia and Saskatchewan.

Each province has a department of education under a minister of education, who is a member of the cabinet. The department is administered by a deputy minister, who is usually a civil servant and a professional educator. He advises the minister on policy, supervises the department and gives a measure of permanency to its educational policy. In general he carries out that policy, and is responsible for the enforcement of the school act. The department of education usually includes the following additional members: the chief inspector of schools and high-school and elementary-school inspectors or superintendents; directors or supervisors of curricula, technical education, teacher training, home economics, guidance, physical education, audio-visual education, correspondence instruction, and adult education; directors or supervisors of a limited number of other sections (according to the needs of the provinces); and technical personnel and clerks. Only in Newfoundland, which has a public-denominational system, are there superintendents for the five denominations accepted by the School Act; and in Quebec there are two deputies, one in charge of the French-language system, the other in charge of the English-language system.

The trend is toward greater diversification of effort, with increased specialization by departmental personnel and closer co-ordination of the services provided. Current efforts to reorganize the administrative units in Ontario and Quebec, and to some extent elsewhere, furnish examples of this kind of change in progress. Work of a committee on data-processing under the ministers of education should affect record-keeping and provide better service in all departments. The greater use of audio-visual aids, programmed instruction, educational and closed-circuit television makes greater demands on the departments, schools and other organizations. The new emphasis on structure in subject matter, on newer methods (such as the Cuisenaire, the Initial Teaching Alphabet) and on more varied organization for instruction (such as team teaching, which may involve large-group, small-group and individual instruction) cannot but affect the work of the departments. Other areas include that of special education for atypical children, increases in transportation, and expansion of technical and vocational education at all levels -- all of which affect the responsibilities of departmental officials, school-boards and teaching personnel.

For many years the schools were established and operated according to school law. Provincial inspectors tried to ensure competent instruction and uniform standards throughout the province. As city schools have become more integrated and larger units have been organized in the rural and semi-urban areas, superintendents and principals have undertaken to provide leadership and direction to the schools of their districts. City school superintendents have been employed by local school boards. This movement towards decentralization is also to be seen over the years in a reduction of the number of departmental or external examinations, which are now generally limited to the final, or last two years, of high school. Again, some provinces permit the schools to select textbooks or reference books from a fairly extensive list and to try out experimental classes. Courses of study are seldom planned by one or two experts from the department, but are the result of conferences and workshops of teaching personnel and others actively interested in the subject matter.

From the beginning, each department of education has undertaken, among other things: (1) to provide for the training and certification of teachers; (2) to provide courses of study and prescribe school texts; (3) to provide inspection services to help maintain specified standards; (4) to assist in financing the schools through grants and services; (5) to make rules and regulations for the guidance of trustees and teachers. In return, each department requires regular reports from the schools.

Other provincial departments having some responsibility for operating school programmes are: the departments of labour, which operate apprenticeship programmes; agriculture departments, which operate agriculture schools; departments of the attorney-general or of welfare, which operate reform schools; departments of lands and forests, which operate forest-ranger schools; and departments of mines, which conduct prospectors' courses.

Local Units of Administration

In all provinces, school laws provide for the establishment and operation of schools by local education boards, which operate under the public-school act and are held responsible to the provincial government and resident ratepayers for the actual operation of the local schools. Through the delegation of authority, education becomes a provincial-local partnership, with the degree of decentralization changing from time to time. Questions concerning the extent to which curricula development, local supervision and the percentage of the education burden that should be local rather than provincial will probably occupy the minds of Canadians for decades to come, as well as problems such as the optimum size of units, schools and classes, qualifications of teachers, and so on.

From the beginning, the provincial departments delegated authority to publicly-elected or appointed boards, which functioned as corporations under the school acts and regulations. These three-man boards were expected to establish and maintain a school, select a qualified teacher, prepare a budget for the annual meeting and present it to the municipal authorities. As towns and cities developed, the original boards remained as units, but provision was made in the acts for urban school-boards with more members and, generally, with responsibility for both the elementary and secondary schools, though in some districts separate boards are still to be found.

In the rural areas, a number of pressures were brought to bear on the organization of districts, some four miles square, which were established when local transportation was by ox-team or horse and the school had to be within walking distance of the home. The realization grew that the manner of living had changed, that farms were much larger and mechanized, that most farmers had trucks and automobiles, that there were fewer children to the square mile, and that it would be more efficient and economical to provide central schools and transportation. In addition, there was considerable discontent among the teachers, as security of tenure was rarely found under the three-man local school-boards. Add a shortage of teachers, differences among the districts in their ability to pay for education and a demand for high-school facilities in rural areas, generally of the composite type, and some of the reasons become clear why larger administrative units were introduced.

It was hoped that a greater degree of equalization could be achieved, that better facilities could be provided at a lower rate and that the short supply of teachers could be met somewhat more effectively. The units were introduced by acts of the legislatures in Alberta and British Columbia and by acts with provision for local option in Saskatchewan and the Maritime Provinces. Manitoba, following recommendations, introduced legislation making it beneficial to areas that organized larger secondary units. Ontario has organized some country units in the southern part and there is discussion of additional amalgamation. Quebec is in the process of reorganizing Quebec schools under "Operation 55", which should result in the formation of some 55 larger units, which will encompass all of Quebec's Roman Catholic schools, including vocational schools. The Protestant schools are already organized for administrative purposes.

In some of the Western provinces the local boards were replaced by unit boards; in others the local boards were retained with limited duties and unit boards were set up. The local boards generally functioned in an advisory capacity.

This represents one step toward equalization of opportunity financially. Alberta has gone one step further in some regions, by making the school areas coterminous with municipal units. Where such county units are established, a committee from the municipal council administers the schools with the authority and power usually exercised by the unit board. Where unit boards are established, they are responsible for providing the necessary buildings, equipment and staff, and financing the schools.

Early Childhood Education

Day nurseries are established primarily to provide day-care for the pre-school children one and a half to five years of age of working parents. About two-thirds of the day nurseries are conducted by public or private welfare agencies.

Nursery schools are usually for children from three to five years old, who attend for half the day. Most of these are private institutions, which may be operated as co-operative enterprises or for profit. It is estimated that there are more than 200 nursery schools in Canada, and the number is likely to increase. In some provinces their establishment must be approved by the departments of education and health.

Kindergartens are now found at the base of the elementary school in most large urban centres, but there are separate private institutions as well. Most kindergartens accept only five-year-olds, but a few, where facilities permit, also accept four-year-olds.

Programmes are designed to help the child mature through developing skills and good habits. They provide an opportunity for him to live with others and express himself. In addition to schedules for lunch, toilet and rest periods, indoor activities include music, stories and handiwork; outdoor activities are built round free play with large equipment. Toward the end of his stay in the kindergarten, the child is introduced to simple ideas of language and numbers to prepare him for the formal studies to follow.

The Canadian Broadcasting Corporation provides a 15-minute radio programme, "Kindergarten of the Air", for pre-school children five days a week from autumn to spring.

Elementary and Secondary Education

Enrolment in the elementary and secondary schools has been increasing year by year, until in 1963-64 there were 4,584,226 pupils enrolled in the public schools, 212,872 in the private schools and about 20,000 in the business colleges.

Each September, the six-year-olds enter the first year of elementary school, where they study for six, seven or eight years, before entering junior high school or the traditional high school. A small number leave the academic stream for technical secondary schools or trade schools and many enter composite schools, where they have a choice of courses. After completing 12 or 13 grades or years successfully, students who took the academic or college preparatory course continue on to college or to university. Others may enter post-secondary technical institutes or professional training in nursing schools, teachers' colleges outside the universities, business schools and the like. Of those who enter university, about 10 per cent who began Grade I, may take arts, science, commerce, education, and complete their courses in three years if they enter with senior matriculation or four if they take honours. Those taking the professional courses will generally require longer to obtain their first degree and may be expected to have taken preparatory science or arts courses before enrolling. Some graduates will study for at least one extra year to obtain a master's degree or three extra years for a doctorate. Recently, post-doctorate courses have been offered. Canadian universities graduated 25,221 with first degrees, 3,152 with masters' degrees in 1963, and 481 with doctorates in 1964.

The 8-4 plan leading from Grade I to university was for many years the basic plan for organizing the curriculum and schools, other than the Quebec Catholic schools. It is still followed in many rural, village and town schools, and in some cities. However, this plan has been modified over the years in most provinces, cities, or groups of schools, since it seemed to be inadequate to meet the demands arising from new educational aims. There are a number of variants at present to be found in Canada. For example, there is the addition of one, or even two, kindergarten years at the beginning of the system. An extra year has been added to high school, providing five rather than four years of secondary schooling. Junior high schools have been introduced and the resulting organization changed to 6-3-3, 6-3-4, 7-3-3 or 7-4-2 plans. As an alternative, the first six years of elementary school have been combined into two units of three years, each designed to reach certain specified goals during a three-year period. A few junior colleges affiliated with universities have been organized offering the last one or two years of high school and the first one or two years of college; Quebec has introduced a two-year institute between high school and university.

Introduction of one or other of these plans depends to some extent on a sufficient number of pupils, either living in prescribed areas such as cities or brought together by the reorganization of rural areas into larger units, with regional schools provided for high-school pupils. These larger units may be formed exclusively from rural areas, or from rural, village and

town schools, and they may be organized for both elementary and secondary schools or for secondary schools only. Such development, now fairly common in most provinces, provides for the transportation of rural pupils to central schools. Many of these units have organized composite high schools offering both practical and academic courses and differing from the more typical high schools, which are mainly occupied in preparing students for college. Even some of these, indeed, provide a minimum number of vocational and general courses.

The composite and regional high schools provide courses in home economics, agriculture, shop-work and commercial subjects, as well as the regular secondary-school subjects. The number of subjects offered has also increased greatly, and the options available, particularly in Alberta and British Columbia, provide a broad programme intended for pupils with a wide range of abilities and desires. There is a trend toward providing a comprehensive programme with college preparatory classes, broad preparatory courses for those entering the skilled trades, and general courses for those who will leave high school to become tradesmen, office workers, and so on. Attention is thus given to the minority who will go on to institutions of higher learning, while the majority, who will look for jobs after high-school completion, are fitted by their training for the responsibilities they will assume. All pupils are encouraged to "develop qualities of good citizenship" and a desire to continue learning after leaving school. Considerable emphasis has been placed on music, art, physical education, guidance and "group activities", but not at the expense of the basic subjects that provide a general foundation.

Most schools have programmes of extra-curricular activities that cover a wide field and range from bands, orchestras and glee clubs to recreational and hobby clubs. Students in the larger schools usually elect a students' council, which assists in planning and administering sports and recreation programmes and publishing school papers and yearbooks.

Newfoundland has a public-denominational school system. Each leading denomination has a secretary in the Department of Education who operates under the Deputy Minister and administers the schools of his denomination. All schools operate under the same school law and use the same curriculum, and all teachers are instructed in the same training institutions.

Quebec is also unique, with two public systems -- one basically for Catholic French-speaking students, the other for Protestant English-speaking students -- and some provision for all other students. Each system has responsibility for organizing its own schools and designing its curriculum.

Special Schools and Special Education

There is increased interest in exceptional children, including the gifted, as well as in the disabled or the emotionally, mentally, physically or socially handicapped. In the 1953-54 school year, facilities were provided for 42,430 exceptional children, under the charge of 1,900 teachers, in 108 special schools and 588 special classes provided from public sources, and in

130 private schools. The largest group was found among the mentally retarded, followed by those requiring speech correction, the orphaned and neglected, institutional cases, delinquents, hospital cases, and a variety of other categories.

New types of special class are sometimes started by parents of children with a common disability, who band together to provide help and show the need for such service, which is then taken over by public bodies. Similar classes are initiated by the department of education or municipal authorities. Progress in providing such education varies from province to province. It generally begins in the city-school system; there is usually little provision for assistance for the rural child who needs special attention, except for those who are taken to institutions.

There are six schools for the blind, nine schools for the deaf and a number of training schools for mental defectives. Special classes are found in tuberculosis sanatoria, mental hospitals and reformatories. In many cities, there are classes for the hard-of-hearing, the partly blind and other physically and mentally handicapped children.

Special classes in the regular schools are found in some cities for pupils with defective hearing or sight, or with physical handicaps, and for the mentally-retarded or psychopathic, whenever it appears that they will not benefit from the regular classes.

The Federal Government and Education

According to the British North America Act, the Federal Government is responsible for the education of: nearly 180,000 Indians, of whom about 46,600 are students and a third of whom attend provincial or private schools; about 12,000 Eskimos of whom 2,400 some young people are in boarding schools; other children in the Yukon and Northwest Territories; inmates of penitentiaries; and members of the armed forces and their children at military stations within or outside Canada.

Years ago the Federal Government, in order to ensure a supply of qualified workers, provided grants for agriculture and vocational education.

Today, the importance of manpower training and development cannot be overemphasized, for youth and for some adults, especially married women, who will join the labour force for the first time, and for many workers already in the work force who have been technologically replaced or who should be upgraded. The Federal Technical and Vocational Training Assistance Act of 1960 increased federal grants to vocational-technical education distributed among nine programmes, covering: (1) technical and vocational programmes in high schools; (2) technical institutes, and trade schools; (3) programmes for the unemployed and disabled; (4) programmes for technical and vocational teachers; (5) training programmes in co-operation with industry; (6) student aid to nurses in training; and (7) college students. Before March 31, 1963, grants covered 75 per cent of Canada's capital expenditure programmes.

Manpower and Education

Goals of education are dictated by conditions prevailing in the society the education system serves and by the demands laid on the system by society. Canadian education goals are changing today, to become more exacting year by year. No longer, as in pioneer days, do we consider an elementary-school education adequate for the majority, a high-school education necessary for a minority of the population, and college education necessary for the few. No longer is a second language a frill, science second to arts and reserved for a minority, and good health and a willingness to work adequate recommendation for employment.

The radical change in manpower needs in Canada at present has resulted from a number of movements, such as the increase of mechanization in farming, fishing, logging and mining, where investment holdings and technical organization have been increased. This has speeded up urbanization and secondary production. Likewise, automation and technological advance are changing the demands for manpower and the changes and increases have been so rapid that the schools, colleges and universities have not been able to keep pace with the demand. Today, we have both a fairly high rate of unemployment and a fair number of unfilled jobs.

The impact of changing social and economic conditions is having a tremendous impact on education. In addition to clamour for change, and a willingness to try new methods, there are rising expectations manifest throughout the systems. The most easily seen demand on higher education is for expansion in the number of places, but the other needs are at least of as much importance. Progress, however, is limited by inertia and by vested interests in the maintenance of the status quo.

Vocational and Technical Education

Interest by the Federal Government in ensuring an adequate supply of trade and technical personnel dates back almost half a century, to the first grants made to agriculture under the Agriculture Instruction Act of 1913 and to the Technical Education Act of 1919, which introduced the principle of matching provincial capital expenditures. Though interest in vocational education increased somewhat over the years, only recently has it been generally recognized that a serious shortage of training facilities and effective technical and vocational programmes has hampered economic advancement and production. Increased urbanization, expansion in technology and secondary manufacture, and greater interest in school "dropouts" who lack training and have, in any case, insufficient education to benefit by it, will influence Canada's education efforts. The realization that the country can no longer count on immigrants to provide the necessary skills has served as a stimulus to greater effort.

The current federal-provincial agreement (the Technical and Vocational Training Agreement, operating from April 1961, to March 31, 1967) provides that the Federal Government will reimburse the provinces for 75 per cent of the cost of buildings and equipment for vocational training. There are the following programmes under this agreement: technical and vocational courses in secondary schools for pupils spending 50 per cent or more of their time in

the vocational field; training as technicians for post-secondary students; trade and other forms of occupational training for young people about to enter the world of work, employed persons wishing to improve their skill, and persons in need of retraining; training in co-operation with industry; training of the unemployed; training of the disabled; training of vocational teachers; training for federal departments and agencies; student aid; and apprenticeship training.

The pattern of vocational education and training varies from province to province, but three basic types are evident -- trade schools, technical and composite secondary schools, and post-secondary technical institutes. The trade and technical schools, except for private institutions, are under the provincial departments. The apprenticeship training provided is basically learning on the job supplemented by class instruction on a full-time basis for periods from three to ten weeks a year, or evening classes at trade schools. In addition, there are a number of large companies that operate their own apprenticeship programmes, with no help from the provincial governments.

Attention has recently been directed to increasing the number of technicians, who, with engineers and scientists, are much in demand. Training in industry has been increasing rapidly and accelerated expansion can be expected for some years. It is likely that educational thinking will, in the years ahead, be directed more toward providing situations for life-long education, with greater emphasis on retraining, rehabilitation, refresher courses, upgrading, and education for leisure, hobbies, and cultural pursuits.

Teachers

About one out of every 25 in the work force is a teacher and about a quarter of the total population is enrolled in formal education courses or classes. During the last half of the 1950s, there was a critical shortage of teachers at the elementary and secondary levels. The situation is now somewhat better, the shortage being limited to well-qualified personnel, and there is considerable effort to raise the requirements for certification, including an increase of professional training from one to two years. However, a shortage is now becoming evident at the university level because of increased enrolments. It is predicted that the number of teachers required at the higher-education level will double in less than ten years, and that the problem of recruiting specialists with advanced degrees and other desirable qualifications will increase considerably.

Most provinces require candidates for teaching in elementary schools to have high-school completion or better, with at least one year of professional training at a teaching college in or outside a university. The trend is toward providing the courses on a college or university campus and, in the Western provinces, candidates enter a four-year college, though they may withdraw temporarily after two or three years with a temporary certificate. Their college year generally consists of five subjects, of which four are in arts and science and the other in education.

At the secondary level, efforts have been made to ensure that all teachers are university graduates with an additional year of professional training; where possible, they have been required to be honours graduates or specialists. In some provinces candidates enroll in a four-year university course, like elementary teachers, with one-fifth of the subject-matter professional training and the rest being in the selected teaching areas.

During 1963-64, there were 185,273 teachers and principals in the public elementary and secondary schools. Of these, 64 per cent were women and, of the women, 56 per cent were married. Outside Quebec, for which data were not available, 27 per cent of all teachers taught secondary grades only. About three-quarters of the secondary teachers had one or more university degrees, compared with better than one in ten for the elementary teachers. The average teacher had been teaching seven or eight years and had held his or her present position for three or four years.

In the colleges and universities, staff members are selected mainly because of their academic qualifications and knowledge of research. For the higher ranks, a record of publication is also a factor. It is generally assumed that a professor will communicate his knowledge to the class successfully without special professional training. In 1962-63, 45 per cent of university teachers held a doctorate, 33 per cent had a master's degree and the remaining 12 per cent, with a few exceptions, employed for special duties, were graduates.

During 1963-64, there were 124 normal schools, teachers' colleges and university faculties engaged in teacher preparation (107 in Quebec), and 25 degree-granting schools or faculties that were an integral part of colleges or universities.

Most teachers are now paid according to a local salary schedule that provides for a basic beginning salary with increments for superior qualifications, experience, and additional responsibilities. University teachers are likewise on salary schedules, though, in exceptional cases, a professor may be paid as much as is necessary to retain his services.

Most teachers belong to a professional association and have reasonable security. The work of these associations is divided between efforts concerned with pay, security and the like, and the professional development of the staff. All associations publish a professional journal. The number of supervisors and specialists is increasing and, in most provinces, "in-service" training is being used more and more. The largest number of summer-school students continues to come from the teaching ranks, both the salary schedules and opportunities for advancement providing an incentive to such efforts.

Higher Education

Since pioneer days, Canada's English-speaking and French-speaking populations have established institutions of higher education. In the Atlantic Provinces, in some instances, and in Quebec and Ontario, these institutions were generally established by members of a community or church congregation or by

private individuals. In the Western provinces, which were settled somewhat later, legislatures were instrumental in the establishment of universities, and took the responsibility for selecting their sites, providing support for them, and, to some extent, deciding what services they should provide.

In the present era of rapid communication and travel, of larger economic areas and greater urbanization, changes are being introduced rapidly. It is customary for a provincial legislature to make grants to all provincial universities, and federal moneys are distributed to public and private institutions, church-affiliated or not.

Because of the amounts of money involved, predictions that the number of university places required will double during the next decade, and increasing interest in university graduates and research (among other things), several provincial governments are considering appointing, or have already appointed, a deputy minister or assistant to concern himself with the universities. His staff will co-ordinate the services provided by all the province's institutions, and will study the need of institutions and places for expansion and problems of finance, at the same time avoiding interference with the autonomy of universities in subject matter, internal organization and so forth.

Among the many problems of concern to university administrators today are: co-ordinating the work of graduate schools and expanding their offerings; developing more courses and programmes of Oriental studies in the interest of better East-West relations; processing multiple applications for scholarships and entrance; determining more effective means of selection for university entrance; the 12-month operation of universities; and the introduction or expansion of junior and community colleges. Most institutions in fact operate summer schools, and some have "inter-sessions" as well; but the suggestion for 12-month operation is that there be three equal divisions of four months each, with provision for short recesses. One new university, Simon Fraser, plans to provide year-round courses, and another, Waterloo, already provides alternate study-work periods of three months for two groups of engineering students and will use the same organization in other appropriate areas, requiring one additional year for a degree.

There were about 370 institutions of higher education in Canada in 1965. Of these, about 39 were conferring degrees and 12 were holding their powers in abeyance. Included were provincial institutions, institutions possessing religious affiliations and special institutions giving degrees in theology only. The others included a variety of provincial, federal, church-affiliated and private non-denominational colleges of arts and science, professional and junior colleges and collèges classiques, which do not grant degrees. The large French-language universities, patterned on the universities of France (Montreal, Laval and Sherbrooke), are all in Quebec. The University of Ottawa and St. Joseph's University, New Brunswick, are bilingual. The English-language universities resemble those of Britain, Germany and the United States. They are adapted to Canadian needs, and provide instruction in English only, though they offer courses in other languages.

To enter an English-language university, a student must have graduated from high school with senior matriculation (or, in some cases, junior matriculation, which requires a year less). Graduation in arts or pure science usually follows three years after senior matriculation, or four years for the student who takes an "honours" course with specialization in one subject or two related subjects. Requirements for entrance to professional courses vary somewhat depending on the faculty, and may follow completion of all or part of an arts course. Such courses may require from three to seven years for graduation.

Opportunities for graduate study in one or two fields at least are now available in most universities, while the larger institutions offer advanced work in many faculties. The master's degree is obtained one or more years after completion of a bachelor degree with honours, and the doctorate after an additional two years or more.

In the French-language universities, the majority of students enter with the baccalauréat ès arts obtained in the collège classique, and continue towards a maitrise ès arts or a licence, which they can earn in one year, or a doctorat, which requires at least two additional years. For a baccalauréat in science, engineering and commerce, candidates are admitted from the public secondary school, as well as from the collège classique. The trend is toward more entering from the secondary schools.

Enrolment in Canada's universities and colleges during the autumn of 1963-64 was estimated at 158,270 for full-time students, with about as many taking part-time courses offered by the university -- evening, extra-mural, summer or other. In addition, there were a quarter as many full-time pre-matriculation students enrolled during the regular session, and almost half as many in all other courses, including those offered during the regular session, at summer school, and extra-murally. More than 30 per cent of the university-grade students, and a greater proportion of all others, were women. During 1963-64, almost 28,000 students were granted their first degree, 3,780 earned the master's degree and 520 the doctorate. About 11 per cent of all undergraduate students enrolled in education courses during 1963-64. Teachers constituted the largest part of the summer-school and extra-mural students.

Financing Canadian Education

Since 1944 the percentage of Canada's gross national product spent on education rose from 1.4 in 1943 to 5.0 in 1961, and it has continued rising. In 1961, 30 per cent of municipal, 28 per cent of provincial and 2.3 per cent of federal expenditure went for education. Total expenditure for formal education and training and related educational activities actually amounted to over \$1,912,600,000. If this appears high, it should be remembered that it provides for professional service and daily care, five days a week and 200 days a year, for a quarter of the population.

Federal expenditures on education included sums for the education of the Indians and Eskimos, members of the armed services and their children and some dependent children of the war dead and veterans. Other federal sums are contributed to the provinces on a \$2 per capita basis and distributed

among the universities by the Canadian Universities Foundation, according to full-time enrolment. In addition, the Federal Government has made provision for loans to enable the universities to build residences for out-of-town students and guaranteed to needy students loans of up to \$1,000 a year from one to five years, free of interest until after graduation. During 1964-65, the first year of this programme, the \$4 million allocated was rapidly exhausted.

Various federal departments and councils, such as the Departments of Health and Welfare and Agriculture and the National Research Council and Defence Research Board, provide grants for research to university professors and to graduate students.

The Vocational and Technical Branch of the Department of Labour, under agreement with the provinces, makes grants available for the following purposes: vocational courses in secondary schools; technical institutes, adult trade and other occupational training and retraining, including apprenticeship; management education, including supervision, technical analysis and services; and administration. Money is provided to assist with capital projects, equipment, current expenditure on vocational technical programmes and teacher training. Such contributions are aimed at ensuring a more highly-skilled work force. The activities of the Branch are administrative, supervisory and consultative, and stress the co-ordinating of training activities provided for the ten provinces. From 1961 to 1964, \$341 million was contributed by the Federal Government and \$219 million by the provincial governments to erect 14 new technical institutes and 52 trade schools, and to enlarge many others and bring the number of vocational high schools to 305. This provided a total of 153,371 student places for trade and technical trainees.

In addition to their expenditures on such provincial schools as teachers' colleges, trade and technical schools, and special schools for the deaf, the blind and "problem cases", the province makes grants to school-boards, provides for services to and supervision of the schools, and contributes to audio-visual aids, guidance, curriculum studies, textbooks, school supplies and teachers' pensions.

There is considerable variation in the grant schemes used by the provinces. In the beginning, most provinces used flat and incentive grants of one sort or another, based on such considerations as number of teachers, enrolment, days in session and attendance. Special grants were introduced as an incentive to such items as purchasing special equipment or serving hot school lunches. Next, attempts were made to introduce an equilization formula specially designed to help poorer districts. Recently, there has been an increase in the number adopting some form of foundation programme under which the provincial authority establishes a minimum level of services that local authorities are to provide as an acceptable minimum. Districts may levy for more revenue and provide more services, but not fewer. The province usually decides the size of its contribution, and then strikes a uniform rate for all districts to use on equalized assessments. The provincial contribution pays any difference between the amounts determined and collected in any district and, in addition, distributes an equitable proportion among the schools.

Determining an equitable sharing of costs between the province and districts poses a problem, especially during the first few years.

Private schools are normally supported by student fees, endowment income, contributions of a church congregation, and a variety of gifts and support from sponsoring bodies. A few are self-supporting.

Universities and colleges at present receive about 30.5 per cent of their moneys from student fees, 13 per cent from the Federal Government and 44 per cent from provincial governments, the remainder coming from a variety of sources including endowments, contributions by religious organizations, and other gifts. Plant funds may come largely from building campaigns and grants from corporations, which supplement grants from the province and the Canada Council and loans from the Central Mortgage and Housing Corporation.

School Buildings

The school administrator will be continuously involved in planning and designing new schools as enrolments rise and as new methods and courses are introduced. Considerations of functional architectural cohesiveness, beauty and costs must be weighed with the provision of facilities for team-teaching, audio-visual instruction, air conditioning and so on.

Although the actual number of public schools has remained fairly constant for some years, this fact obscures a surging movement towards the erection of new and larger structures and the closing of isolated one-room schools. The trend is towards the construction of buildings of one and two storeys of modern design and functional plan. These are well-lighted, well-ventilated, and make use of indirect and bilateral lighting, folding or otherwise movable partitions, ramps instead of stairs, rooms planned for special activities or projects such as television and projection, music appreciation, industrial arts, commercial studies and many others. Painting and lighting are undertaken with consideration of the psychological effects of colour and the elimination of glare.

At the first "Canadian Education Showplace", staged in Toronto in 1965, school suppliers displayed the latest in supplies and equipment and educational products. In addition, there was an exhibition of school architecture, showing a selection of the new buildings.

There are still, however, some desolate frame structures in thinly-settled areas, and dingy, over-crowded buildings on small city plots. This is true at all levels. Colleges, for example, range from crowded quarters to well-planned, roomy, permanent structures on broad campuses. Some, finding themselves cramped in the heart of a growing city, have made a fresh start in the suburbs; others have added storeys or expanded through expropriation. The problem of providing adequate facilities in colleges will become increasingly acute during the next ten years or so, and fund-raising campaigns will continue to be necessary.

National Organizations

Throughout Canada there are a great many associations, organized on a local, provincial or national scale, either wholly or partially interested in furthering education. Some are concerned with local activities, some with provincial and some with Canada-wide activities, and others are concerned with problems abroad. A national federation usually has a permanent office and staff and produces a professional magazine. Such federations coordinate the work of provincial institutions. Among the better-known organizations are the following:

The Canadian Education Association dates back to 1892. It is supported by the ten departments of education, by school boards and by individual members. It maintains an office in Toronto, published Canadian Education and Research Digest, acts as a clearing-house and maintains liaison among the provincial departments.

The Canadian Teachers' Federation, established in 1919, now enrolls over 125,000 members. It also acts as a clearing-house, undertakes research studies and maintains liaison among the provincial associations of which there are one or more in each province.

The Canadian School Trustees Association and the provincial associations hold annual conferences, publish professional magazines and have fostered research in school finance.

The Canadian Home and School and Parent-Teacher Federation holds annual conventions and provides leadership for provincial affiliates. (The chief French-language organization with national scope is l'Association canadienne des éducateurs de langue française. It holds annual conventions, has produced reports and conducted research.)

The National Conference of Canadian Universities and Colleges acts as a meeting ground for university personnel, a research and information centre and an agency for collective action through committees, etc. (The Canadian Universities Foundation, a related body, is responsible, among its other duties, for the distribution of federal grants.)

Fédération des collèges classiques has recently established an office in Montreal, and the Canadian Association of University Teachers has established one in Ottawa.

The Canadian Association for Adult Education serves as a clearing-house, holds radio forums and conferences and publishes Continuous Learning. Its permanent office is in Toronto. (Its counterpart in Quebec, l'Institut canadien d'éducation des adultes, serves the same functions for French-speaking adults.)

The Canadian Council on Research in Education has an executive body that is representative of most of the bodies noted above that are interested in research. It was established to promote and foster research and to maintain liaison throughout the field. It is expected that it will develop a regular publication programme; so far, it has made occasional reports available.

Looking Ahead

In Canada, as throughout most Western countries, and many others, education is undergoing a quiet revolution. In response to social, economic and political pressures, its role is changing so that it can contribute more to economic advance and social progress. At one time a distinct line was regarded as separating the academic and professional from the world outside; today this has almost disappeared. With increased emphasis on trade and technical education, closer liaison between municipalities and school boards for finance, more university people serving part-time outside the university or on loan to business or government, and contracted research being undertaken by the universities, the universities and schools are returning to the community. Part-time and refresher courses will increase this trend, as will participation of the National Film Board, the Canadian Broadcasting Association, libraries and museums.

There are both quantitative and qualitative major expansions. The Canadian population has been increasing now for a full generation, so that, while members of one generation are swelling university ranks, members of the next are pattering to kindergarten doors. Although the birth-rate is no longer at its peak, the median age for marriage having dropped, the present increase is appreciable. Actually, Canada's population is expected to increase by about 22 per cent during the 1960s and to pass the 20-million mark in 1966. The percentages of both young and old will increase disproportionately. Added to the expected increase in actual numbers is the tendency for youth to stay longer in school or to return at both the high-school and university levels as more services are provided.

At the same time, an "explosion" in scientific knowledge has raised many problems concerning the best use of the time of students. Attempts to update and streamline mathematics and science are observable in the new mathematics, new physics and so on, which emphasize structure and are aimed at increasing the power of the student in the subject. It is likely that curricular content and organization will undergo considerable development during the next decade.

Both the economic and social structures are undergoing metamorphosis, and the changes are affecting the demands on education and the role it might perform. Most of the planning undertaken so far is influenced more by economic than social needs, in part because economic data are more easily come by. It is likely that progress will result in the social areas from rural-urban movement, increased urbanization, crowding, urban renewal and so on.

Efforts at the elementary-secondary level will be aimed at providing greater opportunity with allowances for individual differences, at obtaining functional mastery of a second language, making better use of modern audio-visual aids and other learning devices, and ensuring that all children leave school with an educational background sufficient for training on the job or possess competence in some job area adequate for employment.

At the post-secondary level there is need for expansion of technical institutes, and the number of junior colleges will be increased considerably. Community colleges may be established as the demand for post-secondary education grows with increased automation and leisure.

At the university level, in addition to increasing the number of institutions and places, consideration is being given to establishing better university entrance measures, eliminating wastage in some courses and introducing greater variety in the courses offered -- such as an expansion of facilities for Oriental studies. The graduate schools have been growing faster than the under-graduate, but a good deal more expansion will occur.

There have been more innovations introduced during the past decade than in any previous ten years, and there is every reason to expect that considerable progress will be made in the years to come.

RP/A

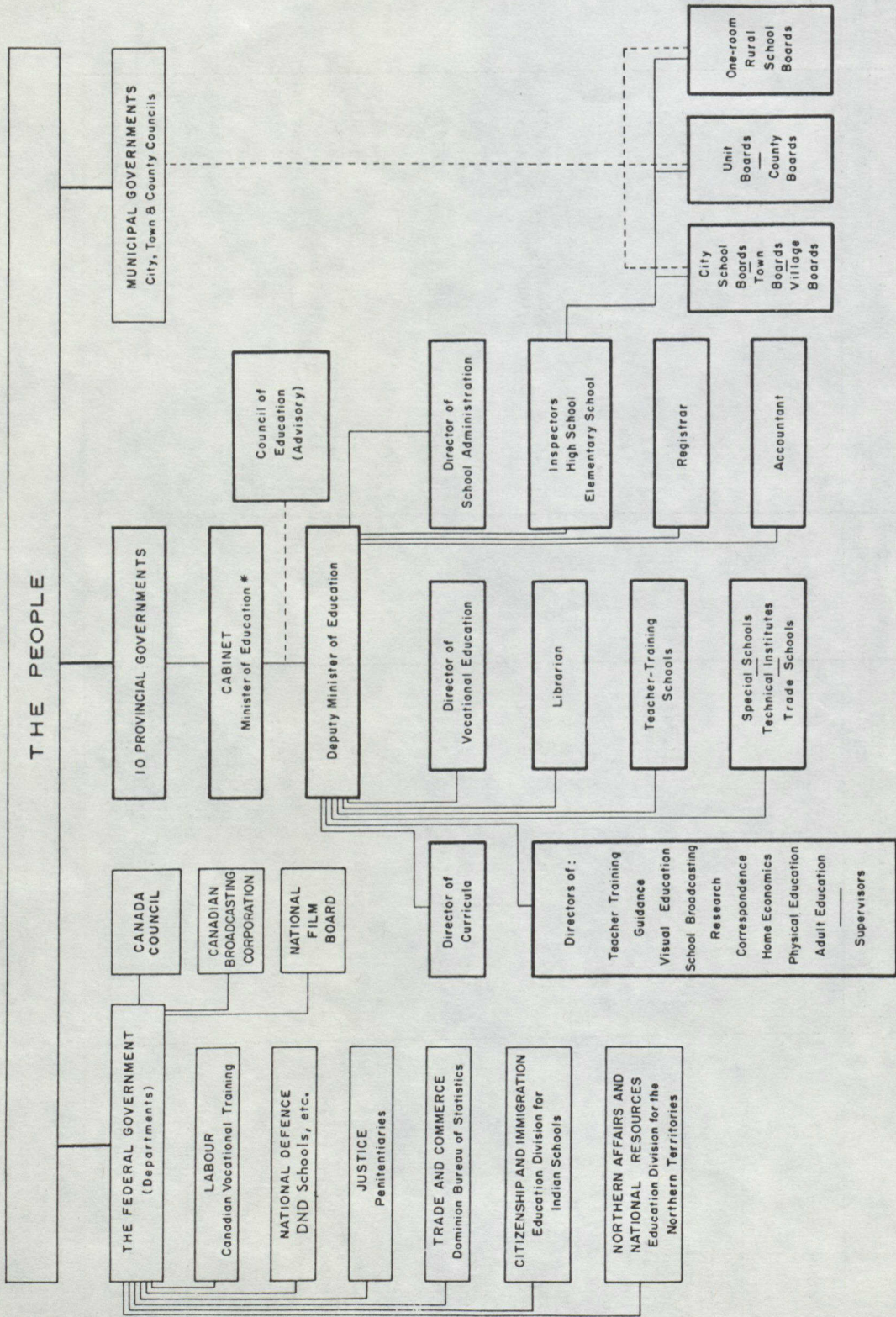
Summary of Education Statistics, Canada, 1953-54 and 1963-64

	1953-54			1963-64				
	Schools	Numbers of		Population June 1954	Schools	Numbers of		Population June 1964
		Teachers	Pupils			Teachers	Pupils	
Estimated population: Ages 5-19 20-24				4,061,100 1,115,600				6,469,100 1,692,800
<u>Full-Time Courses</u>								
<u>Elementary Secondary:</u>								
Public and separate schools(1)	30,081	101,951	2,796,809		23,017	179,859	4,546,111	
Schools for Indians and for Eskimos	504	728	31,247		476	1,623	38,115	
Schools for the blind	6	75	568		6	100	772	
Schools for the deaf	9	191	1,545		13	349	2,561	
Private schools	945	6,057	115,607		1,207	12,380	202,872	
<u>Higher Education:</u>								
University grade - full-time	283	6,869	60,046		365	12,000	179,000	
part-time		4,529	2,000			7,540	38,750	
<u>Teacher Training:</u>								
Teachers' colleges	118	1,246	12,072		124	1,476	23,821	
Faculties of education(2)	24	224	2,265		25	506	12,970	
<u>Trade and Technical:</u>								
Public - Programme 3(3)	)	)	)		..	..	34,593	
Programme 5	)	)	)		..	..	48,923	
Programme 6	)	)	)		..	..	2,863	
Institute of Technology					35	2,000(e)	14,492	
Private - Trade schools	..	..	..		..	622(4)	13,477(4)	
Business schools	222	816	18,593		257(4)	1,087(4)	20,214(4)	
<u>Totals</u>								
<u>Part-Time Courses for Adults</u>								
Public schools	..	..	..		..	..	727,356(4)	
Universities and colleges					88(4)	..	207,189(4)	
Private schools	..	..	14,853(5)		..	..	65,908(4)	

(1) In the provinces and the Territories and including National Defence schools overseas
 (2) Also included under Higher Education
 (3) Programmes under the Federal-Provincial Agreements of 1961:
 Programme 3 - Trade and other occupational training
 Programme 5 - Training of the unemployed
 Programme 6 - Training of the disabled
 (4) Data for 1962-63
 (5) Business colleges only
 (e) Estimate

ADMINISTRATION OF EDUCATION

1964



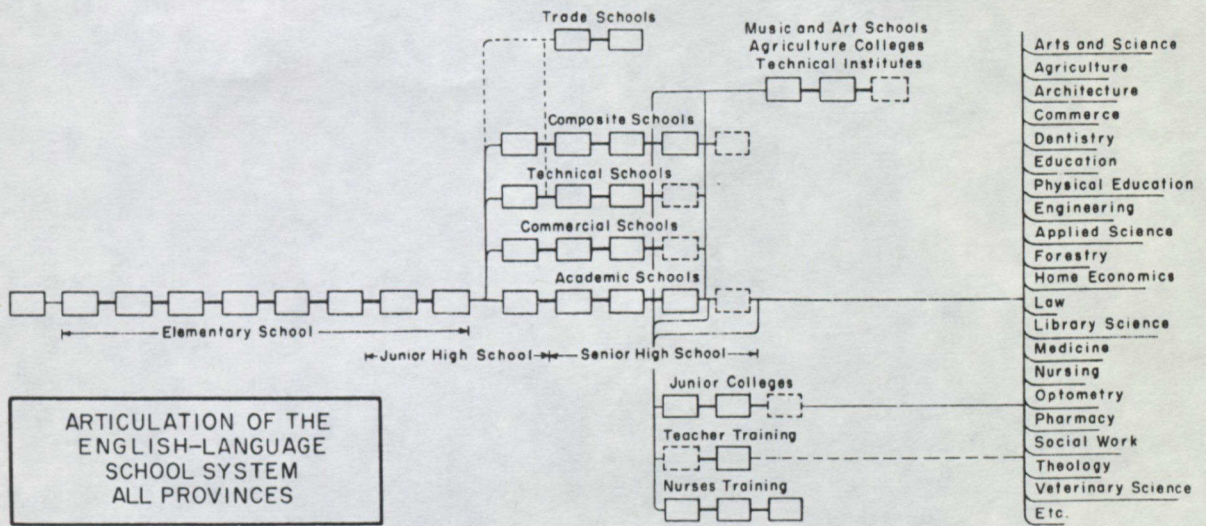
*A TYPICAL PROVINCIAL DEPARTMENT - QUEBEC AND NEWFOUNDLAND ARE LEAST REPRESENTATIVE.

ELEMENTARY

SECONDARY — POST-SECONDARY

HIGHER

1964

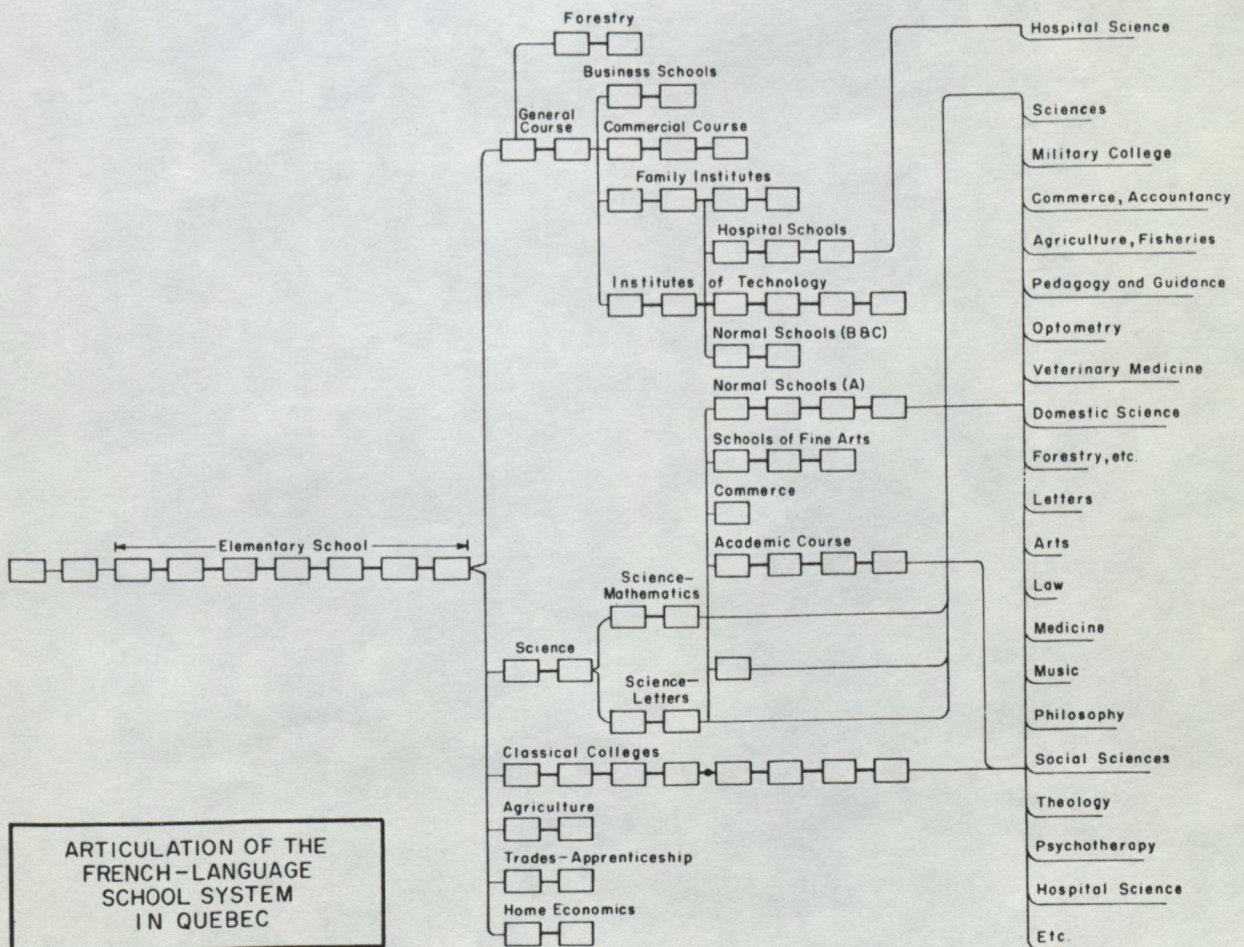


ARTICULATION OF THE ENGLISH-LANGUAGE SCHOOL SYSTEM ALL PROVINCES

ELEMENTARY

SECONDARY — POST-SECONDARY

HIGHER



ARTICULATION OF THE FRENCH-LANGUAGE SCHOOL SYSTEM IN QUEBEC

