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An assessment of the present status of the small high school in Alberta, Canada, a prediction of the probable future of rural high schools of various sizes, and the generation of recommendations for the improvement of the educational opportunities provided by necessarily existent small high schools were the objectives of this investigation. The organization of Alberta high schools and their programs are discussed historically. The present status of the small high school is presented which includes a discussion of the program it offers; the achievement and satisfaction of its students; the qualifications, experience and work load of its teachers; the facilities it is provided with; and the leadership and consultative services it receives. Also, the typical small high school community is described. Recommendations are presented with respect to the following: the necessity and feasibility of maintaining all presently existing small high schools; the strengthening of necessarily existent small high schools; and the implementation of proposed improvements. It is specifically recommended that multi-campus high schools be established where they are geographically feasible throughout the province, and that ways and means of capitalizing upon the strengths of smallness and overcoming the weakness of smallness be considered. (SW)

THE SMALL HIGH SCHOOL IN ALBERTA

A REPORT OF AN INVESTIGATION

by

LAWRENCE W. DOWNEY

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FOREWORD

There is among professional educators, in this country and elsewhere, a rather widespread belief that recent and impending changes in secondary education make it virtually impossible for the small high school to provide genuinely effective educational services. A new campaign for further centralization of high schools is following upon that belief.

There is also, however, among the citizens of hundreds of small communities throughout the country, a conviction that the community high school, small as it may be, is an essential institution. A counter-campaign against further centralization grows out of that conviction.

The study reported in this monograph was initiated by the Alberta School Trustees' Association in the hope that a systematic inquiry into all aspects of the small high school issue might produce new insights which, in turn, might help to resolve the conflict and, more important, point up procedures for ensuring that adequate educational opportunities are provided for the rural students of the province.

The team of investigators have made every effort to maintain objectivity. Data were gathered and analysed as scientifically as we knew how. The recommendations that grew out of these findings, though in part the products of our best judgement, are, we think, logical and reasonable.

There is surrounding the small high school issue a good deal of emotion; we have done our utmost to rise above this emotion, and assess the situation objectively. We hope that our readers will do likewise.

Some readers may be disappointed with the lack of prescriptive recommendations in this report. We have no apology. For we are convinced that there are no easy, generally applicable remedies for the ailments that beset small high schools. Each situation is somewhat unique. Accordingly, many of the recommendations take the form of suggestions for further study and alternative courses of action, to be decided upon in light of local conditions.

This report should be taken as a beginning—not an end. If it provides a basis for further thought, study, debate, and innovation in rural secondary education, it will have served its purpose.

L. W. D.

ACKNOWLEDGEMENTS

It is difficult to give proper credit for all the contributions that are made to an elaborate investigation such as this. Undoubtedly, however, there are many debts to acknowledge.

The Alberta School Trustees' Association initiated the study and provided the resources needed for its conduct.

A Policy Committee made up of Mr. N. K. Leatherdale (chairman), Dr. G. L. Berry, Mr. J. Chomany, Mr. V. R. Nyberg, Mr. S. Schwetz, Mr. E. W. Bardock, Mr. H. C. McCall, and Mr. T. C. Weidenhamer offered advice, criticism, and guidance throughout the investigation.

Members of the Department of Secondary Education, including Dr. G. L. Berry, Dr. G. M. Farmer, Dr. J. O. Fritz and others, assisted, not only in the gathering and analyses of data, but also in the design of the inquiry and in the organization of the report.

Graduate students, including Mr. L. Dawson, Mr. R. Enders, Mr. N. Gaelick, Mrs. K. Gavinchuk, Mr. B. Harrison, Mr. E. Jones, Miss T. MacIsaac, conducted individual studies which were incorporated into the report.

Many principals, teachers, superintendents, board members, and interested citizens were most cooperative in responding to our questionnaires and in responding to interviewers' questions.

The directors and participants in the Catskill Area Project and the Western States Small High School Project made available to us material that has been produced over the years and also offered useful advice as we planned our study.

Finally, Miss Edyth Olson gave generously of her time and energies in serving as secretary and accountant throughout the project and in the preparation of the final manuscript.

The efforts of these and other persons who contributed in any way to the project, deserve the gratitude of all educators and citizens who may now share in the results of the investigation.

L. W. D.

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INTRODUCTION

The investigation to be reported here had three general objectives: first, an assessment of the present status of the small high school in Alberta; second, a prediction of the probable future of rural high schools of various sizes; and third, the generation of recommendations for the improvement of the educational opportunities provided by necessarily existent small high schools.

The study received its impetus from the conflicting opinion that exists regarding the quality of services provided by the small high school and from the growing controversy between those who would disestablish most of the existing small high schools and those who would keep them in operation at any cost.

There can be little doubt that, today, students who attend small, rural high schools are in many ways "disadvantaged". It can be argued, however (and quite convincingly). that the small high school has many strengths–at least potential strengths. Whether (and how) these potential strengths can be sufficiently developed and exploited to offset the inherent weaknesses of the small high school is the question to which this inquiry addresses itself.

To be fully appreciated, our problem must be viewed in historical perspective. The Alberta high school is, in many respects, unique and is the product of a particular process of evolution. Though its beginnings around the turn of the century were rather humble, secondary education in this province has today developed into an elaborate and complex system.

Are the elaborate opportunities for secondary schooling which one now finds in the urban areas needed to meet the demands of today and tomorrow? If so, what is to happen to the rural areas? How can they keep pace? Is some bold new plan required? Or do present demands simply argue for the extension and logical development of trends which were set in motion in Alberta years ago?

In an attempt to shed some light on these and related questions, and, in an attempt to provide some sort of backdrop for the report to be presented here, we begin with a very brief historical review.

I. THE ORGANIZATION OF ALBERTA HIGH SCHOOLS IN HISTORICAL PERSPECTIVE

Origins of Education in Alberta (Before 1905)

The very first educational institutions in Alberta were established by missionaries whose primary purpose was undoubtedly the promotion of religions. In 1842, Father Thibault founded St. Anne's Mission, but in actual fact spent most of his time and energies, not in education, but rather in attempting to win the trust and goodwill of the Indians. Later, the Grey Nuns organized a number of mission schools, but probably the first mission establishment to do regular school work, as we now know it, was the one founded in Edmonton in 1862 by Father Lacombe. Various Protestant missionaries also contributed to the pioneer work in education; the Methodist missionaries, for example, established a school at White Fish Lake shortly after Father Lacombe's school was organized in Edmonton.

Great as were the efforts and sacrifices of the missionaries, however, little real progress was made in education during their era. In fact, it may be said that the first great impetus for educational progress in the West came during the period of immigration of the 'seventies and 'eighties.

With the influx of immigrants, the north west became more than a source of furs. In 1870 Rupert's Land and the North-West Territory became a part of the Dominion of Canada; the North-West Territories Act of that year provided a government; and, thereafter, the Territories embarked upon an era of serious settlement and development.

During the early years of the Territories, the state took little or no interest in education Support came only from the missionaries and willing parents. Indeed, the government adopted a pronounced "hands off" policy toward education and, in so doing, left major responsibility with parents and encouraged the development of separatism in education. Note the following clause from the new Territories Act of 1875:

> When, and so soon as any system of taxation shall be adopted, in any district or portion of the North-West Territories, the Lieutenant-Governor by and with the consent of the Council or Assembly, as the case may be, shall pass all necessary ordinances in respect to education; but it shall therein be always provided that a majority of the ratepayers of any district or portion of the North-West Territories or any lesser portion or subdivision thereof, by whatever name the same shall be known, may establish such schools therein as they may think fit, and make the necessary assessment and collection of taxes therefor, and further that the minority of the ratepayers therein, whether Protestant or Catholic, may establish separate schools therein, and that, in such latter case, the ratepayers establishing such Protestant or Roman Catholic separate schools shall be liable only to the assessments of such rates as they may impose upon themselves in respect thereof.

It was not until 1877 that the idea of state aid to education emerged. In that year, a petition for funds to construct a schoolhouse was presented to the Council by the St. Laurent area, but was denied on the grounds that there were no monies available for education. Just a year later, however, the Lieutenant-Governor included in his estimates the grand sum of $2000 for educational purposes.

Because financial problems remained acute, schools other than mission schools were very slow to develop. The first to emerge was in Edmonton. It was also from Edmonton, and largely through the efforts of Frank Oliver, that the proposal to establish a Territorial school system originated. In 1884, the "Ordinance Providing for the Organization of Schools in the North-West Territories" was passed.

This ordinance caused great activity in education. It provided the machinery for creating school districts and for regulating school operation. The old financing system of personal subscription gave way to compulsory taxation and as a result elementary education began to flourish.

Interestingly, it was the need for ever-increasing numbers of trained elementary teachers during this period that provided the first impetus for the establishment of secondary education on a systematic basis. In 1888, the Territorial Board of Education authorized the formation of high schools to offer high school courses and also, and more important, to take care of the training of elementary teachers wherever there was a demand.

In the area which is now Alberta, there were, by 1890, four high schools located at Edmonton, Calgary, Medicine Hat, and Lacombe. However, normal school training was not provided in all these schools and secondary subjects appear to have been taught fitfully.

Emergence of Rural High Schools (1905-1936)

When in 1905, the Province of Alberta was formed, it included 602 organized school districts. The Alberta Act specified the Ordinance of the North-West Territories as the school law of the new province.

In rural areas, little provision was made at this time for secondary education. The one-room school could not cope with it effectively, and most of the local boards assumed that their responsibilities ceased with the provis on of elementary education. Only the children of parents who were willing and able to pay the costs of transportation, lodging and tuition received any secondary schooling.

In 1913 the first great advance in opportunities for secondary education in rural Alberta occurred, when the first consolidated school district was formed with Warner as its center.

Thereafter, the consolidated district became very popular. It was formed by two to five local districts combining, with each appointing a trustee to the consolidated district board.

The consolidation movement spread quickly and greatly influenced secondary education in the rural areas. Consolidated schools were better able to attract qualified teachers; they were better able to offer high school instruction; and they were better able to provide efficient management.

As a result, the over-all quality of education improved and enrollments increased rapidly at all levels.

To give further impetus to the consolidation movement a Secondary Consolidation School Act was passed in 1921, providing for the union of two or more districts for high school purposes only. Initially this caused some further strengthening of the high school programs in some areas. Unfortunately, however, the government—recognizing the increasing emphasis upon secondary education—inaugurated a special grant for schools providing education beyond grade VIII. This grant had the effect of inhibiting further unionization because small districts typically chose to introduce

post grade VIII programs locally and keep the grant for themselves. After a period of unfortunate experience, the grant was abolished in 1932.

The rural schools of the province experienced great difficulties during the depression. Expenditures were curtailed; needed repairs were postponed, and as little as possible was spent on equipment, supplies, and libraries. Indeed, many districts could not meet operating costs and even allowed teachers' salaries to fall in arrears.

In 1934, a special committee was established by the Legislators to study education in rural Alberta and to make appropriate recommendations. The Committee's chief recommendation was that Alberta establish "the larger unit of administration." After some study of the committee's report, the Department of Education published the document. **What Is And What Might Be in Rural Education in Alberta.** This document led to the passing in 1936 of a new section of the School Act outlining procedures to be followed in the establishment of larger units of administration.

A new era in rural education began thereafter.

The Struggle for Centralization (After 1937)

The establishment of school divisions marked the beginning of an intensive movement toward centralization of Alberta's educational facilities. By 1949, some fifty-seven divisions had been created by ministerial order and hundreds of local districts had been stripped of their authority.

The division was simply an aggregate of designated school districts each of which maintained a nominal independent identity but each of which came under the authority of the divisional administrative structure.

Though there was considerable variation due to factors of topography, distance, transportation facilities, density of population, and so on, the typical division covered approximately 1500-2000 square miles and included 70-80 districts.

The Division remains to this day the important unit of school organization in Alberta–even though, in many instances, the County structure has been superimposed upon it.

The formation of divisions undoubtedly had its greatest educational impact in the area of secondary education. It so happened that the creation of the divisions coincided with important changes in the high school curriculum. These changes called for greatly improved facilities in terms of library and equipment. So it became almost necessary for the divisions to concentrate their high school facilities in an attempt to provide adequate programs in a few centers rather than mediocre programs in many.

In order to make these centralizations possible, divisions expanded transportation systems and erected dormitories at centralized high school locations.

(The dormitory experiment is an interesting one. For a time these student residences were very popular and flourished throughout the province. However, as road conditions improved making expanded bus routes feasible, and as the cost of living rose making dormitory accommodation more expensive, these so-called "homes away from home" declined in popularity. So, although there were, in 1943, twenty-nine dormitories throughout the province, providing accommodation for over 700 high school students, by 1957 the number had decreased to seven, and finally, in 1964, only three of the institutions remained).

The second world war gave further impetus to the centralization of secondary schools. Many high school teachers left the profession for service in the armed forces. As a result the problem of teacher supply became extremely acute and divisions turned to centralization as a means of partially resolving the problem.

The results of earlier centralization were so gratifying to high school inspectors and other officials of the Department of Education, that a continuing campaign for further extension of the movement was conducted in the post-war years. However, although the divisional organization did encourage centralization of high school facilities, it did **not** enforce it and as the Department of Education's Annual Report in 1960 bitterly pointed out ". . . there are small high schools closely adjacent to one another, but local jealousies prevent their profitable combination."

In the early 'sixties the term "regional high school" came into vogue. In the Alberta context, the regional high school was not conceived of as a facility designed to serve the needs of more than one local educational authority, but was viewed rather as a facility designed to serve as large a portion of a division as circumstances would permit. However, proposed regional high schools were to draw students from several towns and villages. Hence the establishment of this type of high school has been and continues to be bitterly opposed by commercial and civic interest groups in the towns and villages not fortunate enough to be logical choices as sites for regional schools.

The establishment of a Regional High School in Vulcan County was a source of considerable gratification to Alberta educators, as is indicated in the following comment extracted from the 1963 **Annual Report of the Department of Education.**

> . . . Vulcan County has been successful in setting up a regional high school to which students from five small high schools in the surrounding area are conveyed to take advantage of a full program of academic, commercial and general courses.
>
> . . . Such centralization appears to offer the best solution to the countless problems of the small high school, but in many areas such factors as tradition and vested interest prevent boards from taking the necessary action to improve the educational opportunities available to students.

In summary, it might be said that the struggle for centralization of high schools has continued since 1937, and, even today, remains a crucial factor in the politics of education in rural Alberta.

Over the years, officials of the Department of Education have regularly expressed concern over what they perceive to be a dual standard of secondary education throughout the province–one standard for the urban areas and one for the rural. Indeed, there is some evidence that the provincial educational authority is more alarmed over the situation today than it ever has been.

The following comments, extracted from various **Annual Reports of the Department of Education** give some notion of the Department's concern over the years:

> 1. The small high school, with fewer teachers than grades, continues to occupy an important place in Alberta's educational picture, and will do so for many years to come. While some small schools continue to grow and reach the status of standard-instruction-time schools, in other places small high schools are being established where formerly they did not exist. These have resulted from continuing centralizations at the elementary level, which bring to one point enough pupils to justify the establishment of a small high school. (1955)
>
> 2. In 1945 the proportion of classrooms that were found to be in high schools of one or two rooms amounted to 51 per cent. For 1950 and 1955 the corresponding percentages were 24 and 26, reaching 27 per cent in 1956. (1956)

3. The small high school continues to exist in two different kinds of situations. In one, distances are so great between homes and towns that creation of a large high school through vanning is impossible. In the other situation, there are small high schools closely adjacent to one another, but local jealousies prevent their profitable combination. (1960)

4. In recent years there has been a trend toward the centralization of high school services in one or two large, centrally located high schools within a division or county. These schools, serving a high school population of between 200 and 400 pupils, and employing upwards of 10 teachers, appear to be an effective type of non-urban high school, capable of more nearly satisfying the educational needs of students of all levels of ability.

(These regional high schools) . . . are able to provide excellent programs for the matriculation and business education student, and a wide variety of offerings, including several industrial arts and home economics courses, for the general student. (1962)

5. In 1962-63, 268 standard instruction time high schools were operating. Of this number, 46 were three-teacher schools, but the typical non-urban high school employed from four to ten teachers. These small standard-instruction time schools are not undergoing any significant change. Staffing is extremely important and remains a serious problem, as one inadequate teacher can affect so many subjects and pupils . . . the majority of these schools are too small to offer anything approaching a satisfactory program for all students . . . . Schools of this size generally have become stable in pupil population and have all the necessary classroom space—a situation which has introduced an element of rigidity into the organization of high school education in many areas, for it is difficult to justify, from an economic point of view, the creation of a larger high school at one center if two or three others are going to have classrooms standing idle. (1963)

Finally, it should be noted that further arguments in favour of centralized high school facilities have been provided by the recently inaugurated technical-vocational programs.

Many educators hold that a purely academic, matriculation program is appropriate for only about 20% of the high school population. For the remaining 80%, technical and vocational programs—supplemented with a good portion of general education—are to be preferred over the so-called "general program" which has long been regarded by most schools as the only possible alternative to matriculation. But even modest technical-vocational programs are only feasible (and supported by the federal government) in high schools enrolling not fewer than 500 students. For many people, thereofore, the goal has become the establishment of schools of this size in the various areas of the province.

Hence, in recent months, there has been some agitation for the provision of high school facilities on a zone rather than a divisional basis. Indeed, a degree of inter-divisional or zone cooperation is already in evidence. We shall hear more about this development in the future—and elsewhere in this report.

The Current Scene

A combination of various religious, geographic, economic and social factors has led to the development, in Alberta, of a system of secondary education which includes a total of 368 high schools ranging in size from enrollments of fewer than 20 students to more than 2000 students.

There are 92 operating high schools in Alberta that enrol fewer than 40 students; there are 32 high schools enrolling more than 400. Between these two extremes are 137 schools enrolling 40 to 99 students, 68 schools enrolling 100 to 199 students, 19 schools enrolling 200-299 students, and 20 schools enrolling 300-399 students.

If one were to assume (as many people do) that any high school with fewer than 300 students is too small to function effectively as a high school, it would follow that 316 of Alberta's 368 high schools are ineffective schools. (But we have no intention of drawing any such conclusions at this point; further evidence on this matter is needed before any conclusions can be drawn).

Over 65,000 students attended Alberta's 368 high schools during the 1964-65 term. Of these, over 25,000 or approximately 40% attended schools enrolling fewer than 300 students. Over 11,000 or approximately 16% attended schools enrolling fewer than 100 students.

Approximately 3,770 teachers taught high school subjects in Alberta in 1964-65. Of these, over 1000 taught in schools enrolling fewer than 100 students. In these small schools the pupil-teacher ratio approximated 11 to 1 as compared to a ratio of about 22 to 1 in schools enrolling over 400 students.

Obviously the small high school continues to be very much a part of Alberta's educational system.

II. THE PROGRAMS OF ALBERTA HIGH SCHOOLS IN HISTORICAL PERSPECTIVE

Before World War II

In pre-war days, Alberta's economy was largely agriculture-based and most of our young people simply aspired either to find a future on the farms that were likely to pass on to them from their fathers or to find employment, usually of the unskilled variety, in any of the few industries that existed in support of the basically agricultural economy.

Of course, a few young people aspired to the professions—particularly the sons of professionals. These few, basically the intellectual, cultural and economic elite, were destined by birth to a university education, provided, of course, they possessed the intellectual capacity required.

Little wonder that the first secondary education programs to develop were largely of the academic variety, catering almost exclusively to the university-bound student or at least to the student who might be university-bound if he were fortunate enough to have the necessary resources. The failure and drop-out rates at this time were very high. But no one cared much, because the high school program contributed little to the student who was not proceeding to university.

As more and more students of the non-university-bound variety began in the mid 'thirties to remain in school for the secondary phase, "education for citizenship" became the slogan which gave purpose to the secondary schooling which most students received—even though the educational fare was almost the same as that provided for pre-university students.

Eventually, as numbers increased, "education for life" was adopted as a more inclusive guide and the so-called "general education" program was established as an alternative to the matriculation program. The general education program, allegedly designed to prepare young people for effective lives as citizens and workmen, was comprised largely of simplified versions of various academic courses supplemented with a number of "useful" options such as agriculture, typewriting, art, music, bookkeeping, woodwork, household economics and so on. Schools were free to offer

whatever options they wished and so even the small high school was able to accommodate this first program development with comparative ease.

In summary, it might be claimed that the demands of the secondary education program before World War II were not exacting. In the early years of the period, academic pre-university education was stressed and the attendant failure and drop-out rate was viewed with considerable indifference. In the later years of the period, general education was introduced as an alternative to pre-university education, but the perceived inferiority and lack of direction of that program generated little enthusiasm.

Life was simple; the education that prepared young people for life was correspondingly simple. The drastic changes that were to follow soon after the war were not even imagined.

The Demands of the Emerging Era

A new era in Canadian life began shortly after the conclusion of the second world war. In the late 'forties and early 'fifties there began to develop a series of trends which reflected a host of unmet needs and unsatisfied aspirations in society. These trends set in motion a series of forces which over the past two decades, have had a tremendous impact upon the course of education at all levels. Undoubtedly, they will continue to have as great, if not a greater influence in the years to come.

It seems apropriate, then, to include in the considerations which provide background for this study some discussion of these emerging forces as they appear to constitute indications of the the future of secondary education:

1. A demand for universality in education, at least to the end of the secondary phase: Since the war, there has been in our country, as elsewhere, a growing desire on the part of all men to become socially mobile. The individual has become more and more determined to improve his lot, to achieve power and influence, to have a voice in the affairs of man, and to have a good life.

Education has been perceived as the best means of improving the individual's status. Accordingly, more educational opportunity has been demanded, and universal education to the level of secondary education has become one of our national educational policies.

This policy has led to ever-increasing numbers of high school students with an ever-widening range of interests, aptitudes, and abilities. It has been, and continues to be, a serious challenge to the secondary school to accommodate this heterogeneous collectivity of talents and aspirations.

2. A demand for technically-trained manpower. In the past two decades western Canada has shifted from a rural-agricultural society to something of an urban-industrialized society. This shift has been accompanied by tremendous advances in industrial technology with attendant needs for skilled rather than unskilled labor in almost every field of human endeavour.

These needs have been passed on as new demands for the high school. Federal legislation in 1961, encouraging technical-vocational education is a clear indication that Canada expects its high schools to keep pace with developments in technology and to prepare future citizens to play an active role in tomorrow's complex world of work.

3. A new demand for excellence. The keen international competition in the fields of science and technology which began in 1957 with the launching of Sputnik, has led to a new and vigorous demand for quality at all levels of education. The high school's response to this demand is most clearly observable in the recent upgrading that has taken place in the fields of science and mathematics—particularly for matriculation students. In many instances, high school courses in these fields are today as difficult and sophisticated as they once were at the university level. This emphasis upon intellectual rigour has placed new demands upon teachers and has led to a high degree of specialization in teacher education.

Thoughtful educators, in reflecting upon this new demand for excellence, have not been content with the excellence achieved through the upgrading of science and mathematics courses for university-bound students. Instead they have posed the questions, "Excellence for whom? And in what?" The answers are obvious: "Excellence for everyone, in whatever course of studies is being pursued." So the concept of excellence is spreading to fields of study other than the academic subjects and is being applied to students other than matriculants.

As a consequence, the so-called "general program" and the various technical-vocational programs are no longer regarded as mediocre substitutes for academic education, to be reversed only for the intellectually inept and unaroused. Instead, they are regarded as part of an over-all, quality secondary education requiring the same sort of rigor, the same sort of teacher specialization and competance that is required in the new, quality academic programs.

Other demands and forces could be enumerated. But these few suffice to illustrate a point. That point is: secondary education has become a highly complex, a highly demanding, and a most crucial phase of education in this country. Recent trends have led to a need for broadly differentiated programs of study for students, and for highly specialized talents on the part of teachers.

The questions that must be posed here are these: Can the small high school respond adequately to these demands? Does it have a chance of providing for rural youth the sorts of educational opportunities that are provided in the large schools?

The Composite High School Experiment

In the early post-war years, as the population explosion began to make itself felt in the secondary schools, a number of the Canadian provinces proceeded to establish special purpose high schools—university preparatory, vocational, technical, and commercial—the intent being, first, to provide educational opportunities for a greatly increased mass of students with a greatly expanded range of interests and aptitudes and, second, to assist society in meeting its need for skilled manpower prepared for a diversity of occupations.

In Alberta, vocational and agricultural schools were established in the hope that the above purposes might be served and that the drop-out rate might be reduced, correspondingly. Even the vocational schools, however, failed to capture the interest of many youth. It was claimed that vocational education, as it was then conceived, led nowhere. The high drop-out rate persisted. Finally, in the mid-fifties the Department of Education conceived of the idea of the composite high school which was to incorporate the best features of both the academic and the vocational schools. The philosophy of the Composite high school was expressed clearly in a publication of the Department in 1951, entitled **Advance in Secondary Education in Alberta** in the following way:

> The school we need is one in which each student will, at one and the same time, secure substantially the benefits of general education and specific pre-vocational training. Like the vocational school it will offer a program related to the needs of today—but to broad needs of people as individuals and citizens, and not as prospective workers only. Like the academic school, it will aim at teaching the young people to think, but it will do this by using varied means for its purpose instead of limiting itself to the content of traditional subjects only. Unlike either of these types of school, it will be a many-sided insitution which will offer a well-rounded educational program adapted to the needs of all its pupils.

The program of the composite high school consisted of a series of compulsory subjects (English, Social Studies, physical education and health) for all students; academic electives (mathematics, science and foreign languages) for university-bound students, and a choice of commercial, technical, homemaking, agricultural or general electives for the non-university-bound student.

The composite high school movement flourished in the cities where student enrollments were high enough and teaching staffs were large enough to offer the diversified program in the smaller cities and towns partial but reasonable composite school plans were feasible; indeed, even in the quite small high schools attempts were made to offer partial composite school programs.

In general, the composite school experiment must be regarded as a modest success. In the late 'fifties and early 'sixties more students achieved high school graduation than ever before; the drop-out rate was lower than ever before; and the high school came closer than ever before to realizing its dual purpose of providing preparation both for further academic pursuits and for employment.

One factor continued to plague the composite schools, however. That was the statuses that were ascribed by parents, students and teachers to the various programs. The college preparatory program was unquestionably the prestigious program; it attracted the best students, the best teachers and the best resources. Other programs were less popular. They tended to lack real purpose and direction; they were regarded by teachers and students as programs that led nowhere; and, accordingly, they were contemplated without enthusiasm by parents, teachers, and students.

In spite of this difficulty, however, the development of the composite school must be regarded as a significant milestone in the history of secondary education in Alberta.

The Current Scene

The old truism that "history tends to repeat itself" is probably as demonstrable in education as in any other field of human endeavor. Presumably, however, when enlightened educators experiment a second time with some particular educational innovation, they bring to the second attempt all the insights that were gleaned during the first attempt as well as the wisdom that was acquired in retrospection.

It is surely to be hoped that such is the case, for several years ago, Alberta experimented modestly but somewhat unsuccessfully with vocational education and abandoned the experiment hastily. Yet, today, Alberta is embarked with the rest of Canada, upon what one observer has referred to as a "vocational education binge".

This second experiment in technical and vocational education incorporates several features, however, which were not a part of the first: it is supported on a grand scale by the federal government; it is articulated carefully both with the technical institutes and with the apprenticeship regulations; it is rather carefully

geared to the anticipated man-power needs of the nation; and in most cases, it is developing in close relationship with the mainstream of general secondary education in the composite schools.

The new movement in technical-vocational education at the high school level has had a tremendous impact upon the programs of high schools throughout the province. Schools that just a few years ago offered programs totalling approximately 200 credits are now offering programs totalling over 400 credits. New technical, vocational, pre-vocational and related academic programs are being prepared and adopted at an unprecedented rate.

The new programs, most of them highly technical and specialized, are demanding correspondingly specialized teachers and elaborate equipment.

The proponents of the new and diversified high school programs look forward to the day when every student will be provided with a program of studies completely suited to his abilities and aspirations—and, incidentally, designed to prepare him to become a productive member of the industrialized society in which he will live.

It is extremely difficult at this time to anticipate the shape of things to come in the field of secondary education. But as long as society expects the high schools to assume the task of preparing scholars and scientists, citizens and craftsmen, technologists and technicians the high school will become more and more complex and characterized more and more by specialization—like the society it attempts to serve.

III. THE DESIGN OF THIS INVESTIGATION

Problems and Purposes Restated

In light of the preceding discussion of the emerging scene and the shape of things to come in secondary education, our problem here might be very simply restated as follows: Does the small high school have any future at all in Alberta's system of secondary education?

But it would be all too easy to answer such a question in the negative, without regard for the circumstances surrounding the existence of the small high school and without regard for the contributions which defenders of the small high school claim it is capable of making.

In general, our purpose in this inquiry is, as we hinted at the outset, to determine whether or not (and if so, how) the potential strengths of the small high school can be sufficiently developed and exploited, and the inherent weakness sufficiently overcome, to hold out to the institution reasonable hope of a future in the developing system of secondary education in Alberta.

Specifically, the questions we ask ourselves are the following:

(a) To what extent does size affect the quality of a high school?
Is there an absolute minimum size below which high schools should not fall?
Is there an optimum size which is to be desired?

(b) What can be done about those schools which are smaller than the absolute minimum?

(c) What are the potential strengths and inherent weaknesses of schools between the minimum and the optimum sizes?

(d) What could (and should) be done to maximize their strengths and to minimize their weaknesses?

Overview of the Report

In Chapter I we report a detailed investigation into the present status of the small high school—the program it offers; the achievement and satisfaction of its students; the qualifications, experience and work load of its teachers; the facilities it is provided with; and the leadership and consultative service it receives. In addition, we attempt to describe the typical small high school community—the aspirations of parents; the civic, economic and social forces that are present; and the religious and ethnic situation as it influences education.

Type A recommendations, on the necessity and feasibility of maintaining all presently existing small high schools, are presented in Chapter II.

Type B recommendations, on the strengthening of necessarily existent small high schools, are presented in Chapter III.

Type C recommendations, on the implementation of proposed improvements are presented in Chapter IV.

Chapter 1.

THE PRESENT STATUS OF THE SMALL HIGH SCHOOL

What is a small high school? How extensive is the so-called "small high school problem" in Alberta? How successful is the small high school in its attempt to provide appropriate educational opportunities for the youth of the mid 'sixties? Can the small high school respond effectively to the current demand for quality and diversified education at the secondary level?

These are the questions that receive our attention in this chapter.

Some of these questions, however, call for an assessment or evaluation of various features of the small high school. Accordingly, certain limitations must be specified and certain cautionary notes must be observed, before we proceed.

It must be recognized, at the outset, that evaluation is an extremely complicated problem in education. It is all but impossible to arrive at a precise measure of the goodness or badness of any educational institution, so many variables are present. However, certain kinds of conclusions may be drawn, about the effectiveness of a school, from the nature of the program offered, from estimates of the extent to which these programs accommodate the needs of the student population, and from measures of the achievement of students on standardization examinations. Other kinds of conclusions—more of the order of educated judgments—may be arrived at on the basis of considerations of the drop-out rate, qualifications and working conditions of teachers, the adequacy of available facilities, the extent of leadership and consultative services, and so on.

It should be recognized further, that in a study of an educational system as widespread as Alberta's, regional variations are bound to exist. Attempting to arrive at generalizations about the over-all quality and effectiveness of a provincial network of more than 300 small high schools is obviously a hazardous undertaking. For there are likely to be exceptions to almost any norm that is established.

In this report, we shall deal in generalization. Our descriptions shall be of the typical or average small high school—not of a specific one.

Accordingly, readers of this report are cautioned against two possible errors in judgment. The first would be to reject our descriptions and assessments because they fail to take into account the uniqueness of the situation known to the reader. The second would be, to accept our descriptions, assessments and recommendations and apply them indiscriminately to the situation of particular concern to the reader, without making the adaptations which might be indicated by the specific situation.

Finally, it should be recognized that the term "small high school" means different things to different people. In many metropolitan areas of Canada and the United States, high schools enrolling fewer than 1500 students tend to be regarded as rather small high schools. Conant's description of a desirable high school program suggests that well over 1000 students are required if optimum conditions are to prevail and he states, quite unequivocally, that high schools enrolling fewer than 100 students in the graduating class are not only small, but so seriously small, that they should be disestablished at once.

In contrast, in many sparsley-settled rural areas of both Canada and the United States, schools that enrol 150-200 students are considered by local people to be quite large–as compared with other very small high schools that are likely to exist in the region. Indeed, what one means when one speaks of large and small schools tends to depend upon the perspective which one adopts from one's own situation.

For purposes of this report, a small high school shall be defined as any high school that enrolls fewer than 300 students in grades X, XI, and XII. This definition is a purely arbitrary one. It serves only to provide a point at which to divide schools into two rough categories according to size. Nothing more is implied.

At present, there are in Alberta more than 300 schools that fit this definition of a small high school. But even among these schools there is a wide range. Accordingly, we have categorized all high schools into the following types:

Small High Schools

Type I. (1-39 students
Type II. (40-99 students } –Smallest of the Small High Schools
Type III. (100-199 students)–Medium Small High Schools
Type IV. (200-299 students)–Largest of the Small High Schools

Large High Schools

Type V. (300-399 students)–Smallest of the Large High Schools
Type VI. (400 + students)–Larger High Schools

This categorization of schools according to size is not purely an arbitrary one. The characteristics of schools do, in fact, cluster according to these types. Throughout this report we shall discuss high schools, not simply as large or small, but rather as Small Types I, II, III and IV or Large Types V and VI. For, as we shall demonstrate later, it is extremely difficult to draw accurate or significant comparisons among schools when they are simply categorized as "large" or "small".

I. THE SCOPE OF THE SMALL HIGH SCHOOL PROBLEM IN ALBERTA

Number and Size of Small High Schools

In September, 1965, there were 368 high schools in operation in Alberta. Table I summarizes the distribution of these schools according to size.

TABLE I
Distribution of Alberta High Schools by Size

Type and Size of School		Number of Schools	%
I.	(1-39)	92	25.0
II.	(40-99)	137	37.2
III.	(100-199)	68	18.5
IV.	(200-299)	19	5.2
V.	(300-399)	20	5.4
VI.	(400+)	32	8.7

Since 316, or over 85% of Alberta's high schools enrol fewer than 300 students, it might be inferred that the province's high school system is predominantly rural and to a large extent made up of small high schools. But such an inference would be inaccurate. For almost half of Alberta's high school students, in fact, attend one of the large Type VI high schools. The exact distribution of high school students, according to type of school, is summarized in Table II.

TABLE II

Distribution of Students by Size of School

Type and Size of School		Number of Students	%
I.	(1-39)	2,180	3.3
II.	(40-99)	9,042	13.9
III	(100-199)	9,860	15.1
IV.	(200-299)	4,414	6.8
V.	(300-399)	7,108	10.9
VI.	(400+)	32,556	50.0

Tables I. and II above give one kind of picture of the scope of the small high school problem in Alberta. In brief, these tables indicate that, whereas the most of our high schools are small, the most of our students attend high schools that are reasonably large. What these tables do not show, however, is the typical distribution of students in typical schools of various sizes. By combining Tables I. and II., and by adding a breakdown of students by grade, it is possible to arrive at a picture of the student population of typical schools of various sizes. This information is presented in Table III.

TABLE III

Students Per Grade According to Size of School

Type and Size of School		Average No. of Students			
		X	XI	XII	Total
I.	(1-39)	11.8	7.6	4.4	23.7
II.	(40-99)	24.2	21.6	20.3	66.0
III.	(100-199)	53.8	47.0	44.2	145.0
IV.	(200-299)	76.3	78.6	77.4	232.3
V.	(300-399)	116.8	120.4	118.2	355.4
VI.	(400+)	329.0	315.1	373.2	1017.4

To complete the picture of the scope of the small high school problem, Table IV summarizes the distribution of Alberta's high school teachers according to size of school.

TABLE IV

Distribution of Teachers by Size of School

Type and Size of School		No. of Schools	Av. No. of Teachers	Total
I.	(1-39)	92	2.85	262
II.	(40-99)	137	5.49	753
III.	(100-199)	68	9.28	631
IV.	(200-299)	19	13.68	261
V.	(300-399)	20	19.90	398
VI.	(400+)	32	45.91	1469

In summary, with respect to the scope and extent of the small high school problem in Alberta, the following observations might be made:

1. Over 85% of Alberta's high schools are small, enrolling fewer than 300 students. Exactly 25% are extremely small enrolling fewer than forty students.

2. Over half of Alberta's high school students, however, attend large schools, enrolling more than 400 students.

3. The total enrollment in the typical very small high school, Type I., is fewer than twenty-four students. The typical graduating class in these schools is fewer than five students.

4. Well over half of Alberta's high school teachers work in small high schools—though considerably less than half of Aberta's high school students attend small high schools. Indeed, in the very small high schools, Type I., the typical pupil-teacher ratio is about 11 to 1, compared to a typical pupil-teacher ratio of about 22 to 1 in the larger high schools.

Location of Small High Schools

In terms of population distribution, Alberta is a land of extremes. Though there are few serious geographic barriers separating one part of the province from others, the normal process of urbanization which has taken place in a predominantly agricultural country has led to a few centers of high population density, a few centers of medium population density and a great expanse of territory where the population is extremely sparse.

For purposes of administrative convenience (including planning and inter-divisional cooperation) the Department of Education has divided the Province of Alberta into six zones. A zone is simply a loosely-knit group of local school jurisdictions—including divisions, counties and districts—which make up a high school inspectorate.

The six zones are as follows: Zone 1, the Peace River Area; Zone 2, the Edmonton North-West Area; Zone 3, the Edmonton South-East Area; Zone 4, the Red Deer Area; Zone 5, the Calgary Area; and Zone 6, the Lethbridge Area. The distribution of high schools in all the zones is summarized in Table V.

TABLE V

Distribution of High Schools by Zones

Type and Size		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Private H. S.	Edmont Metro	Indian	Total
I.	(1-39)	17	18	7	13	16	10	5	2	4	92
II.	(40-99)	18	28	19	29	24	14	5	0	0	137
III.	(100-199)	9	15	12	7	13	12	0	0	0	68
IV.	(200-299)	1	2	5	2	2	2	3	2	0	19
V.	(300-399)	1	4	1	4	3	5		2	0	20
VI.	(400+)	0	0	1	2	12	3	2	12	0	32
Totals		46	67	45	57	70	46	15	18	4	368

Clearly, the small high school phenomenon is not localized. Each of the six zones has its share of all types of small high schools.

DISTRIBUTION OF HIGH SCHOOLS

THROUGHOUT THE PROVINCE

In the pages that follow, a rather detailed picture is presented of the exact distribution of high schools throughout the Province. A map of each Zone shows the location of schools of various sizes as well as the transportation routes that join them. In addition, a complete list of high schools—with brief descriptive data—is provided for each zone.

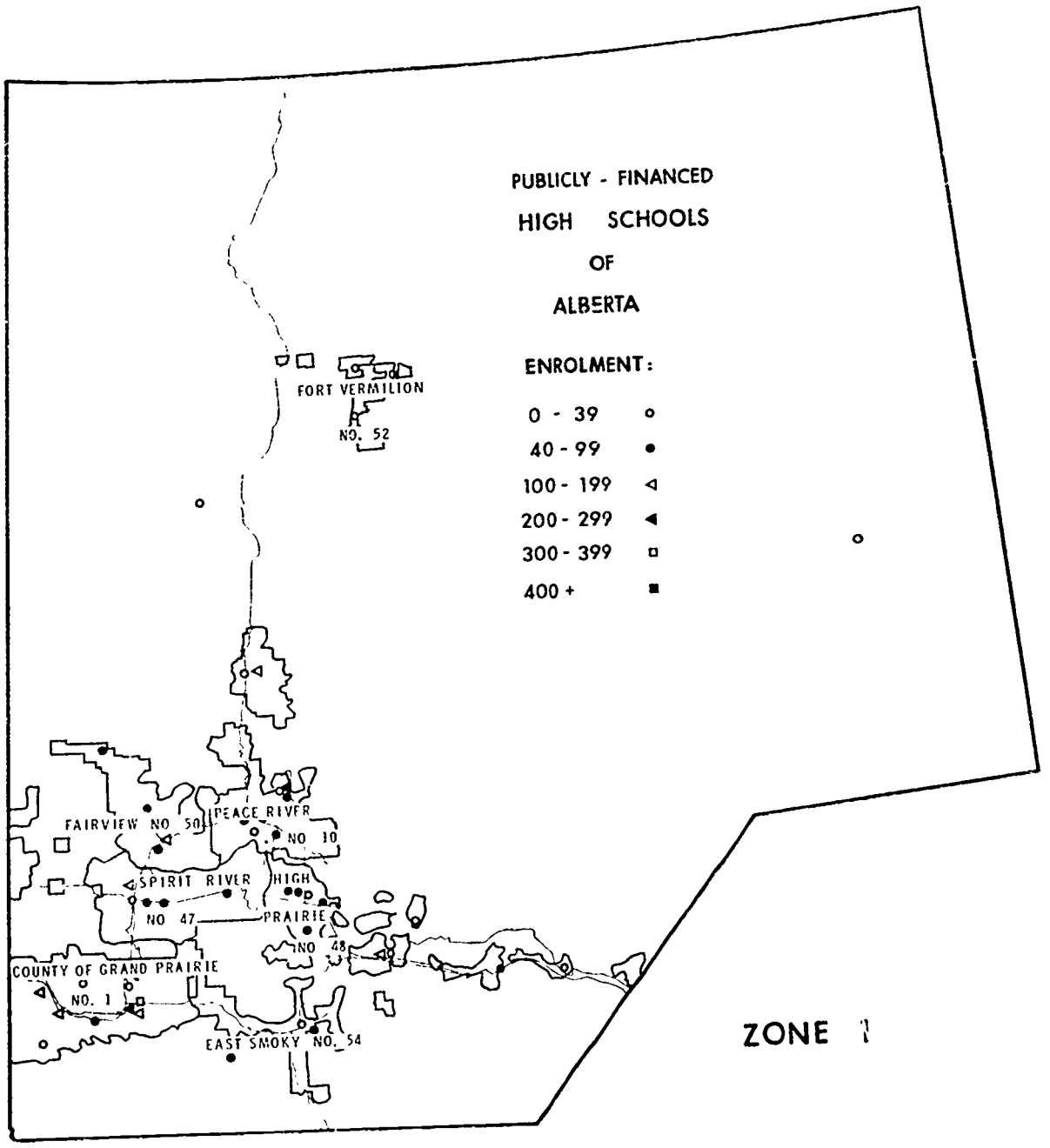
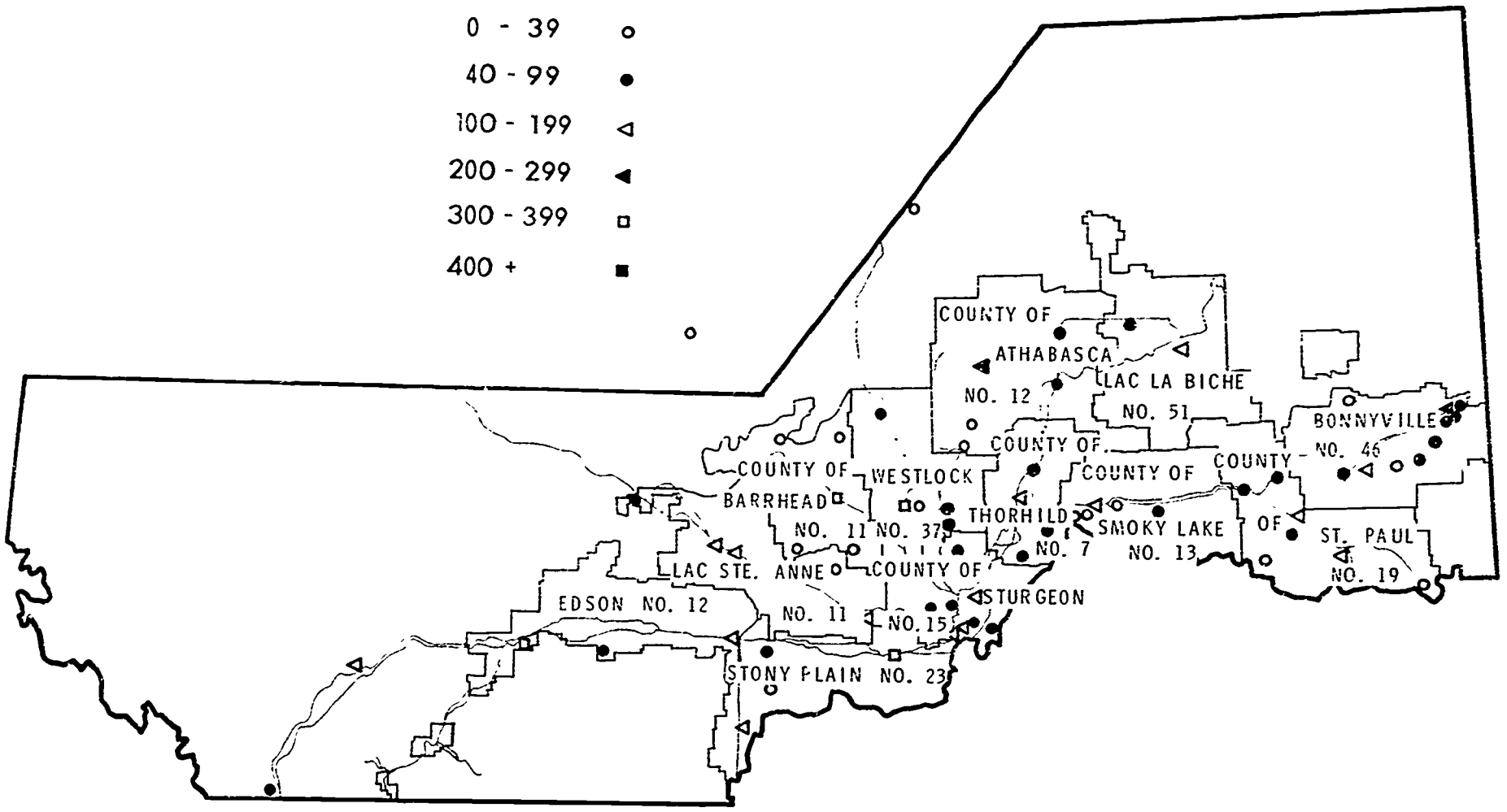

PUBLICLY - FINANCED
HIGH SCHOOLS
OF
ALBERTA
ENROLMENT:
0 - 39
40 - 99
100 - 199
200 - 299
300 - 399
400 +
FORT VERMILION
NO. 52
FAIRVIEW NO 50
PEACE RIVER
NO 10
SPIRIT RIVER
NO 47
HIGH
PRAIRIE
NO 48
COUNTY OF GRAND PRAIRIE
NO. 1
EAST SMOKY NO. 54
ZONE 1

TABLE VI

The High Schools of Zone 1—The Peace River Area

Local Authority and School	Students	Teachers	Credits
1. County of Grande Prairie			
Beaverlodge ....(PH)	140	7	193
Hythe .....(P)	117	9	183
La Glace .....(P)	17(X)	3	36
Wembly .....(P)	58	5	128
Sexsmith .....(P)	126	5	127
Elmworth .....(P)	17(X,XI)	2	53
2. Grande Prairie Inspec.			
Grande Prairie(RCS)	141	8	155
Sexsmith .....(RCS)	17(X,XI)	1	47
3. Grande Prairie S.D.			
Grande Prairie (PH)	310	16	168
Vocational .....(V)	204	13	332
4. Peace River Sch. Div.			
Peace River ....(PH)	184	9	199
Berwyn .....(P)	68	4	129
Dixonville ....(P)	23(X,XI)	2	54
Grimshaw .....(P)	31	4	126
Manning .....(PH)	104	6	163
5. Independent Districts			
St. Isidore .....(P)	4(X)	1	30
Rosary .....(RCS)	24(X,XI)	3	62
Glenmary ....(RCS)	42	4	88
Grimshaw ....(RCS)	24(X,XI)	3	55
6. Spirit River Sch. Div.			
Rycroft .....(P)	86	6	119
Spirit City .....(P)	133	8	168
Wanham .....(P)	49	5	120
Eaglesham .....(P)	76	4	118
7. Independent District			
Spirit River (RCS)	15(X,XI)	2	59
8. Fairview Sch. Div.			
Fairview .....(PH)	187	7	102
Hines Creek ..(PH)	60	4	135
Worsley .....(P)	50	4	138
9. Independent District			
Breynat .....(RCS)	56	5	120
10. High Prairie Sch. Div.			
Slave Lake .....(P)	38(X,XI)	4	95
High Prairie ..(PH)	128	9	197
Donnelly .....(P)	27	3	105
Kinuso .....(P)	62	6	166
Girouxville .....(P)	55	4	123
Langlois .....(P)	52	5	130
11. Independent Districts			
Falher .....(CONS)	69	6	140
Providence ....(RCS)	53	4	128
High Prairie ..(RCS)	39	4	115
12. East Smoky Sch. Div.			
Valleyview ....(PH)	72	10	165
Ridgevalley .....(P)	63	9	175
13. Independent District			
Valleyview (RCS)	15(X,XI)	5	65
14. Fort Vermilion Sch. Div.			
Rocky Lane .....(P)	19(X,XI)	3	55
Mustus Lake ....(P)	11(X,XI)	4	67
15. Independent District			
Ft. Vermilion (RCS)	10	3	61
16. Northland Sch. Div.			
Grouard .....(P)	42(X,XI)	12	118
Dr. Mary Jackson(P)	9(X)	2	32
17. Independent District			
St. John's ....(RCS)	25(X,XI)	4	83


0 - 39
40 - 99
100 - 199
200 - 299
300 - 399
400 +
COUNTY OF ATHABASCA NO. 12
LAC LA BICHE NO. 51
BONNYVILLE NO. 46
COUNTY OF WESTLOCK NO. 37
COUNTY OF BARRHEAD NO. 11
THORHILD NO. 7
COUNTY OF SMOKY LAKE NO. 13
COUNTY OF ST. PAUL NO. 19
LAC STE. ANNE NO. 11
COUNTY OF STURGEON NO. 15
EDSON NO. 12
STONY PLAIN NO. 23

ZONE 2

TABLE VII

The High Schools of Zone 2—Edmonton North-West Area

Local Authority and School	Students	Teachers	Credits
1. Edson Sch. Div.			
Edson .....(PH)	301	14	210
Evansburg .....(P)	141	9	157
Niton .....(P)	41	4	136
Hinton .....(PH)	136	13	160
2. Independent District			
Jasper .....(P)	77	8	161
3. Stony Plain Sch. Div.			
Stony Plain ....(PH)	392	19	263
Tomahawk .....(P)	35	2	83
Drayton Valley (PH)	186	9	172
Seba Beach .....(P)	63	8	182
4. County of Lac Ste. Anne			
Onoway .....(P)	140	7	146
Rich Valley .....(P)	39	4	101
Whitecourt .....(P)	89	5	124
Mayerthorpe ....(P)	122	6	186
Sangudo .....(P)	123	5	131
5. County of Barrhead			
Fort Assiniboine (P)	32	2	80
Dunstable .....(P)	5(X)	1	27
Neerlandia .....(P)	14(X)	1	25
Meadowview ....(P)	13(X)	1	27
Barrhead .....(PH)	383	21	294
6. Independent District			
Swan Hills .....(P)	26	5	118
7. Westlock Sch. Div.			
Clyde .....(P)	75	5	127
Westlock .. ..(PH)	374	21	263
Fawcett .....(P)	56	5	140
Vimy .....(P)	49	4	96
8. Independent District			
St. Mary's ....(RCS)	9(X)	3	38
9. County of Sturgeon			
Namao .....(P)	44	5	132
Horse Hill .....(P)	61	5	141
Bon Accord .....(P)	110	9	186
Camilla .....(P)	75	5	156
Legal .....(P)	71	5	141
10. Independent District			
Thibault .....(RCP)	76	6	137
11. County of Thorhild			
Redwater .....(P)	96	11	163
Thorhild .....(P)	123	7	164
Radway .....(P)	59	7	173
Newbrook .....(P)	59	8	161

Local Authority and School	Students	Teachers	Credits
12. County of Athabasca			
Athabasca .....(PH)	236	12	242
Perryvale .....(P)	8(X)	2	37
Boyle .....(P)	80	5	142
Rochester .....(P)	37	3	87
Smith .....(P)	37	4	112
Grassland .....(P)	54	5	167
13. County of Smoky Lake			
Waskatenau .....(P)	39	3	89
Warspite .....(P)	21		54
Bellis .....(P)	37	4	86
Smoky Lake .....(P)	114	8	167
Vilna .....(P)	88	8	164
14. Lac La Biche Sch. Div.			
Plamondon .....(P)	46	4	97
Lac La Biche (PH)	138	9	146
15. Bonnyville Sch. Div.			
Fort Kent .....(P)	72	4	118
Glendon .....(P)	76	6	137
Cold Lake .....(P)	51	6	125
Ardmore .....(P)	56	5	126
Grand Centre ....(P)	97	8	153
Iron River .....(P)	34(X-XI)	5	78
Duclos .....(PS)	37	5	108
16. Independent District			
Bonnyville .....(P)	118	8	158
Cold Lake ....(RCS)	59	3	115
17. Biggin Hill Sch. Div.			
Beaver River ....(P)	271	12	170
18. County of St. Paul			
Elk Point .....(P)	132	9	162
Lafond .....(P)	38	2	91
Ashmont .....(P)	80	7	152
Mallaig .....(P)	69	5	152
Heinsburg .....(P)	22(X,XI)	2	53
19. Independent District			
Glen Avon .....(PS)	76	8	164
20. St. Paul S. D.			
Racette .....(PH)	198	10	195
21. St. Albert S. D.			
St. Albert .....(PH)	152	9	185
22. St. Albert (P. S.) S. D.			
Paul Kane .....(PS)	178	15	198

0 - 39 ○

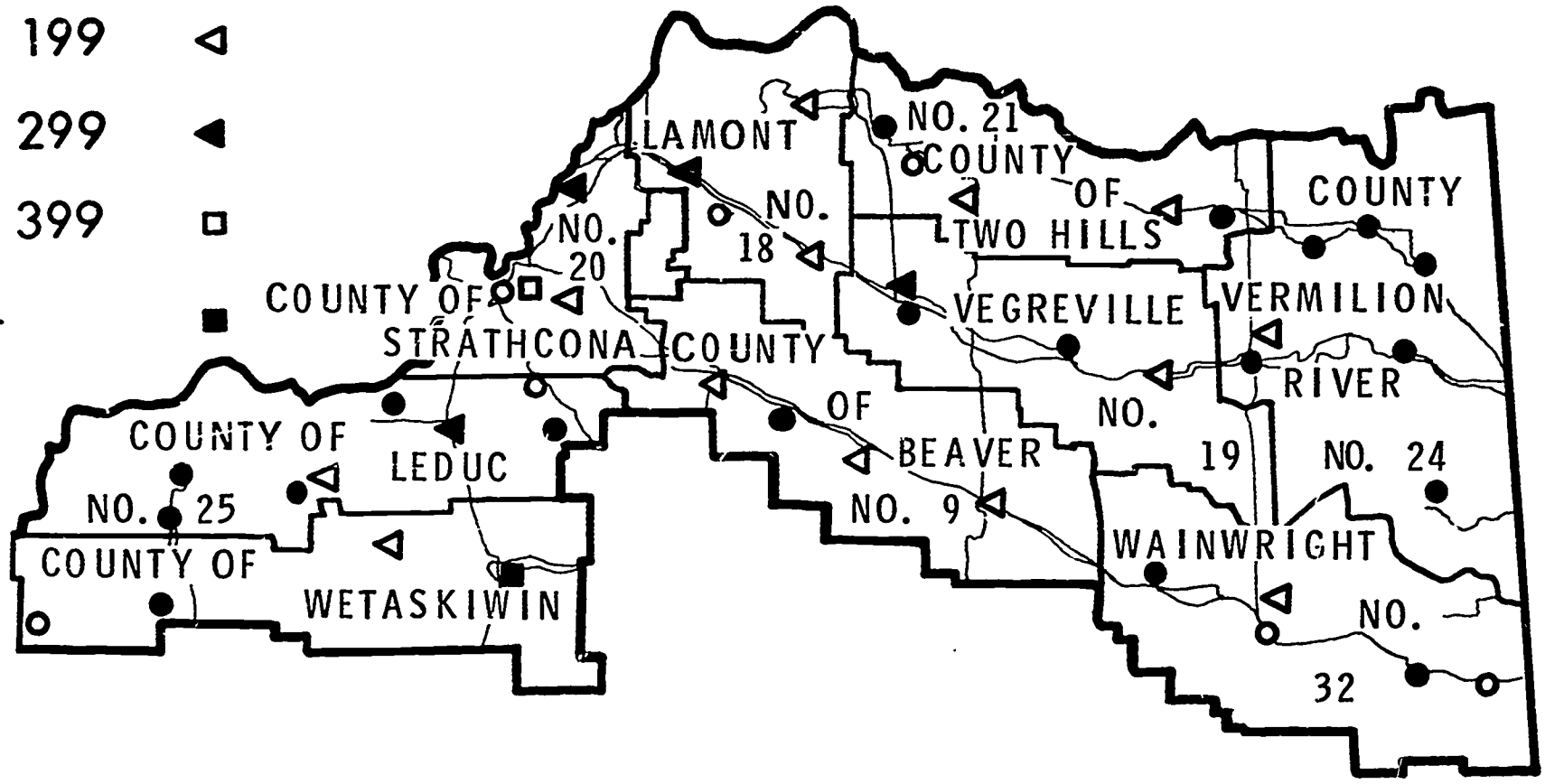
40 - 99 ●

100 - 199 ◁

200 - 299 ◀

300 - 399 □

400 + ■



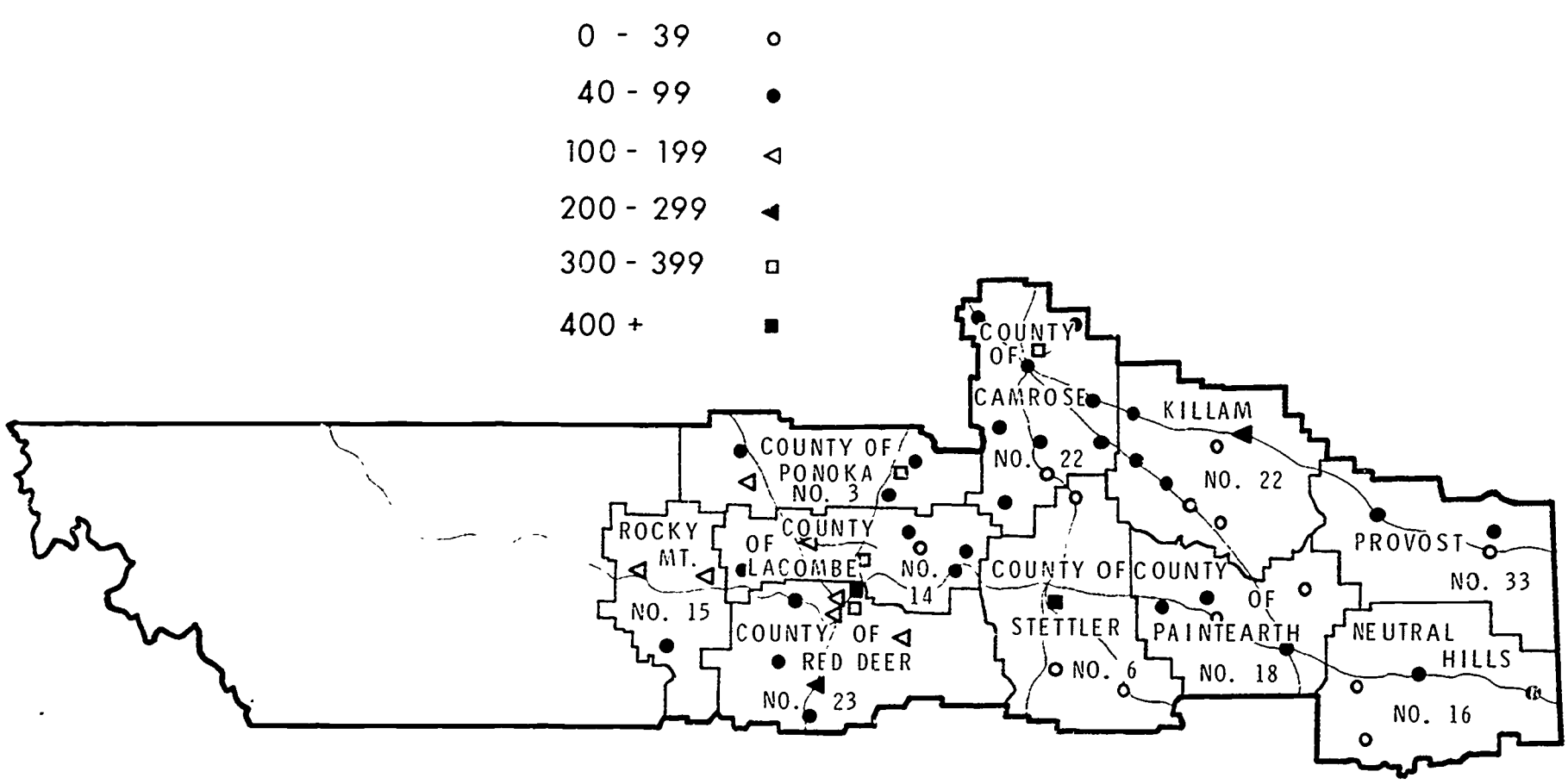
ZONE 3

TABLE VIII

The High Schools of Zone 3—Edmonton South-East Area

Local Authority and School	Students	Teachers	Credits
1. County of Leduc			
Leduc .....(PH)	241	14	266
Calmar .....(PH)	110	8	182
Beaumont .....(P)	28	6	103
Warburg .....(P)	84	7	176
Breton .....(P)	79	5	152
New Sarepta ....(P)	71	7	172
Thorsby .....(P)	94	11	204
2. Independent District			
Devon .....(P)	93	8	170
3. County of Wetaskiwin			
Falun .....(PH)	144	11	180
Winfield .....(P)	76	6	131
Alder Flats .....(P)	18(X-XI)	2	60
4. Wetaskiwin S.D.			
Wetaskiwin ....(PH)	445	22	306
5. County of Strathcona			
Ft. Sask. .....(PH)	243	16	246
Ardrossan .....(PH)	175	16	220
Salisbury .....(PH)	383	27	264
6. Independent District			
Salisbury .....(RCS)	18(X)	3	35
7. Lamont Sch. Div.			
Andrew .....(P)	145	9	199
Lamont .....(P)	218	11	221
Chipman .....(P)	19(X)	2	34
Mundare .....(P)	117	9	184
8. County of Beaver			
Holden .....(P)	119	6	153
Ryley .....(P)	72	7	162
Viking .....(P)	142	7	196
Tofield .....(P)	128	7	167

Local Authority and School	Students	Teachers	Credits
9. County of Two Hills			
New Hairy Hill (P)	34(X-XI)	3	70
Willingdon .....(P)	80	4	139
Two Hills .....(PH)	142	9	163
Derwent .....(P)	52	3	112
New Myrnam ....(P)	103	7	156
10. County of Vermilion River			
Vermilion .....(PH)	186	10	236
Kitscoty .....(P)	80	6	144
Marwayne .....(P)	93	5	147
Paradise Valley (P)	56	5	125
Dewberry .....(P)	41	4	110
11. Independent District			
Clandonald ..(RCS)	51	5	93
Vermilion ....(RCS)	51	5	142
12. Vegreville Sch. Div.			
Vegreville .....(PH)	258	14	258
Mannville .....(P)	138	9	199
Innisfree .....(P)	97	5	139
13. Independent District			
St. Martin's ..(RCS)	43	5	139
14. Wainwright Sch. Div.			
Wainwright ....(PH)	213	11	238
Edgerton .....(P)	51	4	116
Chauvin .....(P)	31	4	118
Irma .....(P)	82	4	126
15. Independent District			
Wainwright (RCS)	37	5	121

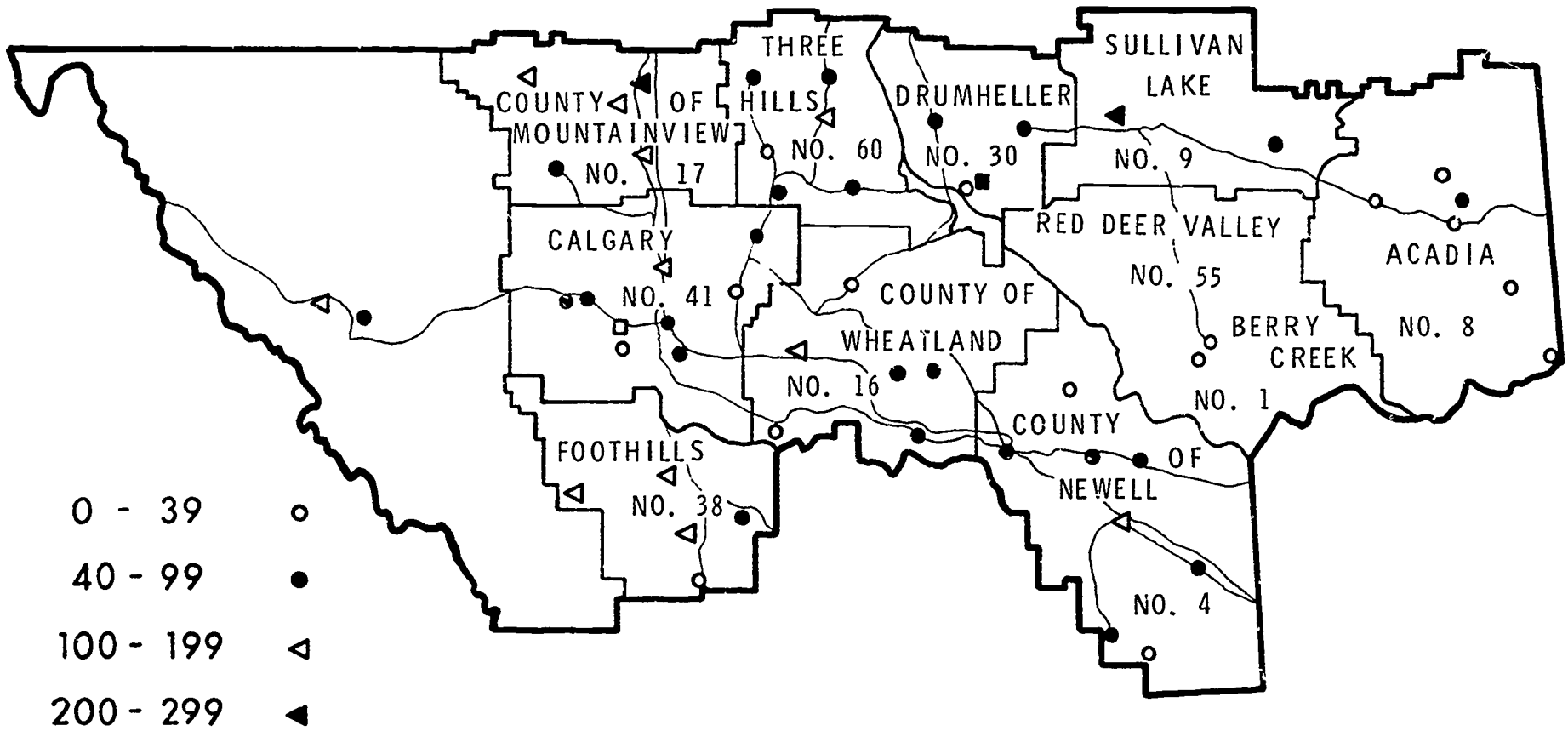

0 - 39
40 - 99
100 - 199
200 - 299
300 - 399
400 +
COUNTY OF CAMROSE NO. 22
KILLAM
NO. 22
COUNTY OF PONOKA NO. 3
ROCKY MT. NO. 15
COUNTY OF LACOMBE
COUNTY OF RED DEER NO. 23
NO. 14
COUNTY OF STETTLER NO. 6
COUNTY OF PAINTEARTH NO. 18
PROVOST NO. 33
NEUTRAL HILLS NO. 16

ZONE 4

TABLE IX

The High Schools of Zone 4—Red Deer Area

Local Authority and School	Students	Teachers	Credits
1. County of Ponoka			
Ponoka .....(PH)	373	21	316
Rimbey .....(PH)	183	11	212
Bluffton .....(P)	48(X-XI)	4	87
Mecca Glen ....(P)	42(X-XI)		67
Crestomere .....(P)	49(X-XI)	3	77
2. Rocky Mountain S.D.			
Condor .....(PH)	106	8	170
Caroline .....(P)	65	7	157
Rocky Mt. H. (PH)	189	14	222
3. County of Lacombe			
Lacombe .....(PH)	323	17	237
Mirror .....(P)	59	6	147
Bentley .....(PH)	110	9	181
Clive .....(P)	67	5	121
Alix .....(P)	56	5	123
Eckville .....(P)	79	8	173
Satinwood .....(P)	9(X)	2	32
4. County of Red Deer			
Innisfail .....(P)	254	15	218
Bowden .....(P)	92	6	154
Sylvan Lake ....(P)	95	6	157
Spruce View ....(P)	91	8	153
Delburne .....(P)	187	12	211
River Glen .....(P)	120(X)	5	41
5. Red Deer Sch. Div.			
Lindsay Thurber			
Voc .....(VH)	384	21	420
and Comp. ....(CH)	1066	37	314
6. Red Deer RCS Sch. Div.			
St. Thomas			
Aquinas ....(RCS)	125	12	190
7. County of Stettler			
Big Valley .....(P)	34	6	104
Donalda .....(P)	27(X-XI)	4	71
Byemoor .....(P)	26(X-XI)	2	57
8. Stettler Sch. Div.			
Stettler Comp. (CH)	437	27	498
9. County of Camrose			
New Norway ....(P)	71	4	141
Edberg .....(P)	41	4	101
Bawlf .....(P)	80	8	157
Rosalind .....(P)	50	3	106
Meeting Creek (P)	18(X-XI)	1	50
Round Hill .....(P)	66	5	128
Bashaw .....(P)	74	6	139
Hay Lakes .....(P)	65	4	130
10. Independent District			
St. Patrick ....(RCS)	77	4	143
(Camrose)			
11. Camrose S.D.			
Comp. High			
Camrose ....(CH)	397	19	447
12. Killam S.D.			
Daysland .....(P)	98	7	175
Sedgewick .....(PH)	205	12	257
Alliance .....(P)	38	3	91
Heisler .....(P)	58	6	128
Galahad ....(CONS)	29	3	82
13. Independent District			
Forestburg (CONS)	73	7	178
Killam .....(RCS)	19(X-XI)	2	67
14. County of Paintearth			
Brownfield .....(P)	32	3	90
Halkirk .....(P)	49	3	89
Castor .....(P)	91	5	161
Coronation .....(P)	59	5	117
15. Independent District			
Theresetta ....(RCS)			
(Castor)	39	3	91
16. Provost S.D.			
Provost .....(P)	78	7	156
Hughenden .....(P)	98	6	167
17. Independent District			
Provost .....(RCS)	7(X-XI)	3	76
18. Neutral Hills Sch. Div.			
Consort .....(P)	56	5	129
Hemaruka .....(P)	7(X)	1	28
Altario .....(P)	44	4	112
Veteran .....(P)	32	2	80



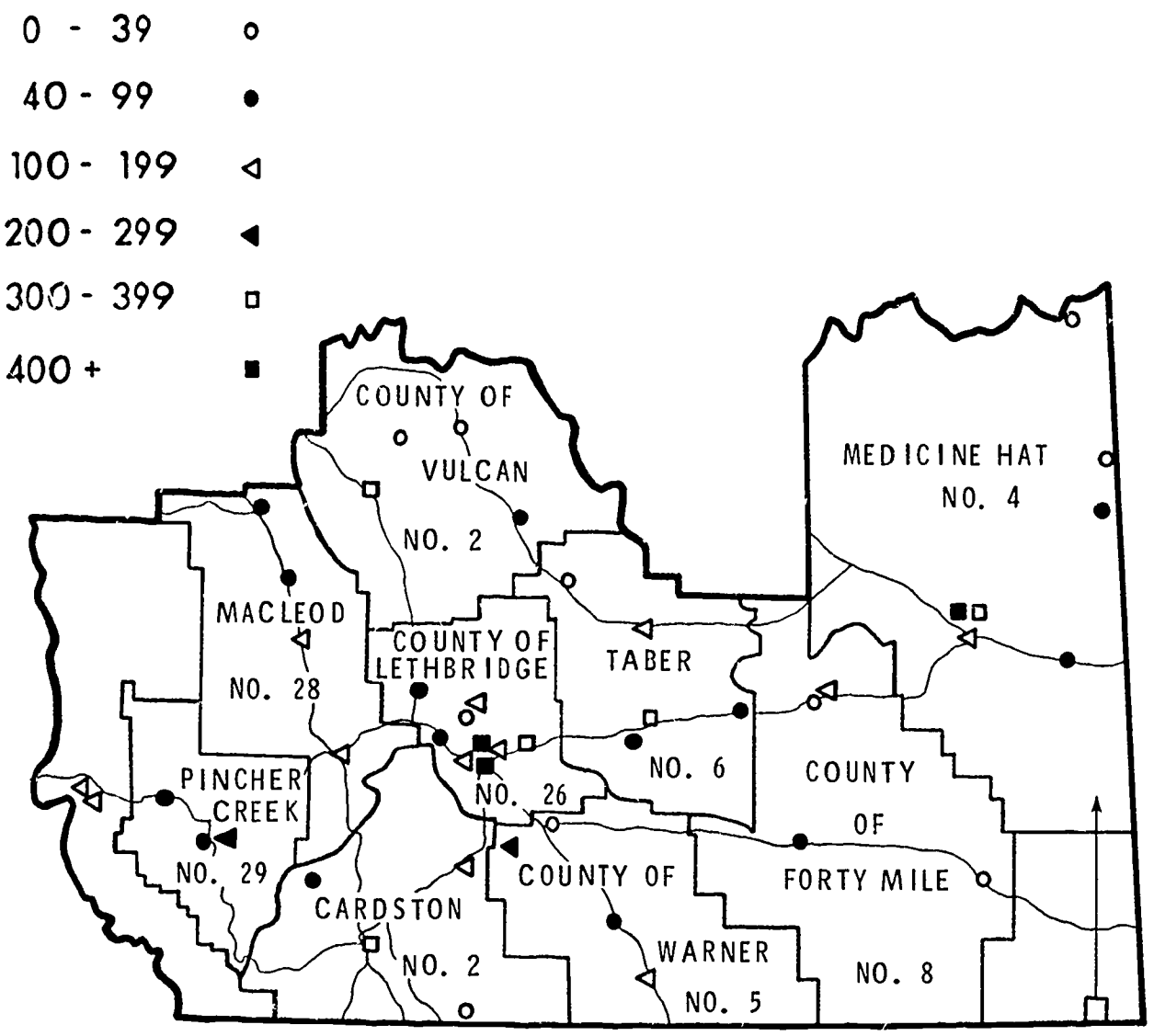
0 - 39	○
40 - 99	●
100 - 199	△
200 - 299	◀
300 - 399	□
400 +	■

ZONE 5

TABLE X

The High Schools of Zone 5–Calgary Area

Local Authority and School	Students	Teachers	Credits
1. County of Mountainview			
Olds .....(PH)	239	18	246
Carstairs .....(P)	100	8	172
Didsbury .....(P)	132	7	174
Cremona .....(P)	75	7	145
Sundre .....(P)	165	8	181
2. Three Hills Sch. Div.			
Linden .....(P)	39	4	131
Carbon .....(P)	74	5	122
Trochu Valley (P)	98	8	136
Acme .....(P)	59	5	115
Three Hills .....(P)	132	10	161
Torrington .....(P)	49	5	126
3. Drumheller Sch. Div.			
Morrin .....(P)	82	5	127
Delia .....(P)	88	6	126
4. Independent District			
Drumheller			
Voc. .....(VH)	447	23	470
Drumheller.. (RCS)	30(X-XI)	4	90
5. Sullivan Lake Sch. Div.			
Youngstown .....(P)	51	4	97
6. Independent District			
Hanna .....(PH)	228	11	175
7. Acadia Sch. Div.			
New Brigden ....(P)	20	3	81
Oyen .....(P)	74	7	152
Acadia Valley ..(P)	28(X-XI)	3	69
Kitchener .....(P)	15(X-XI)	2	55
Cereal .....(P)	33	2	97
8. Independent District			
Assumption			
(Oyen) .....(RCS)	6(X)	2	36
9. Berry Creek Sch. Div.			
Connorsville .....(P)	3(X)	1	23
New Cessford ....(P)	23	2	70
10. County of Wheatland			
Strathmore .....(P)	110	9	176
Carseland .....(P)	26	2	90
Cluny .....(P)	77	5	112
Standard .....(P)	61	5	142
Hussar .....(P)	49	4	85
Rockyford .....(P)	36	3	97
11. County of Newell			
Bassano .....(P)	51	5	111
Duchess .....(P)	77	5	127
Gem .....(P)	12(X-XI)	2	48
Rosemary .....(P)	47	6	142
Scandia .....(P)	22(X-XI)	3	76
Tilley .....(P)	48	5	112
East Rolling Hills(P)	40	4	98
12. Independent District			
Brooks .....(PH)	172	11	200
13. Foothills Sch. Div.			
Okotoks .....(P)	125	8	179
Cayley .....(P)	29	4	109
Blackie .....(P)	48	5	132
Turner Valley (PH)	178	9	167
14. Independent District			
High River ....(PH)	156	9	194
15. Calgary Sch. Div.			
Springbank .....(P)	48	5	133
Airdrie .....(PH)	167	12	220
West Brook .....(P)	41	3	99
Kent .....(P)	65	6	159
Kathryn .....(P)	36	4	112
Beiseker .....(P)	48	5	143
16. Independent District			
Cochrane .....(PH)	68	5	142
17. Calgary Non-Divisional Districts			
Banff .....(PH)	155	10	167
Canmore .....(P)	90	7	159
Bowness .....(RCS)	21(X)	3	48
18. Bowness S.D.			
Bowness Comp.(PH)	355	27	344
19. Calgary S.D.			
Central .....(PH)	397	20	168
Cresc. Heights (PH)	1566	68	535
Ern. Manning (VH)	899	42	431
Forest Lawn ....(PH)	376	20	319
Henry Wise			
Wood .....(PH)	1540	68	398
James Fowler (VH)	808(X-XI)	41	425
Montgomery ..(PH)	150	10	172
Queen Eliz. ....(PH)	710	53	348
Visc. Bennett (PH)	1508	77	477
W. Canada ....(PH)	1467	69	558
Wm. Aberhart (PH)	1303	59	348
20. Calgary RCS S.D.			
Holy Cross ..(RCS)	126	8	164
St. Francis ....(RCS)	726	36	289
St. Mary's			
Boys' .....(RCS)	500	25	268
St. Mary's			
Girls' .....(RCS)	470	24	267


0 - 39
40 - 99
100 - 199
200 - 299
300 - 399
400 +
COUNTY OF
VULCAN
NO. 2
MACLEOD
NO. 28
COUNTY OF
LETHBRIDGE
TABER
NO. 6
PINCHER
CREEK
NO. 29
NO. 26
CARDSTON
COUNTY OF
WARNER
NO. 5
NO. 2
MEDICINE HAT
NO. 4
COUNTY
OF
FORTY MILE
NO. 8

ZONE 6

TABLE XI

The High Schools of Zone 6—Lethbridge Area

Local Authority and School	Students	Teachers	Credits
1. Macleod S.D.			
Macleod .....(PH)	194	13	207
Nanton .....(P)	97	6	153
Claresholm ....(PH)	176	12	185
Stavely .....(P)	47	5	145
2. County of Vulcan			
Vulcan .....(P)	327	23	330
Lomond .....(P)	57	3	101
Milo .....(P)	33	4	110
3. Independent District			
Barons .....(CONS)	32	3	95
4. Taber Sch. Div.			
W. R. Myers (Taber) .....(PH)	344	21	251
Chamberlain ....(P)	46	3	99
Enchant .....(P)	16(X-XI)	2	42
Vauxhall .....(P)	167	10	168
5. Independent District			
St. Mary (Taber) .....(RCS)	80	7	146
6. County of Forty Mile			
Bow Island ....(PH)	122	10	193
Manyberries .....(P)	21	3	71
Foremost .....(P)	98	7	175
7. Independent District			
Bow Island ..(RCS)	36	4	105
8. Medicine Hat Sch. Div.			
Irvine .....(P)	66	6	153
Bindloss .....(P)	18	2	70
Schuler .....(P)	50	6	129
New Hilda .....(P)	18(X-XI)	2	68
9. Medicine Hat S.D.			
Cresc. Heights (PH)	356	21	284
Medicine Hat (PH)	963	48	585
10. Medicine Hat R.C.S. S.D.			
McCoy .....(RCS)	199	13	251
11. County of Warner			
Raymond .....(PH)	224	12	223
Warner .....(P)	82	7	166
Milk River ....(PH)	133	10	208
12. Independent District			
Stirling .....(P)	38	4	108
13. Cardston Sc. Div.			
Cardston .....(PH)	315	14	201
Magrath .....(PH)	145	9	195
Glenwood .....(P)	59	5	133
Del Bonita .....(P)	32	4	93
14. County of Lethbridge			
Kate Andrews (Coaldale) .....(PH)	340	19	254
Noble .....(P)	63	5	124
Coalhurst .....(PH)	57	4	131
Picture Butte (PH)	174	12	197
15. Independent District			
Picture Butte (RCS)	36	3	108
16. Lethbridge S.D.			
Leth. Col Inst. (PH)	1075	44	502
Winst. Churchill (P)	475	26	379
17. Lethbridge RCS S.D.			
St. Francis (Boys) .....(RCS)	189	13	199
St. Joseph's (Girls) .....(RCS)	156	10	214
18. Pincher Creek Sch. Div.			
Pincher Creek (PH)	218	17	230
(Lundbreck) .....(P)	57	4	110
19. Independent District			
Coleman .....(P)	128	9	151
St. Michael's (Pin. Creek) (RCS)	71	5	135
Crowsnest ..(CONS)	167	12	179

In addition to the high schools listed by zone, the Edmonton Metropolitan Area has eighteen high schools; there are four Indian high schools; and there are fifteen private high schools in the province.

TABLE XII

High Schools of the Edmonton Metropolitan Area

Local Authority and School		Students	Teachers	Credits
Edmonton School District				
Bonnie Doon Composite	CH	1611	70	309
Eastglen Composite High	CH	1311	61	478
Jasper Place Composite	CH	1254	74	647
McNally Composite High	CH	458 X-XI	24	193
Queen Elizabeth Composite	CH	1625	72	349
Ross Sheppard Composite	CH	2025	89	335
Strathcona Composite	CH	1547	63	423
Victoria Composite	CH	1111	48	379
Victoria Vocational	VH	1283	73	858
Edmonton R.C.S. School District				
Austin O'Brien	RCS	351	20	253
O'Leary Boys' High	RCS	461		233
O'Leary Girls' High	RCS	474		286
St. Francis Xavier	RCS	322	17	235
St. Joseph's High	RCS	1301	60	652
St. Mary's Boys' High	RCS	232	15	249
St. Mary's Girls' High	RCS	253	18	242
Alberta Institute		14 X-XI	2	59
Queens Avenue		4X	1	15

TABLE XIII

Secondary Indian Schools

Local Authority and School	Students	Teachers	Credits
Crowfoot (Cluny)	21	5	89
Blood (Cardston)	31	2	82
Ermineskin (Hobbema)	28	5	108
Joussard	13 X-XI		51

TABLE XIV

Private Secondary Schools

Place (School)		Students X-XII	Teachers X-XII	Credits
Hillcrest Christian College (Medicine Hat)	Evangelical United Brethren	55	5	122
Prairie High School (Three Hills)	Evangelical United Brethren	217	10	176
Concordia College (Edmonton)	Lutheran	84	6	117
Camrose Lutheran College	Lutheran	201	12	202
Christian Training Institute (Edmonton)	North American	4 XII	2	30
Assumption Academy (Edmonton)	Roman Catholic	84	7	155
Convent F. C. J. (Edmonton)	Roman Catholic	38	4	115
Holy Redeemer College (Edmonton)	Roman Catholic	51	6	113
St. Anthony's College (Edmonton)	Roman Catholic	64	6	109
Our Lady of Charity School (Edmonton)	Roman Catholic	25 X-XI	3	57
Canadian Union College (College Heights)	Seven Day Adventist	258	17	264
Edmonton Church School	Seven Day Adventist	6 X	1	35
Alberta College (Edmonton)	United Church of Canada	950	27	185
Mount Royal College (Calgary)	United Church of Canada	874	26	153
Tweedsmuir School for Girls	Non-denominational	16 X-XI	3	81

II. THE EFFECTIVENESS OF THE SMALL HIGH SCHOOL IN ACCOMMODATING ITS STUDENT

The ultimate measure of the quality of any educational institution is the extent to which it succeeds or fails in its attempt to accommodate its students.

A student is accommodated, educationally speaking, when he is provided with the opportunity to pursue the program of studies which he "needs", and when he is provided with the kinds of instruction and learning experiences which makes success attainable.

It follows that any investigation of the effectiveness of an educational institution must be guided by two hard questions: first, does the institution offer the sorts of educational programs which are needed? and second, does the institution offer its students a reasonable chance of success in the programs offered?

These two questions have guided our inquiry into the effectiveness of Alberta's small high schools.

The Program of the Small High School

The belief that every man's son or daughter has a right to a high school education became an article of faith in Alberta some time before the educational system had properly geared itself to make that article of faith operational.

When universal secondary education was accepted, in principle, and when, shortly thereafter, the inevitable population explosion struck the high school, a number of problems confronted educational leaders in the province.

It became popular to conceive of the various phases of the educative process as the steps of a ladder of continuous preparation stretching from childhood to adulthood. But one obvious and troublesome break in the ladder occurred at the point of termination of the secondary phase of education. The theory was that the comprehensive or composite high school should provide entry both to higher education and to the world of work. However, higher education was, for a number of reasons, available only to a very small percentage of the population; indeed, only about 10% of all high school students could aspire to a university education.

The developing composite high school, despite its good intentions, floundered seriously in the task of providing for the other 90% of its students appropriate preparation for life, in general, and for the world of work, in particular. Non-matriculation programs failed to achieve the status they deserved, largely because they were not developed with the same care or taught with the same care as the matriculation program was, and because they did not lead to specific and obvious ends as the matriculation program did.

So for a number of years, non-matriculation programs lacked the sense of purpose or direction—and hence, the status, the attention and the holding power—that the matriculation program enjoyed.

However, in the early 'sixties the urgent call for technically trained manpower resulted in a rapid development of technical and vocational education. The technical institutes were revitalized and charged with the responsibility of providing technically competent manpower; vocational schools were instituted to prepare young people to accept employment in a variety of occupations; and the composite high school was encouraged to share in the work of both the technical school and the vocational school.

So it happened that in the early 'sixties, the efforts of all educational institutions —universities, technical institutes, vocational schools, and high schools—became more clearly articulated with each other and with the Apprenticeship Board and the world of work.

This development tended to provide the high school with the purpose and sense of direction that it had lacked in the past. Immediately it proceeded to stream its students rigorously and to prepare for them intensive programs of the academic variety, of the technical variety, of the vocational variety, of the business variety, and of the pre-vocational variety—each designed to articulate nicely with the requirements of the university, or the technical institute, or the Apprenticeship Board, or specific industries.

As we shall see, this development led to greatly expanded programs in the secondary schools. Not only did it lead to a great increase in the number of courses and credits offered by the high school, but also to the development of carefully patterned programs. Increasingly, the trend is for various programs to include, not only the usual general education requirements, but also a specified core of particular education requirements.

The implications of this trend are clear. The once popular "cafeteria of electives" is on its way out. The trend is to offer alternative programs of patterned courses rather than alternative courses to be selected randomly. Hence, the school that merely offers fragments of programs (in the form of isolated and often elementary electives) is not in step with the emerging trend and is perpetuating the aimlessness and lack of appeal that characterized the old non-matriculation programs.

The evidence is that this is precisely what Alberta's small high schools are doing. Table XV summarizes the average number of credits offered by schools of various sizes in Alberta.

TABLE XV
Course (Credit) Offerings in Typical High Schools

Type and Size		No. of Schools*	Av. No. of Credits
I.	(1-39)	42	97
II.	(40-99)	134	136
III.	(100-199)	67	180
IV.	(200-299)	19	235
V.	(300-399)	20	276
VI.	(400+)	30	408

*Only schools enrolling grades X, XI, and XII are included in this summary.

Clearly, the Type I High Schools are offering less than a basic matriculation program—and nothing more. The Type II High Schools are offering a basic matriculation program and, in addition, about two optional subjects per grade. As the schools increase in size, the course offerings increase correspondingly, until in the large composite high schools a variety of courses equivalent to several patterned programs is offered.

What then can be said about the comparability of the educational opportunities provided by schools of various size? Clearly, they are far from equal! The Type I school offers only a partial university preparatory program. Hence, it may be said that, in terms of program, it accommodates only 10-15% of its students. The student who has the capacity, but is not university bound, is forced to take the matriculation program for whatever value it may prove to be to him. The student who is less able or not academically inclined has no alternative but to attempt and usually fail the matriculation program—or discontinue his studies, as so many do.

The Type II school offers a reasonable matriculation program and a few so-called general education options. But these options typically include only single courses in such subjects as typewriting, bookkeeping, psychology, sociology, business mathematics, art and drama. In the Type II high schools the attitude toward these electives tends to be bad and the calibre of instruction and learning tends to be correspondingly poor. Teachers (by their own admission) regard periods assigned to these coursese as non-pressure periods in an othewise busy and exhausting schedule. Accordingly, they fail to prepare properly and to set high expectations for students. Students are quick to detect these low expectations and they respond in kind. The views of many students who were questioned on this matter were summed up emphatically by one student who, when asked what he was getting out of certain electives, replied "Not a damn thing. I would have been much better off to take the matriculation program and fail it—rather than waste my time this way."

This situation improves as schools grow larger. More electives are offered; there is a more purposeful pattern to electives that are offered; and the teachers who teach general education electives tend to give them more real effort and enthusiasm.

It is difficult to draw conclusions, on the basis of program alone, as to when a school is too small to be effective. However, it seems appropriate at this point, to establish certain tentative norms to be examined later in light of subsequent considerations.

(It is of interest to note here that the administrators of the federal technical vocational education program have decided that schools enrolling fewer than 1000 students cannot hope to offer a full academic-technical-business-vocational program effectively and economically and, hence, have ruled that such schools are not eligible for the full financial benefits provided by the Act of 1961. They have ruled further, that schools enrolling fewer than 500 students are, for the same reasons, not eligible for the federal aid which is available to high schools offering business-vocational programs.)

In summary, it may be observed that students who attend Type I High Schools are seriously handicapped in terms of the educational offerings available to them; in many cases they are offered less than a matriculation program and in all cases nothing more. Students who attend Type II High Schools are also handicapped—though not quite so seriously; they are offered a reasonable matriculation program along with a few electives which, unfortunately, appear to be of doubtful value, as presented. Students who attend Type III High Schools do have the advantage of a reasonable selection of electives; but these electives are not sufficiently extensive to be patterned into any kind of a systematic preparation for post-high school life. Students who attend Type IV and V High Schools have the added advantage of electives patterned into reasonable minors in specific fields (typically business). Students who attend Type VI High Schools enjoy the privilege of selecting from a rather wide range of programs—even full-fledged technical or vocational programs in the larger schools in this category.

These comparisons of the effectiveness, in terms of program, of schools of various size in accommodating students are summarized in Table XVI.

TABLE XVI

Summary Comparisons of Programs of Typical Alberta High Schools

Type and Size of School	Scope of Program Offered	Comment and Evaluation
I. (1-39)	Partial Matriculation	Incomplete program even for matrics. Grossly inadequate. Sub-minimal.
II. (40-99)	Reasonable Matric. Few General Ed. Options	Reasonable program for 10-15% matrics. General Ed. options of doubtful value.
III. (100-199)	Full Matriculation More General Ed. Options	Good matriculation program. Options still unpatterned and low value.
IV. (200-299)	Matric & General Ed. Options Modest Minor Patterns	Good matriculation programs. Promising non-matric programs.
V. (300-399)	Matric & General Ed. Options Reasonable Minor Patterns	Good matric and General Ed. Promising in development of marketable skills.
VI. (400-499)	Matric & General Ed. Options Comprehensive Patterns	Reasonably comprehensive.
(500-999)	Matric & General Ed. Options Comprehensive Patterns Modest Vocational Patterns	Generally effective high schools. Optimum size.
(1000+)	Matric. & General Ed. Options Technical Patterns Vocational Patterns	Has all the potential to accommodate all types of students.

Student Achievement in the Small High School

In our assessment of the extent to which the small high school succeeds or fails in its attempt to accommodate its students, the second question we have asked ourselves is this: do students in small high schools have a reasonable chance of succeeding in the programs of studies which they pursue?

We have used three measures to compare the achievement potential of students of small high schools with that of students of large high schools: first, the scores of students sitting for matriculation examinations in June, 1964; second, the success of freshmen in University; and third, an informal, subjective assessment of the sense of achievement experienced by non-matriculants of small high schools.

Each of these investigations will be summarized here, in turn.

The Achievement of Matriculants

In June 1961, 20,615 students wrote grade IX examinations in Alberta—10,137 in urban centers and 10,478 in rural centers, including towns. Of these numbers, 4,560 urban students and 3,329 rural students remained in the same school and sat for matriculation examinations in June 1964.

Because the purpose of this particular phase of the investigation was to glean insights into the quality of the over-all matriculation program (grade X-XII) in schools of various sizes, only those students who remained in one school were included in the sample. Type I High Schools (40 students) had 211 such students; Type II High Schools (40-99 students) had 1004; Type III High Schools (100-199) had 1130; Type IV (200-299) had 452; and other rural high schools (enrolling more than 300 students) had 532. As indicated, the total urban sample was made up of 4560 students.

Comparisons between the scores of urban and rural students on the Reading, Verbal and Quantitative portions of the grade IX examinations—as well as on the grade IX averages—reveal that urban students are significantly ahead of their rural counterparts when they enter senior high schools. Scores on these tests in June, 1961 by urban and rural students (both the entire population and the sample to be used in this analysis) are presented in Table XVII.

TABLE XVII

Summary of Scores on Grade IX Examinations (1961)

	Total Grade IX Population		Students who later took Grades X, XI and XII in same school.	
Test	Urban	Rural	Urban	Rural
Reading	61.7	55.0	65.7	60.4
Verbal	42.8	37.0	46.0	41.2
Quant.	34.7	33.2	37.1*	37.0*
Average	60.6	56.5	66.0	63.9

*Not significantly different.

It is impossible to say exactly what factors account for these differences between urban and rural students at the grade IX level. Clearly, however, the pre-high school educational experiences of rural students are inferior to those of urban students. Very likely, the elementary and junior high schools are partially responsible. But very likely, too, the richer cultural environment that is the privilege of the city youngster contributes to his higher educational level. In any case, it may be con-

cluded at the outset of the phase of the inquiry, that rural students enter senior high school seriously disadvantaged.

As one would expect, the grade XII averages of students who remained in rural schools throughout their high school careers and sat for matriculation examinations in 1964, were correspondingly lower than the averages of those who remained in urban schools. The average for urban students who attempted matriculation was 55.5; the average for rural students was 50.9.

However, this simple comparison between grade XII averages does not give a fair picture of what actually happened in the senior high school, because the starting point (grade IX) of the two groups was not the same. Accordingly, analyses of covariance* were conducted so that the adjusted grade XII scores would show approximately where various groups would have scored had they entered grade X with comparable scholastic ability, reading skill, and grade IX achievement.

These analyses indicated that, although rural students enter grade X well behind (in comparison with their urban counter-parts), they continue to slip further and further behind throughout their high school careers*

Let us proceed now to see how students in the various types of small high schools compared in this analysis. Table XVIII presents the grade IX achievement and the grade XII achievement of rural students in schools of various sizes.

TABLE XVIII
Mean Scores of Rural Students by Size of School

Size of School	IX Average	XII Average
40 students	60.4	45.6
40-99 students	63.4	50.4
100-199 students	64.8	52.0
200-299 students		51.3
300+ students	66.0	51.0

Surprisingly, the Type V Rural High Schools (300+ students) slip rather badly on the grade XII average.* Indeed, the averages in these schools are significantly lower than in any other except the very small schools. Data are not available to account for this phenomenon. However, a number of hypotheses might be advanced:

First, it might be hypothesized that these schools, viewing themselves as large schools, attempt to offer comprehensive programs when they actually do not have adequate personnel or resources and, consequently, they over-extend themselves to the detriment of their matriculants. Second, it might be hypothesized that, since a great percentage of the students in these schools are vanned to school, attendance and, hence, achievement may not be all they should be. These are merely speculations, however. The matter requires more attention than we have been able to give it in this investigation.

*Since this particular phase of the investigation involved a lengthy and technical analysis, the full report is not included here. Instead, we have merely summarized the highlights; the full report will be published later.

*When the grade XII averages are adjusted, this phenomenon is even more glaring—as is the very poor showing of the Type I Small High Schools. Clearly the Type I schools and to a lesser extent the Type V high schools are providing far more than their share of the province's matriculation failures.

In summary, the following conclusions may be drawn:

1. Students who enter small rural high schools are seriously disadvantaged when they begin their high school careers. Hence, one must look beyond the rural high school itself for a part of the answer to the small rural high school problem.

2. The situation grows worse, however, throughout the high school grades. Matriculation students in rural schools do not have the same chance of success that urban students have.

3. Students of very small high schools, Type I, have little chance of success in matriculation.

4. Students of larger rural high schools, Type V, do not achieve as well as might be expected. The reasons for this are not clear. The matter requires further investigation.

Success in University:

As a second measure of the effectiveness of the small high school in providing opportunities for their students to succeed, we have sought to determine the comparative success of university graduates of high schools of various sizes.

An investigation presently underway by Black and associates, and recently reported in part*, indicates rather clearly that, in terms of success of graduates in university, schools enrolling more than 500 students are more effective than schools enrolling fewer than 500 students.

The findings of the study were summarized by the researchers, as follows:

> On the basis of this evidence, it was concluded that the seven categories of school size could be grouped into two categories, small high schools with twenty-five or fewer, teachers, and large high schools with more than twenty-five teachers. The findings are compatible with those of Blou and Stovall (1950) who grouped schools into two categories of less than 500 students, and 500 or more students.

As indicated in the quotation, the findings of Knowles and Black tend to be supported by the findings of Blou and Stovall who earlier conducted a similar study in the United States.*

Why do graduates of small rural high schools experience greater difficulty in university than do their urban colleagues—even when their matriculation marks are similar? A limited sample of university students who have graduated from small high schools were interviewed about this matter. Their answers were revealing. Most of them pointed to the difficulty of the transition from the small high school to the university as a major factor. In the small high school, most learning is from the textbook—though sometimes via the teacher. There is little opportunity to learn the skills that are basic to the library and laboratory research which characterizes university education. Furthermore, the very way of life of the university is so unlike the small high school, that the small high school graduate is likely to spend the first few months of his university life in a state of awe—if not downright anxiety.

Whatever the factors (and these may vary from student to student) the evidence is that the small high school graduate is not only less well prepared for university, in an academic sense, than his urban counterpart; he is less ready in other respects as well.

*Blou, J. R. and F. L. Stovall, "A Study of High School Academic Indices as a Criterion for College Admission," **Journal of Educational Psychology**, 41, 309-320, 1950.

*See Knowles, D. W. and D. B. Black "Factors Influencing the Predicition of Freshman Success at the University of Alberta, Edmonton," **The Alberta Journal of Educational Research**, Vol. XI, No. 2., June 1965, 71-82.

The Achievement of Non-Matriculants:

As indicated, our assessment of the achievement of non-matriculants in small high schools was less objective and, hence, perhaps more open to criticism than the other assessments reported here.

However, through observations and interviews, we were able to arrive at a fairly consistent view of the sense of achievement (or lack thereof) experienced by the non-matriculants in small schools. And we are prepared to believe that what senior high school students feel they are achieving is a reasonable indication of what they are, in fact, achieving.

First, it should be noted that in the Type I high schools (1-39 students) even those students who do not aim to matriculate are, nevertheless, pursuing the matriculation program, for no other program is available to them. In the Type II high schools (40-99) and the Type III high schools (100-199) the situation changes only slightly, for few electives are offered as alternatives to matriculation courses.

In general, the non-academically inclined students in these schools are frustrated —in some cases bitter. They enroll in matriculation courses, hopeful that they may be able to achieve at a level high enough for high school graduation. But in all too many cases they do not. And even when they do, they realize that success means merely the mastery of less than half of the substance of a prescribed course of studies.

Oddly enough, the typical non-matriculant's reaction to the few electives available in the smaller schools is not much better—sometimes far worse. These students sense (as we have explained elsewhere) that teachers do not place as much emphasis on the non-academic electives as they do on matriculation subjects, that they do not give them the attention that they require, and hence, that students who take these courses do not receive a fair share of the quality instruction offered by the school.

Of course, these claims are difficult to prove or disprove. Very likely they would be true in some situations, but not so in others. However, some small school teachers will wearily admit that general education electives do not receive much of their time or energy.

In summary, the following conclusions are drawn:

1. The chances of success on the matriculation program are not at all good in Alberta's small high schools. Indeed, it has become apparent that the small high schools are contributing far more than their share of failures on this program.

2. The graduate of a small high school has less chance of success at university than does the graduate of a larger high school—even though the academic records of the two students may be comparable. Apparently, there are factors other than academic preparedness involved in readiness for university.

3. Non-matriculation students in small high schools have little satisfaction with their achievement in non-academic electives.

Other Considerations

We began this particular phase of the investigation with the assumption that a school accommodates its students, first, by offering the kinds of programs that its students need and, second, by providing the quality of instruction required to

ensure its students a reasonable chance of success in the programs pursued. Accordingly, we have focused our attention, thus far, on the sorts of programs offered and on certain measures of student achievement or success.

It is possible, however, to draw inferences, regarding the issue under consideration, on the basis of other kinds of information. For example, one of the ways in which students most frequently react to lack of accommodation is by dropping-out of school. Also, student opinion regarding the apropriateness of the educational fare served by small high schools in undoubtedly influenced by the opinions of parents. As a conclusion to this assessment of the success of the small high school we shall consider briefly the matter of drop-outs and of parental opinion.

The Drop-Out Problem:

The Alberta Royal Commission on Education reported, in 1959, the results of a study* of the drop-out patterns of students who wrote the Alberta grade IX examinations in 1955. Some of the findings of that study provide a useful background for our considerations here and so are summarized briefly.

1. Of 100 students writing the grade IX examinations in 1955:
   a. 22 left school at that point.
   b. 15 left after grade X.
   c. 16 left after grade XI.
   d. 10 left after one year of grade XII without a high school diploma.
   e. 14 returned for a second year of grade XII.
   f. 25 graduated at the end of grade XII with a high school diploma.
      10 of these achieved matriculation standing.
      6 of the ten proceeded to university.
2. Small high schools tended to over-rate their students in teacher-made-and-scored tests. Accordingly, students of small high schools were more seriously jolted by the province-wide examinations (both IX and XII) and, hence, tended to drop-out more than did students of large schools.

The problem described by the Commission exists today—though it may have reduced slightly in magnitude. In the small high schools, success is a rare thing. Students react to failure by dropping out of school.

In order to determine whether or not the predictions of the Black study would hold true in 1965 and also in order to determine reasons for drop outs in small high schools, we conducted a study* of the drop-outs in one county between 1961 and 1965--exactly 10 years after the Black study.

Over 35% of the students who entered grade X in this county left school without the high school diploma (approximately 5% less than the figure reported by Black). Of those students who dropped-out, 37% did so during the grade X year, 22% during the grade XI year, and 41% during the first grade XII year.

The two most common reasons given for dropping-out of school were, first, that the programs and courses desired were not offered and, second, that school work had less appeal than labor.

As one might expect, about 95% of the students who dropped-out of Type I high schools (40 students) gave as a reason the fact that they were unable to take

*Black, Donald B. "A Longitudinal Study of the Academic Performance of a Grade IX Class . . ." **Report of the Royal Commission on Education in Alberta,** 1959, 331-333.

*This study will be reported in detail in an unpublished Master of Education thesis by K. Gavinchuk at the University of Alberta in the near future.

the courses they wanted. In the larger schools, this reason became less significant and "lack of interest" became a more prevalent one.

About 50% of the drop-outs said that "had they known then what they know now" they would have completed high school–**but they would have arranged to attend a larger school than they did.** In retrospection, 70% suggested that the high school might have prevented the drop-out by providing a more suitable range of programs and 60% bemoaned the fact that no guidance or counselling service was available to them when they needed it most.

Michael Starr, speaking as Canada's Minister of Labor had the following to say about the need to extend educational opportunities in this country.

> About 70% of the jobs available in this country today are the professional, semi-professional, technical or skilled nature, and only 30% of employment consists of semi-skilled or unskilled occupation. It is in this last category of employment that most of those with less than junior matriculation will find themselves competing, and if present trends continue, the problem will become worse as the proportion of unskilled and semi-skilled jobs in the country decrease in the future.

Obviously, Canada cannot long afford to allow its schools to so discourage students that 15 to 25% discontinue education after the junior high school phase and another 25 to 35% discontinue during the senior high school phase.

Parental Opinion:

Early in this investigation, we decided that our assessment of the present status of the small high school and our recommendations as to how it might be improved ought to be made in light of some concept of what parents believe their high schools should be. Accordingly, we interviewed a broad sample of parents in a number of areas of the province and, also, conducted a depth study of parental opinion in one particular county.

The findings, summarized briefly below, are revealing and significant.

1. Almost all parents want their offspring–particularly the boys–to have the opportunity to attempt the matriculation program.
2. In general, the parents of non-matriculation students are the most critical of the school and its program.
3. Parents believe the non-matriculation programs in small schools are unchallenging and unrewarding. Hence they believe that the matriculation program is, in fact, the best type of vocational education.
4. Parents do not object to vocational and general education electives or programs for other people's children–but **for their own, they object.**
5. Parents say that, if an alternative to the matriculation program must be provided, it should include a good deal of "liberal education" and prevocational education which is of the exploratory rather than the job-training type.*

Whether or not these parents are realistic in the views they hold, the fact remains that they have a right and a responsibility to hold views of some type. And, if the views of parents are at variance (as they obviously are) with the views of the leaders of our educational system at all levels, trouble and misunderstanding are inevitable.

*This study will be reported in detail in an unpublished Master's thesis by T. MacIsaac at the University of Alberta.

III. FACILITIES OF THE SMALL HIGH SCHOOL

Library Facilities

Our assessment of the adequacy of the library facilities available to Alberta's small high school students is based upon a number of assumptions regarding the role of the library in the educative process.

The library is an essential service center at the heart of the school program. Whether students and teachers go to the library or the library goes to them, whether they work in class groups or individually, the successful library service provides the tools of learning whenever and wherever they are needed. Books, files, pictures, pamphlets, records, tapes, filmstrips and slides are all essential to effective learning in today's high school education. To the extent that a library provides these media when required, it is successful.

Often the school library is supplemented by other library services in the community. When this is so, the extensiveness of the school library may vary correspondingly, as long as the two facilities complement each other and as long as the services of both are available.

Frequently, books and other library materials are provided on a per-pupil basis. This may be an economically-sound basis, but it is not educationally sound. The minimum acceptable standard for a library is best described in terms of the number of volumes and materials housed—irrespective of the number of students served. (Except, of course, large numbers of readers call for multiple copies of books and materials).

A pamphlet entitled "Proposed Preliminary Standards for School Library Service" published by the Canadian School Library Standards Committee sets a reasonable qualitative standard for a school library, as follows:

> The school library should maintain a comprehensive collection both to support the curriculum and to provide books for general reading, to entertain, to inform and to inspire. Since the school library meets and serves the entire school community, provision must be made in the selection of materials for varying interests and abilities. There must be comprehensive reference collections including encyclopedias, pamphlets and indexes. A wide selection of periodicals in the school library can develop appreciation and discrimination in young people. Current periodicals are needed for reference and clipping. Newspapers of local, national, and international scope should be available. Professional books and periodicals must be available.

Quantitative standards, however, are less easy to establish. The American Association of School Libraries sets both a minimum size for a school book collection (6000 books) and a per pupil standard for large schools enrolling more than 1000 students (10 books per student). The Northwestern Association of Secondary and Higher Schools in its manual for the accreditation of high schools sets an absolute minimum of 1000 volumes for schools enrolling fewer than 100 students and 1500 volumes for schools enrolling between 100 and 300 students.

The Library Association recently proposed for the Province of Saskatchewan a minimum standard of 3000 volumes for a high school library with that number increasing at the rate of 20 volumes per student for schools enrolling over 150 students.

We believe that a high school with fewer than 1000 volumes in its library is providing its students and staff with grossly inadequate library services. Indeed, we believe that a rich and comprehensive high school program calls for something of the order of 3000-5000 titles.

A picture of the typical small high school library is presented in Table XVIX, which summarizes data on approximately half of the small high schools in the province.

TABLE XIX

Numbers of Schools of Various Size Reporting Libraries of Various Size (N=157)

Size of School	Number of Volumes												
	50	100	200	400	600	800	1000	1200	1400	1600	1800	2000	over 2000
200-299	0	0	0	0	0	0	1	1	1	1	1	0	4
100-199	0	0	0	0	5	1	6	3	1	3	1	3	6
40-99	0	2	2	11	14	8	8	4	1	3	1	7	6
0-39	5	5	11	10	8	5	2	2	0	0	0	4	1

Less than half of the schools that reported (70 in all) have 1000 or more volumes in their libraries.

It is interesting to note, by way of comparison, that in a similar study conducted recently in the United States, 25% of the schools enrolling fewer than 100 students reported fewer than 1000 volumes in their libraries, 13% of the schools enrolling 100-199 students had fewer than 1000 books, and only 7% of the schools enrolling 200-299 students had fewer than 1000 books.

The situation in Alberta does not compare favorably—either with the standard adopted by the investigators or with practice elsewhere.

Instructional Equipment and Supplies

A detailed survey of the availability of modern instructional equipment in small high schools was not undertaken. However, we have been able to construct a reasonable picture of the availability and use of various kinds of instructional equipment on the basis of principals' and superintendents' responses to our general questionnaires,* social studies teachers' responses to our specific questionnaire, and the direct observations made by the survey team.

The conclusions drawn from the questionnaires may be summarized as follows:

1. In general teachers do not feel that their work is seriously impeded through any lack of audio-visual equipment. Indeed, not one social studies teacher listed the lack of A.V. material as a serious problem associated with the small high school.

2. Many teachers did, however, note the lack of reference books, maps, globes, charts, viewing materials, etc. as a problem of serious proportions.

3. The provision of proper science equipment for new courses in chemistry, physics and biology is seen as a problem. Teachers complain over the lack of such equipment; board members complain about its cost.

The observations of the survey team were of a different sort and are summarized separately:

1. Although there is a good deal of equipment of various kinds (projectors, microscopes, and the like) in most of the high schools, very little use is made of these media.

*A detailed report of a study by R. Enders of social studies teaching in small high schools will appear in an unpublished Master's thesis at the University of Alberta.

2. Frequently, the reason that equipment is not used is that no one obtains the supplies which would make the equipment usable–film for the projector, slides for the microscope, tapes for the recorder, and so on.

3. Indeed, the investigators were surprised to learn that many, many teachers are unaware of many of the new and useful instructional supplies which are now available.

4. As a result, the single text-book has remained the all-important instructional tool in most high schools. In fact, even the library, meagre as it may be is rarely used. The pressure is too great to master the text-book.

IV. LEADERSHIP AND CONSULTATIVE SERVICES

The typical city high school teacher plans and executes his teaching responsibilities under the direct leadership of a department head, who frequently has some time released from direct teaching to coordinate the work of the department. The individual teacher also comes under the direct supervision of a principal and assistant who normally are completely freed of teaching responsibilities to administer the school and to assist and supervise teachers.

In addition, the central office of the city school system normally maintains a supervisory and consultative staff of considerable size to inspect, to supervise, to assist individual teachers and to organize activities for the in-service and continuing education of groups of teachers.

Finally, and perhaps most important of all, the city teacher is a member of a department and a member of a school staff. As a result, he is continuously exposed, if the professional climate is right, to an environment in which he can share ideas and materials with colleagues and in which he can find the kind of stimulation needed to keep him professionally alert.

The small rural high school teacher is deprived of most of these advantages. He does not have a department head; instead, he is frequently the only teacher of his subject in the school–in the community. Nor does he have a supervising principal; the principal, too, teachers full time and is seldom, if ever, in any classroom but his own and seldom has time for any instructional problems but his own. Nor, indeed, does the rural teacher have call upon a "down-town-office"; the superintendent is the only person in the central office and either he or the office is likely to be many miles away from the individual teacher on any given day during the school term.

The high school inspector does visit the school periodically, but the staff turn-over in most rural schools is so high that the inspector is required to spend most of his time visiting and preparing reports on probationary teachers. Though he attempts to assist and guide teachers as much as he can, most of his time and energy is spent evaluating teachers.

So it develops that the small high school teacher is very much "on his own".

V. THE TEACHING STAFF

In 1964, Sillito and Black[1] concluded a detailed study of the Alberta teaching force and identified a number of emerging trends, including the following:

"The differences between the teaching force in the larger centers and the teaching force in the smaller centers are becoming increasingly greater."

The question that receives our attention in this section is this: In what respects does the rural high school teaching force differ from the urban high school force? The significant data may be summarized as follows:[2]

1. **Education:** About 87% of the urban high school teachers have four or more years of education beyond matriculation; only 75% of the rural high school teachers have this amount.

Only 3.5% of the urban high school teachers have two years or less education beyond matriculation; 8.5% of the rural teachers fall in this category.

Considering the various types of small rural schools, it is significant to note that the least well educated teachers teach in the smallest schools. Specifically, only 73.4% of the teachers in Type I High Schools have four or more years of education beyond matric; this percentage increases to 76.5 in Type II High Schools, to 78.9 in Type III High Schools, to 83.0 in Type IV High Schools, and to 87.0 in large city High Schools.

2. **Certification:** Though the law permits teachers holding only the Standard S Certificate to teach some high school subjects, the Professional Certificate is normally considered minimal for Senior High School teachers--particularly teachers of Grade XII subjects.

It is important to note, therefore, that in small rural high schools, where most teachers do teach advanced subjects, there are fewer Professional Certificates than there are in the city.

Specifically, only 56.3% of the teachers in Type I High Schools hold the Professional Certificate. The percentage increases to 66.1% in the Type II Schools, to 67.6% in the Type III, to 73.0% in the Type IV, and to 78.6% in the Urban High Schools.

Considered as a group, only 66% of all rural high school teachers hold the professional certificate; 78.6% of the urban high school teachers hold that certificate.

3. **Experience:** In general, rural high school teachers are more experienced than their urban colleagues. The typical urban high school teacher has had 8.3 years teaching experience. The typical rural high school teacher has had, in Type I Schools, 9.2 years; in Type II Schools, 10.4 years; in Type III Schools, 11.4 years; and in Type IV Schools, 10.2 years.

It is significant that the typical Type I high school teacher has been with one school for only 2.4 years, whereas the typical urban high school teacher has been with one school for 3.4 years.

4. **Salary:** Divisions and Counties employ about three sevenths of the total Alberta teaching force at a salary approximately 4% below the provincial average.

In a study reported by the A.T.A. in 1964, an index of 100 was set for the average salary and it was found that the comparative rates for cities and towns was 108, for villages it was 101, for divisions and counties it was 96, and for Separate School systems it was 92.

[1] Sillito, M. and D. Black, **The Alberta Teaching Force**, September, 1964, Edmonton: The A.T.A., 1964.

[2] A detailed study of the rural high school teaching force is reported in the appendix.

5. **Age:** There are no significant differences among the median ages of teachers of various sized schools—though there does appear to be a tendency for rural teachers to be a year or two older.

6. **Sex:** Nor are there significant differences in the distribution of the sexes among schools of various sizes.

In summary, it may be concluded that the typical rural teacher is less well educated, but slightly more experienced than his city colleague. Furthermore, the rural teacher is not as highly certificated and, even if he were as highly certificated, he would not be as highly paid.

In most other respects the urban and rural high school teachers are quite alike —except, of course, that the typical rural teacher teaches more subjects to fewer students and supervises more activities, again for fewer students.

VI. THE RURAL COMMUNITY AND THE SMALL HIGH SCHOOL

As we have noted, there are more than 300 small high schools in Alberta. Some of these are rather isolated and serve sparsely settled agricultural areas. Others, however, are as little as five miles apart (indeed, some are literally across the street from each other) and are linked together by first class highways.

Why do Divisions and Counties continue to operate these schools when centralization is such an obvious solution to many of the problems of smallness discussed earlier in this report? The answer, of course, is clear. The high school has, over the years, become an important institution in dozens of villages and small towns in this province. And the citizens of these towns and villages are quite prepared to fight for the existence of their high schools—even if the price they pay is grossly inferior educational opportunities for their young.

There are a number of forces at work in this plot. It is difficult to summarize them briefly and definitively. Indeed, it may be impossible to summarize them definitively, for as we have noted, the forces tend to vary greatly from community to community. However, we shall attempt to describe some of the forces which we believe should be noted—and in some cases, exposed.

Economic Forces

It is a well recognized economic fact, that educational institutions of all sorts contribute significantly to the financial well-being of the community in which they are located. The small high school is no exception. So, it is not surprising that local merchants and the local Board of Trade (or equivalent) in any community which is not likely to be selected as the site of a centralized school, typically oppose the centralization.

Campaigns against centralization take the form of political activity. And as so often happens in political activity, the protagonists keep their real motives hidden and attempt to gain popular support through catching slogans and criticisms that have nothing at all to do with economics.

Undoubtedly, this has happened and will continue to happen as the movement in high school centralization progresses. Small town business interests will oppose the movement—but will express opposition in non-economic terms.

Civic Forces

In this province, the small-town school often becomes, so to speak, the heart of the community—the cultural and civic center. Very often, the high school is the the sponsor of all community activities in the field of art, music, drama and athletic competition. Hence, it becomes the focus of community spirit and pride.

When this happens, the very thought of losing the high school to a rival community, arouses in citizens all sorts of emotion and hostility.

So it is that the prospect of high school centralization is not a pleasing prospect to the residents of most small towns. Almost subconsciously, the potential advantages of centralization are minimized and the disadvantages maximized in the minds of citizens. Centralization becomes merely a device for achieving bigness and administrative convenience—and resistance develops toward the "provincial educational bureaucracy."

This phenomenon is completely understandable and to be expected. It must not be interpreted as sheer stubbornness or lack of educational aspiration on the part of small town citizens. It represents a force to be taken into account.

Vested Interests of Professional Educators

Elsewhere in this report (Chapter II, p. 50) we described the characteristics of the rural high school teaching force and pointed out differences between the typical rural high school teacher and the typical urban high school teacher.

One further characteristic of some (perhaps only a few) rural teachers deserves attention at this time. It is the tendency of certain rural high school teachers to assume importance as policy-makers in small towns. The teacher most likely to assume this position of influence is the firmly entrenched, resident teacher who fully expects to spend his or her entire career in one small high school.

Such a teacher is likely to be either a housewife who, years ago, was enticed back to the classroom to help combat the teacher shortage problem or a man who has risen to the principalship, who enjoys rural life, and who, consequently, has become a "career small-school-administrator."

Both the housewife and the career small-school-administrator have personal interests in the small high school. Their futures are tied to it in a very real way.

Many such professional educators (though certainly not all) sing the praises of the small high school whenever the opportunity presents itself: they assure parents that the small school provides the best in secondary schooling for the youth of the community; and they indoctrinate parents with negative attitudes and fears regarding centralization and large high schools.

Some of these teachers, particularly the principals, assume positions of some prominence and influence in the community. Hence they are able to exercise considerable control over the educational point-of-view of the citizens.

[In one community, visited by this writer, the school principal and the president of the Chamber of Commerce organized a meeting of citizens, for the purpose of mustering resistance to this study and to the centralization of high schools —which the principal assumed the study would recommend.]

VII. POPULATION, OCCUPATION AND ETHNICITY

Population Trends

The population of the Province of Alberta is steadily increasing. But the number of resident farmers in the province is steadily decreasing. Indeed, like all other advanced countries, Alberta is characterized by a high degree of industrialization and urbanization.

The combined effect of the exodus from the farms and the migration to the small towns renders most Divisional and County populations rather stable with only modest increases in most areas. The major increases are occurring in the cities and in the residential towns adjacent to the cities.

So it may be predicted that most of rural school divisions and most of the isolated towns will not grow appreciably in the near future.

Occupational Trends

Industrialization is an urban phenomenon. It is the industrialization in the cities, with its attendant demand for manpower, and the mechanization of farming, with its attendant decrease in manpower needs, that result in urbanization.

In six randomly selected divisions or countries in Alberta, the number of people engaged in farming decreased by more than 600 or approximately 2% between 1956 and 1961.

It may be safely predicted that, in the future, the number of persons engaged in farming and non-skilled labor will decrease further; the demand for skilled workmen will increase correspondingly.

Ethnicity

In the early settlement days, there was a tendency in Alberta for persons of similar ethnic origin to concentrate in various areas of the province. This tendency, though not as pronounced as it once was, still persists and influences the character of many communities throughout the province. For example, in 1961 census, certain Alberta communities were found to be as high as 75% Ukrainian or French.

Almost invariably ethnicity is bound up with values—and, indeed, often with religion. Accordingly, in communities where the concentration of persons of common ethnic origin is high, the attitudes and values of the citizens is likely to follow "the ethnic party line". Minority ethnic groups tend to band together, to form highly cohesive groups and to present a united front against changes which are likely to endanger the "togetherness" which they feel they need to guarantee their own security.

Concentrations of citizens of like ethnic origin have influenced and will continue to influence certain small high schools. The exact nature of the influence varies, however, from area to area. Accordingly, it is difficult to generalize; each situation must be regarded as unique and the influence of ethnicity upon educational values assessed in light of local conditions.

VIII. RELIGION AND SEPARATE HIGH SCHOOLS

There are several (49 to be exact) small high schools in the Province of Alberta that exist because of the influence of religion. Forty-five of these are Roman Catholic

Separate High Schools; three are Protestant Separate High Schools; and one is a Roman Catholic Public School in a County which operates its own public high school.

The separate school system has continued in Alberta since territorial days. The system was initially instituted and since has been perpetuated as a device for safeguarding the rights of religious minorities in educational matters.

We have no intention, in this report, of questioning the wisdom of the lawmakers who established the separate school system. Nor have we any intention of questioning the right of religious minorities to establish and operate their own religiously-oriented high schools. We suspect, however, that the conditions that first gave rise to separatism in education in this province have since changed appreciably. And we belive that, in many areas, a greater degree of cooperation between public and separate school authorities might be contempated and, if achieved, might result in better education for the children of all parents—both Catholic and Protestant.

Accordingly, we have decided to deal with the matter briefly.

The Catholic Philosophy of Education

It is difficult, if not impossible, to describe "the Catholic philosophy of education", for authorities tend to differ on the matter—to some extent in the details of the philosophy itself, but to a greater extent in its implications and practical applications. The following statement, however, quoted from the March, 1958 issue of the Bulletin of the Alberta Catholic Education Association, is assumed to be an accurate and concise statement of the position:

> It is quite clear that Catholics regard certain things as essential to the Catholic theory of education, certain things as accidental. To put it in other words, a Catholic as a Catholic is not free to accept or reject the essential postulates of Catholic Education; on the other hand, as an individual he may disagree—violently, if need be—over the accidentals of Catholic education.
>
> a. **Nature of Man.** The whole theory of Catholic education depends on the Catholic doctrine regarding man, his nature and supernatural destiny. From the Catholic concept of the nature of man follows the primary objective of Catholic education, its theory of values. Everything else is subordinate to this ultimate aim of Catholic education. Every demand that the Church makes, every disciplinary regulation is based on her supernatural viewpoint. The whole history and theory of Catholic education is unintelligible unless the Church's teaching on the supernatural be grasped.
>
> b. **Nature of Truth.** Truth exists and the human mind can attain truth. Reason is capable of reaching with complete certainty the most sublime truths of the natural order, but with difficulty and only when duly trained. Therefore, the school or teachers have a right and a duty to aid the pupil to attain these truths. There are also truths of the supernatural order which the mind can never know unaided. For this, revelation is needed. The Catholic school again has the right and duty to present these truths to the child since he could never learn them unaided.
>
> c. **Agencies of Education.** The school, the family and the Church all have the right and the duty to educate in the Catholic system. Since man has a supernatural destiny, any education system that fails to impart religious instruction is not acceptable to the Catholic. For the Catholic believes that religion is an essential part of education, since it is indispensable for right living here and for eternal life hereafter.

Accidentals in the Philosophy of Catholic Education

a. **Curriculum.** The Catholic as a Catholic is not concerned with curriculum. As a humanist he may demand training in the liberal arts; as an essentialist he may insist on a curriculum made up of traditional subjects, a curriculum that is not a "rope of sand"; as a "utilitarian" he may insist on training in practical subjects.

The one thing the Catholic will insist on is that, whatever type the curriculum may be, the first place must be assigned to religion.

b. **Method.** Still less is the Catholic as a Catholic concerned with method. He may advocate the outmoded method of drill; he may believe that the project method or the problem method has a place in his schools; he may insist on interest as a keystone of all educational progress; he may employ the methods of "progressive" education, while necessarily rejecting their underlying philosophy of naturalism; and there is no one to say him nay. Eevery acceptable method of learning must be based on the theory that all education is self-education. Consequently method, as distinct from profession, must have as its aim the educational profession, must have as its aim the teaching of the child to think for himself, to express adequately his own thoughts, and to appreciate in a humane way the true, the beautiful and the good.

c. **Freedom vs. Discipline.** The Catholic school, even those conducted along "progressive" lines, believes in discipline, but that discipline must eventually be self-discipline. Undoubtedly, Catholic schools differ among themselves in external discipline from the progressive type to the ultraconservative type that is perilously close to regimentation. Yet every Catholic school would admit that discipline is necessary. Discipline means right order. And every Catholic teacher knows that his charges are not angels, but very human beings, with all the limitations of human nature. Not a depraved nature certainly, but deprived and with the "wounds of nature" that need watchful guidance in order to lead him on to his last end. Regimentation may accomplish this externally, but self-discipline is the real answer. A child will be good if he wants to be good. A child will learn fractions if he wants to learn fractions. It is the teacher's business to make him want it. That is the essence of good method, however it may be applied.

A Final Word

The main difficulty for the reader of all the foregoing will be his inability to see what may be called the architectonic structure of Catholicism and Catholic education. The reason is that Catholics and non-Catholics have come to talk two different languages. The background of their thought is not the same. This is true not merely in the religious sphere but in the whole of life. Hence, the difficulty of understanding the Catholic theory of education.

There are two things particularly which set off the Catholic from the non-Catholic world. There is in the Catholic a singular unity of thought that springs from his totality of outlook that is particularly irritating to the non-Catholic. The Catholic never forgets at any time or place the totality of being—God, man and cosmos. The other provocative feature of Catholic thought may be styled other-worldliness. This is not to imply that Catholics are necessarily holier than other people; still less that they are the only people who believe in the world to come. The modern non-Catholic feels sure of what he has; he is not sure—not so sure, at all events—of what is to come. Therefore, quite logically he emphasizes living in this world. Probably he reasons, there is another world, but let us make this one that we are sure about a better place to live in. For the Catholic on the other hand, the idea of the world to come looms large; it makes its presence felt in a greater number of spheres. To him the thing of utlimate importance is not here but hereafter. Not, of course, that the Catholic does not recognize values in this world; he enjoys, as any other, natural truth and beauty and goodness; the glory of this world, of mountain and sea and plain; the glow that comes from family life and human friendship finds an echo in his heart; they are good and true and beautiful but they lead him on to the Creator of all these manifold delights made for him. "The heavens announce the glory of God."

With his philosophy of supernaturalism, the Catholic rests his case for education and for everything else in the world. Reactionary he may be, even dangerous to modern life, but at least in the light of his first principles he believes that he is consistant.*

It is interesting to note that this statement distinguishes between the "essential postulates" and the "accidentals" of Catholic educational philosophy. And it is interesting, in light of this distinction, to inquire into the prevailing situation as opposed to what might be with regard to separatism in education in Alberta.

*The Alberta Catholic Education Association Bulletin, Vol. 10, No. 4, March 30, 1958.

Traditionally, Catholics have assumed that the kind of education indicated by their philosophy could be provided only in an independent school system, completely separated from the public school system.

Today, however, certain educational and religious leaders who were interviewed appear to doubt the validity of that assumption. Indeed, they have serious misgivings over the practice of separation and isolation—as apparently Pope John had when he initiated the Ecumenical Movement. Many separate school leaders--following the example of Pope John—have expressed the belief that the educational rights of religious minorities can be protected without complete separation. They see a good deal of common concern among the advocates of ethical education of all faiths. And they have expressed the position that it is not absolutely essential—not even particularly desirable—to have all educational experiences organized within the protective atmosphere of the separate school.

These ecumenical-type thinkers appear to be making the kind of distinction that was made in the article quoted above. They hold out staunchly for those matters which constitute the "essentials" of Catholic philosophy. But they adopt a good deal of flexibility as they consider the application of the so-called "accidentals" of the philosophy. Questions currently being posed by such thinkers are: Might there not be considerable merit in having students of many faiths come together, in the ecumenical spirit, for at least some of their educational experiences? Does the belief that religious instruction is of paramount importance necessarily or logically lead to total separation?

The Distribution of Separate High Schools in Alberta

The Catholic Separate High Schools which presently exist in the Province of Alberta are listed in Table XX, along with the numbers of students, credits and teachers.

TABLE XX

Students, Credits and Teachers in Roman Catholic Separate High Schools of Alberta

	X	XI	XII	Total Credits	Teachers
Assumption (Oyen)	6	0	0	6	2
St. Mary's (Westlock)	9	0	0	9	3
Fort Vermilion	4	5	1	10	3
Spirit River	10	5	0	15	2
St. Stephen's (Valleyview)	12	3	0	15	5
Sexsmith	10	7	0	17	1
Salisbury	18	0	0	18	3
Killam	10	9	0	19	2
Bowness	21	0	0	21	3
Grimshaw	15	9	0	24	3
Rosary (Manning)	15	9	0	24	3
St. John's (Fort McMurray)	10	14	1	25	4
Provost	13	14	0	27	3
St. Anthony's (Drumheller)	14	17	0	30	4
Bow Island	18	11	7	36	4
St. Catherine (Picture Butte)	12	13	11	36	3
Wainwright	19	10	8	37	5
High Prairie	13	10	16	39	4
Theresetta (Castor)	18	14	7	39	3
Glenmary (Peace River)	11	19	12	42	4
St. Martin's (Vegreville)	15	12	16	43	5
Clandonald	18	18	15	51	5
St. Jerome's (Vermilion)	19	10	22	51	5
Providence (McLennan)	24	11	18	53	4
St. Thomas More (Fairview)	21	17	18	56	5

St. Dominics (Cold Lake)	20	19	20	59	115	3
St. Michael's (Pincher Creek)	29	19	23	71	135	5
St. Patrick (Camrose)	32	21	24	77	143	4
St. Mary's (Taber	32	19	29	80	146	7
St. Thomas Aquinas (Red Deer)	50	45	30	125	190	12
Holy Cross (Calgary)	48	39	39	126	164	8
St. Joseph's (Grande Prairie)	62	51	28	141	155	8
St. Joseph's (Lethbridge)	50	61	45	156	199	10
St. Francis (Lethbridge)	74	51	64	189	214	13
McCoy (Medicine Hat)	71	64	64	199	215	13
St. Mary's Boys' (Edmonton)	74	61	97	232	249	15
St. Mary's Girls' (Edmonton)	84	85	84	253	242	18
St. Francis X. (Edmonton)	115	105	102	322	235	17
Austin O'Brien (Edmonton)	130	127	94	351	253	20
O'Leary Boys' (Edmonton)	169	140	152	461	233	
St. Mary's Girls' (Calgary)	156	167	147	470	267	24
O'Leary Girls' (Edmonton)	202	165	107	474	286	
St. Mary's Boys' (Calgary)	178	161	161	500	268	25
St. Francis Boys' (Calgary)	231	239	256	726	289	36
St. Joseph's (Edmonton)	396	411	494	1301	652	60

In addition, there are three Protestant Separate High Schools in the Province—one in St. Paul, one in Bonnyville, and one in St. Albert. There is both a R.C. Public High School and one Protestant Public High School in Morinville.

Chapter II.

RECOMMENDATIONS, TYPE A ON THE NECESSITY AND FEASIBILITY OF MAINTAINING SMALL HIGH SCHOOLS

It should be recalled, at this time, that our investigation had three specific purposes:

1. to study and assess the small high schools of the province and to make recommendations as to the feasibility of continuing to operate all of the small high schools that now exist;

2. to study the strengths and weaknesses of small high schools and to make recommendations as to ways and means of strengthening "necessarily existent small high schools"; and

3. to study the forces influencing or inhibiting change in small high school education in Alberta, and to recommend strategies for the implementation of the improvements recommended for the small high school.

It is difficult, of course, to keep these purposes completely separated and to categorize our recommendations to correspond neatly with them. However, we shall attempt to do just that and shall refer to our recommendations as Types A, B, and C—corresponding to purposes 1, 2, and 3 listed above. Each type of recommendation receives our attention, in turn, in one of the succeeding chapters.

Type A recommendations, on the necessity and feasibility of continuing to operate all the presently existing small high schools of the province, grow directly out of our investigation of the small high schools themselves. Accordingly, we shall preface these recommendations with a brief summary and discussion of these findings.

SUMMARY OF FINDINGS

1. During the 1964-65 term, Alberta operated 316 high schools enrolling fewer than 300 students. Of these, 92 enrolled fewer than 40 students.

2. In many instances, small high schools are not separated from each other by great distances or by unsatisfactory transportation facilities. Indeed, many small high schools are only 5 to 10 miles apart and are joined by first class highways.

3. Only the larger of the large urban high schools (more than 500 students) offer completely adequate programs; those in the middle range, types IV, V, and VI (200-499 students) offer reasonably full programs; type III small high schools (100-199 students) offer quite limited programs; type II small high schools (40-99 students) offer inadequate programs; and type I small high schools (fewer than 40 students) offer grossly inadequate programs.

4. The achievement of students in large urban high schools (more than 500 students) is, in all respects, superior; the achievement of students in medium sized rural high schools. Types II, III, IV, and V is only mediocre; the achievement of students in the very small, Type I high schools is grossly inferior.

5. Library, instructional supplies and equipment, leadership and consultative services approach adequacy in the large schools; they are minimal in the medium sized schools; and they are grossly inadequate in the very small high schools.

6. Teaching talent is not equitably distributed between urban and rural schools. Urban teachers are, in general, better educated than rural teachers. Nevertheless, rural high school teachers are required to teach more courses and to master more fields of knowledge than are their urban colleagues. However, the teacher-pupil ratio is almost twice as high in rural high schools as it is in urban high schools.

7. A number of social forces (community pride, economics, ethnicity and value systems) operate for the preservation of small high schools. Many of these attitudes persist in spite of a realization on the part of citizens that inferior educational opportunity characterizes most small high schools. A partial explanation for this situation is to be found in the fact that many citizens are uninformed and/or misinformed as to the recent and developing trends which tend to make secondary education more complex than it was in days past and much more difficult to provide in small schools.

8. Religion (and the legal provision for separate schools) continues to be one of the major factors producing smallness in schools. However, the signs are that both leaders and supporters of separate high schools are concerned over the ineffectiveness that has attended separateness and smallness in secondary education.

Indications are also, however, that separate high school supporters are reluctant to explore avenues of cooperation with the public high schools because they are fearful of losing certain rights which they consider to be important.

DISCUSSION

On the basis of these findings, one is able to proceed to categorize schools (roughly) according to size and effectiveness. Those enrolling more than 500 students, staffed with specialized teachers, equipped with the facilities appropriate to the program offered, and, hence, providing students with a good chance of success, might be referred to as **optimum-sized high schools.** Schools enrolling between 200 and 500 students, offering more than 225 credits and equipped to offer students a reasonable chance of success might be referred to as **modest but reasonable-sized high schools.** Schools enrolling fewer than 200 students, offering fewer than 225 credits, providing inadequate staff and facilities, and offering students little chance of success, might be regarded as **sub-minimal.**

Indeed, many schools in this latter category must be regarded as **less than complete high schools.** They offer less than a high school program; they have less than a full complement of teacher talents; they have nothing resembling the library or facilities required for a complete secondary education; and they hold out to their students less than a reasonable chance of success. To repeat — they are, in all respects **less than complete nigh schools.**

It follows that students who do not have access to an optimum-sized high school (500 or more students) are on the fringes of educational opportunity; students who do not have access even to a reasonable sized high school (200 or more students) are seriously disadvantaged!

In spite of all this evidence, however, it must be recognized that powerful forces are at work perpetuating the small high school. Such considerations as local economics, community pride, value systems, and religion must not be discounted. Indeed, it is

doubtful if the evidence presented above is sufficiently compelling to convince local citizens that they ought to give up their small high schools in favor of further centralization – at least, not in favor of further centralization **of the kind they have come to know.**

It is doubtful, too, if most separate school supporters would even consider union with the public schools. Although many separate school people realize that union would result in certain advantages in some areas of education (largely the academic and vocational), they fear that serious disadvantages might result in other areas (largely the moral and religious).

Nevertheless, it is significant that the supporters of all small schools – both public and separate – do admit to the disadvantages of smallness. Most parents and educational leaders want improved educational opportunities for their youth – but they are not convinced that centralization is a reasonable price to pay.

It is clear to us that the ineffectiveness, the duplication of services, and the inequality of educational opportunity that have attended the proliferation of small high schools throughout the province are deplorable. It is clear to us, too, that an "administrative solution" to the small high school problem would result in all kinds of resentment and hostility.

Nevertheless, we believe that if the problem were attacked reasonably and with genuine concern for the interests of all parties, improvement could be effected. Accordingly, we recommend as follows:

RECOMMENDATION I. That schools enrolling fewer than 200 students not be accorded "full high school status"; that such schools, in future, be designated as "partial or special purpose high schools"; and that such schools be required or encouraged to become a part of a "larger high school complex". (All recommendations, including "the larger high school complex" will be elaborated later in this section).

Special Note: This recommendation should be regarded as imperative in the case of Types I and II high schools – particularly Type I (fewer than 40 students.) Supporters of such schools must cease to pretend that they offer a full secondary education or that they are high schools.

RECOMMENDATION II. That the services and opportunities inherent in the "optimum-sized high school" be made available to every youth in the province – either through the development of "optimum-sized high schools" in strategic locations and/or through the creation of "larger high school complexes" in certain areas of the province.

RECOMMENDATION III. That all interested parties (A.S.T.A., A.T.A., Department of Education, etc.) become involved in an information program designed to familiarize citizens with recent and impending changes in secondary education and designed to engage citizens in a search for ways and means of improving high school services in the rural areas of the province.

RECOMMENDATION IV. That in areas where good relations and mutual respect prevail, separate and public high school boards and administrators hold discussions to explore ways and means of extending cooperation and shared services, perhaps, within the context of the "large high school complex".

RECOMMENDATION V. That Department of Education officials (Inspectors, Superintendents, etc.), and boards or school committees of each of the six zones of the province come together to explore the feasibility and desirability of establishing

"optimum-sized high schools" on a zone basis and/or of experimenting with the "larger high school complex".

RECOMMENDATION VI. That the "larger high school complex" be established, not only by closing existing small high schools, but also, and more important, by removing the independence and autonomy of several small high schools and by bringing these schools together into a single secondary education complex — with a number of campuses, but with ONE program, ONE staff, ONE set of facilities, ONE library, and ONE supervising principal.

RECOMMENDATION VII. That as the regional or junior college flourishes throughout the province, consideration be given to making it the center of the "larger high school complex" with the staff and resources of the college serving, in part, the needs of the satellite high school units in the region.

RECOMMENDATION VIII. That recommendations I to VII above, including the notion of the larger high school complex, be embodied in a new educational institution which might be known as the MULTI-CAMPUS HIGH SCHOOL.

THE MULTI-CAMPUS HIGH SCHOOL

It is abundantly clear that the small high school problem will never be resolved simply through a continuation of the controversy over the closure or non-closure of existing high schools. Although it is true that, on educational grounds alone, many small high schools should be closed, it is equally true that, for other reasons, many small high schools will not be closed.

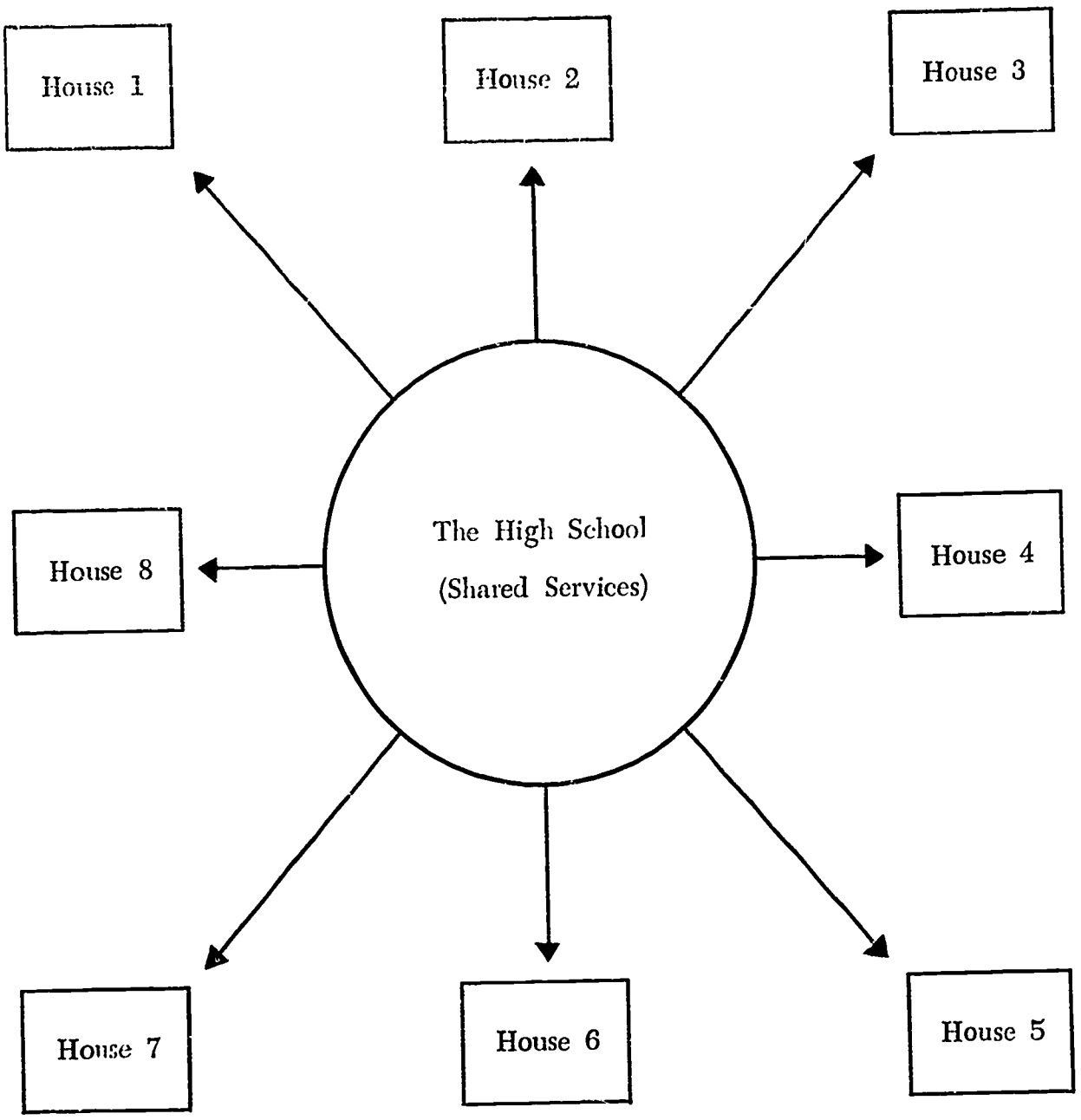
The issue is a complex one and should not be contested on an open or closed, black or white basis. Instead, persons responsible for secondary education in the rural areas are advised to become more creative, more imaginative, and attempt to develop ideas and plans that go beyond the alternatives embodied in the status quo.

The concept of the **Multi-Campus High School** is advanced as one such thrust of the imagination.

The person who considers this idea with a mind-set rooted firmly in the status quo is likely to think of all sorts of reasons why the idea will not work. However, the rural educator who is willing to be imaginative may find in this recommendation the germ of an idea which, if developed, may open up to him alternatives beyond those presently available.

The idea of the multi-campus high school is primarily a concept which permits one to regard the students of several small high schools as a single student body, the staff of several high schools as a single staff, the resource of several high schools as a single unit of resources, and the buildings and grounds of several high schools as campuses of one high school complex.

A model for this sort of plan has been suggested by certain very large high schools, where the problem has been bigness, not smallness, and where to overcome the problem, the high school has been divided into a number of Houses — each House assigned to a particular area of the campus. This model might be illustrated as follows:



The House or Multi-Campus system has taken a number of forms — depending upon circumstances. In some cases, Houses have been formed simply by dividing the school by grades. In other cases, however, Houses have been formed to correspond with specific purposes and to take full advantage of teacher talents.

It takes but a simple thrust of the imagination to envision multi-campus high schools in Alberta, created on the model described above, but created to overcome the problem of smallness rather than bigness, and created by bringing several small schools together, so to speak, rather than by dividing a large school into a number of parts.

The multi-campus high school in Alberta might be characterized by the following features.

1. Several (in some cases 20 or more) presently existing schools (of all sizes) might be brought together, organizationally, and placed under the leadership of a highly creative and energetic educator, who might be known as the supervising principal.

2. One of the important functions of the supervising principal and his staff would be to keep a continuing inventory on all high school students in the region so that they could anticipate student needs on every campus and plan and staff accordingly.

3. Each year, each campus would perform only those functions which it had been properly staffed and equipped to perform. In some cases, this might be only a limited number of grades; in other cases, specified subjects.

4. Very likely the school year would be divided into a quarter, semester, or trisemester system so that small campuses might concentrate for short periods of time on subjects they were prepared to deal with well.

5. Residences, or other accommodations, would be provided to house students — sometimes for a quarter or semester, sometimes for a week, and sometimes overnight.

6. Students, staff and facilities would move from campus to campus for special purposes and for short or longer periods of time.

7. The total school would be under the principalship of an outstanding secondary educator; each house or campus would be under the direct leadership of a vice-principal (or the like); and the teachers of all campuses would comprise a single staff responsible for the educational programs of all students.

8. Flexibility would characterize the enterprise, so that special conditions could be dealt with as they appear and so that teacher talents could be fully utilized wherever they might be.

9. Under the leadership of an imaginative and dynamic principal, the staff would begin to experiment with a variety of techniques for improving the quality of instruction offered.

NOTE: This brief description of the functioning of the "Multi-Campus High School" has been presented here, merely to add a degree of feasibility to our Type A Recommendations. The next portion of this report, Section B, describes in some detail a series of proposals for improving the services of rural high schools. Though we believe that many of these proposals have merit in their own right and are not necessarily dependent upon the acceptance of our Type A Recommendations, it will become apparent to the reader that the implementation of certain proposals would be greatly facilitated through the establishment of "Multi-Campus High Schools" or some similar complex.

Chapter III.

RECOMMENDATIONS, TYPE B ON THE STRENGTHENING OF NECESSARILY EXISTENT SMALL HIGH SCHOOLS AND UNITS OF MULTI-CAMPUS SCHOOLS

In the last chapter, it was recommended that multi-campus high schools be established where these are geographically feasible throughout the province.

This recommendation grew out of two convictions: first, that small high schools do, in fact, provide inferior educational opportunities; second, that in spite of the evidence supporting this fact, local citizens are likely to continue to resist further centralization of the traditional kind.

The recommendation may be regarded, then, as something of a compromise recommendation. It takes into account the fact that many small high schools will inevitably continue to exist in the province for years to come but urges that they continue to exist **only as special purpose or partial high schools, sharing in the services or larger high school complexes — multi-campus schools.**

It follows that, if small high schools are to continue to function, even as parts of larger complexes, steps must be taken to improve the educational services they provide.

In an effort to develop recommendations as to how small high schools or units of multi-campus schools might be strengthened, two investigations were conducted:

First, principals of small high schools throughout the province were asked to respond to the following questions: (1) What are the greatest weaknesses of small high schools? (2) How might these weaknesses be eliminated or minimized? (3) What are the potential strengths of small high schools? and (4) How might these potential strengths be developed and utilized?

Second, a study was made of the innovations and experiments presently underway in two small high school projects in the United States — the Western States High School Project and the Catskill Area Project.

Both of these investigations were useful in the development of Type B recommendations — on the strengthening of necessarily existent small high schools.

The responses that Alberta principals gave to the question about the greatest weaknesses of the small high school divided neatly into four categories. In brief, the chief weaknesses perceived by principals were as follows:

1. The inability of the small high school to offer the sorts of programs needed by students.

2. The inability of the small school to attract and retain strong teachers, able to cope with the instructional demands of the small school.

3. The inability of the small high school to provide the equipment and facilities required for adequate secondary school learning experiences.

4. The lack, in the small high school, of so many of those activities (counselling, athletics, cultural activities, and so on) which go to make up a rich secondary school experience.

Interestingly, a large number of the principals maintained that nothing could be done to eliminate or minimize the significance of these weaknesses. They appeared resigned to the fact that the small high school is and will continue to be an inferior educational institution.

Several, however, suggested that further centralization of rural secondary schools along with increased revenues to rural schools, would result in improvement.

Several suggested, also, that bold, imaginative steps could and should be taken to strengthen the instructional programs of small high schools without drastically altering the organizational patterns that now exist. (Many of these suggestions are included in the Type B Recommendations to follow shortly).

The chief strengths, or potential strengths, of the small high school, as perceived by principals, were as follows:

1. The intimacy and understanding that develop between teacher and pupils and between teacher and community.

2. The simplicity that characterizes small school organization with its attendant flexibility, freedom and cooperation.

3. The lack of rigid screening and streaming of students for academic programs and the resulting increase in general education for all students.

4. The lack of competition in extra-curricular activities and broader participation that results.

5. Lower pupil-teacher ratios and the increased individual instruction that is possible.

Again, a large number of principals indicated that little could or should be done to capitalize upon these potential strengths. Indeed, many appeared willing to accept these potential strengths as real strengths and, hence, as adequate justification for the maintenance of the status quo in rural secondary education.

Others, however, expressed the opinion that these potential strengths, though developable, could never compensate for the inherent weakness of the small high school.

Still others advanced concrete and imaginative suggestions as to how potential strengths might be developed and utilized to improve the institution. (Many of these suggestions, too, are included in the Type B Recommendations to follow).

It should be noted, at this point, that most of our respondents (as well as the large number of people interviewed) revealed serious biases — almost prejudices — on the small high school issue. For every individual who was disposed to criticize the small high school hotly and argue for its disestablishment, there was at least one other individual just as disposed to defend the small high school and argue emotionally for its continued existence.

The chief reason that the on-going argument has generated so much heat and so little light is that each participant in the argument rests his case on certain ques-

tionable assumptions and stoutly refuses to consider the equally questionable assumptions of his opponent.

For example, some of the principals who were interviewed (those in favor of the small high school) rested their case solely upon one potential strength, namely the intimacy that develops between teacher and pupil. And they stubbornly refused to consider such perceived weaknesses as inadequate program, lack of facilities and so on.

Similarly, many educators who condemned the small high school based their case solely upon the perceived weaknesses and refused to admit that there might be even potential strengths in smallness.

If this report, along with its recommendations, is to serve its intended purpose and advance professional thinking on the small high school issue, it seems imperative that readers stand prepared to analyse and place in proper perspective all the claims and counter claims that are currently in vogue.

Consider, by way of example, the following questionable assumptions one frequently hears expressed:

Questionable Assumption #1. "The problems of quality in rural education is limited to the high school."

The evidence (see Chapter II) is that this assumption is downright false; there is as much deprivation in rural elementary education as there is in secondary education. In general, rural students enter the high school seriously disadvantaged.

Questionable Assumption #2. "Centralization, along with extended van routes, dormitories and so on, will resolve the problem of inferior education in rural areas."

Again, the evidence casts doubt upon the assumption. (See Chapter II). Consolidation of high schools does obviously provide certain opportunities for improvement. But it does not guarantee improvement. Indeed there is some evidence to suggest that extended vanning, in the traditional mode, may hinder certain students' educational advancement.

Questionable Assumption #3. "All that is needed is more money."

A small school, in a small community will remain, in many respects, deprived – even if it is given an abundance of wealth.

Questionable Assumption #4. "To improve, one need only to copy a bigger model."

When big school practices are copied by small schools, rigidity is projected into a situation which is inherently flexible. Little else may be accomplished.

Questionable Assumption #5. "All the small rural schools need is better teachers."

If this were true, the appropriate remedy might be simply to increase the salaries of rural teachers and fire the administrator who fails to recruit the best. But it obviously is not true. Rural teachers typically work under serious handicaps, it is unreasonable to expect teachers alone to compensate for the inherent weaknesses of the small high school.

Questionable Assumption #6. "Smallness allows intimacy which, in turn, results in high quality education."

This could be true, in certain situations. But it is just as likely to be false in others. It is a well known fact that closeness and intmacy very often cloud one's judgement and lead to inaccurate assessment and inappropriate treatment.

Earlier in this report (see Chapter II) an examination of certain evidence led us to the conclusion that the small high school does, in fact, provide educational services which are inferior to those provided by larger schools. An examination of the above assumptions (along with the opinions which appeared to be based upon them) leads us to conclude as follows: there are certain disadvantages in bigness; there are also certain potential advantages in smallness; but there are, as well, certain disadvantages in smallness.

It follows that the small high school should not only attempt to eliminate some of the inevitable disadvantages of smallness and achieve some of the advantages of bigness, through the considerations of changes such as those in out Type A Recommendations, **but should also** consider ways and means of capitalizing upon the potential strengths of smallness and overcoming the weakness of smallness.

We believe that this may be done in four different ways: **first,** by planning for better utilization of available teacher talents; **second,** by supplementing human talents with available educational technologies; **third,** by supplementing available teacher talents with other human talents; and **fourth,** by increased cooperation and sharing of resources (both personnel and material) among the units of a multi-campus high school.

Accordingly, we recommend as follows:

RECOMMENDATION IX. That the patterns for utilization of available teacher talents be improved through the adoption of a variety of procedures including the following:

a. **Multiple Classes.** This is simply a situation in which a teacher conducts two classes simultaneously.

The technique has the obvious advantages of extending the curriculum and saving teacher time.

Preferably (though not necessarily) the content of the two courses is related and class periods are extended slightly.

In this situation, the teacher should be aided by taped lectures and other instructional technologies. Also, the classroom should be large and equipped with library and resources.

Traditionally, we have resisted this practice because we have felt that inferior instruction would result and because we have felt that students would be cheated — inasmuch as they would not receive continuous teacher attention. In fact, however, the provision of full instructional time has, in all too many cases, led to the belief that good teaching is synonymous with continuous talking. The evidence is that too much teaching (of that type) often inhibits learning. Students who are forced to engage regularly in independent study profit from the experience.

A number of schools in the Western States Small Schools Project have experimented with this technique and report the following promising outcomes: an increase in student independence and capacity for self-directed inquiry; a gradual breakdown in teacher resistance to the idea — indeed, a growing enthusiasm among teachers; and a substantial broadening of the programs of participating small high schools.

b. **Flexible Scheduling.** To take full advantage of its smallness and intimate character, the small school is advised to operate on a very flexible schedule, in order that it may provide ample opportunity for individual learning, group investigation and teacher-pupil consultations. Such an arrangement makes it possible for teachers to group and regroup students as specific learning tasks are mastered.

Again, it is crucial that the responsibility for learning be placed squarely on the learner so that students become partners in making the flexibility work to advantage.

Typically, the small high school teacher contemplates his teaching task smiply in terms of **numbers of lesson preparations.** In these terms his task is staggering — compared to that of his urban colleague. However, if the small high school teacher were alert to one of the potential strengths of his situation, he would contemplate his teaching task, not in terms of numbers of preparations, but rather in terms of **numbers of students to be taught.** In these terms, his advantage over his urban colleague is immediately apparent.

To capitalize upon this advantage, small high school staffs must reject the idea of preparing traditional lessons for classes and direct their attention, instead, to the provision of learning experiences for individuals and small groups of students. A continuing diagnosis of students' problems and a continuing assessment of pupils' progress could and should take precedence over the text book and/or the curriculum guide as a basis for planning and organizing learning experiences in small high schools.

Educators in the Western States Small Schools Project report that as small high schools have discarded the rigid, inflexible organizational and instructional patterns copied from large high schools, and as they have striven to capitalize upon the freedom and flexibility which goes along with smallness, significant changes have taken place. The teacher's role has been redefined as the organizer and coordinator of learning experiences — not simply the dispenser of knowledge. And more significantly students have assumed responsibility for their own learning and have surprised their teachers with their initiative, resourcefulness and capacity to learn.

c. **Other Related Practices.** Certain patterns of team-teaching, cyclical programming, non-grading and the like are closely related to the multiple class and flexible schedule organization which we have suggested.

In each of these proposed procedures the motives are to utilize each teacher's talents to full advantage, to expose the largest possible number of students to each teacher's strengths, and to cause students to assume more and more responsibility for their own learning.

Undoubtedly, other and, perhaps, better ideas could be advanced. The important thing is that educators in small high schools stop copying large high schools — thereby surrendering much of their potential strength—and proceed to develop for themselves organizational patterns and instructional techniques best suited to their own unique situations.

RECOMMENDATION X. That the scarce human resources of the small high school be supplemented by more extensive use of available educational technologies such as the following:

a. **Educational Television.** One of the crucial problems of the small high school is that its program is neither sufficiently broad nor sufficiently challenging to provide adequate education for any group of students — the academically talented, the vocationally oriented, the disadvantaged, or the slow.

It is in the area of this inadequacy that a province-wide educational television service, geared to the needs of small schools, could make a significant contribution. For example, television-taught courses could be added to the curriculum of the small school; inadequately prepared teachers, teaching out of their fields, could be aided by studio teachers; inadequate facilities such as equipment, teaching materials, and community resources could be supplemented by the studio classroom; and continuing education programs for rural teachers could assist in keeping them abreast of developments in their profession.

Planning is already underway for improved educational television services throughout the province. Some agency ought to be charged with the responsibility for ensuring that the interests and needs of small high schools be brought to the attention of the planners.

b. **Tele-teaching.** Several experiments have been conducted or are being contemplated ((Omaha University, Catskill Area Small High Schools, Western States Small High Schools, and the high schools of the Northern Interior Region of B.C.) to evaluate the potential use of existing telephone facilities to transmit "tele-lectures" over great distances.

Indications are that the device has great potential use in small high schools. Conceivably, scholars at nearby universities, teachers at other high schools, or famous individuals anywhere in the world could supplement the instructional program of the small high school by specially planned telephone lectures.

The technique has been tried; it has been found effective; it is well worth trying in Alberta.

c. **Prepared Materials and Courses.** The "packaging" and storing of information (in the form of lecture series or even complete courses) for future presentation to students is a relatively simple matter in this technological age. Yet, surprisingly almost none of this "packaged knowledge" is used in Alberta's small high schools.

It is suggested that taped lectures by outstanding teachers or professors be made available to small high schools; that filmed courses or portions of courses be used where these are available; that programmed materials of all sorts be used as they are suited to the demands of specific learning situations; and so on.

Prepared materials of all kinds, even complete courses, are now finding rather wide use in large high schools and colleges, where presumably instructors teach only in their fields of specialization. Why not in small schools?

Such materials, if carefully prepared, could be a godsend to the rural teacher. Some agency should take this matter in hand, at once.

d. **Standard Audio-Visual Equipment.** Suggestions A, B, and C (re. television, telephone, and prepared instructional materials) incorporated ideas designed to add to the instruction offered by the small high school teacher.

In addition to these devices, there is a host of educational technologies designed to increase the effectiveness of the teacher as a communicator of knowledge and the learner as a discoverer of knowledge. Yet, most small high school teachers use nothing more than a textbook as an aid to instruction.

It is suggested that high school teachers, along with principals and superintendents engage immediately in an in-service program for the purpose of becoming expert in the use of such simple instructional devices as the overhead projector, the slide projector, the tape recorder and so on.

e. **Library.** The book has always been and undoubtedly will continue to be one of the very best self-instructional devices available to man. Yet there are very, very few books available in many of our small schools.

It is imperative that this situation be remedied, if our small high schools are to improve.

Everyone has a responsibility in this matter: trustees, to ensure that funds are available for the purchase of books; principals and superintendents, to ensure that books are ordered; and teachers, to ensure that the right books are ordered, and more important, to ensure that students are encouraged to read them!

RECOMMENDATION XI. That the scarce human resources of the small high school be supplemented as much as possible by other available human resources through such plans as the following:

a. **Saturday Seminars.** In both the Western States Small High School Project and the Catskill Area Project, arrangements have been made for the holding of a series of Saturday seminars in nearby universities and colleges. These seminars are, for the most part, designed for academically talented students and involve most subjects in the high school curriculum.

This plan seems to have a good deal to commend it, though there seems to be no good reason why the service should be available only to the academically talented. Indeed such an experience might be the very thing to activate students considered by their own teachers to be dull or unaroused.

With the development of new universities, regional colleges and technical institutes throughout Alberta, the holding of Saturday Seminars (or some variation of the scheme) seems to be quite within the realm of feasibility.

b. **Community Resources.** In most communities, even small communities, there are all sorts of untapped resources. Many of these resources could and should be used to strengthen the instructional programs of small high schools.

It is difficult to be specific about this particular suggestion, for it is impossible to know exactly what resources are likely to be available in any given community.

However, it is likely that there are, in most communities, housewives with the time and talent to serve as markers, teacher aids, and the like. It is likely, too, that there are businessmen, policemen or professionals with the talent and time to serve as coaches, P.E. assistants, bandmasters, or the like. Furthermore, there may be individuals possessing rare talents who could greatly enrich the program of the small school.

It is a problem for leadership to discover such talents wherever they may be and to negotiate arrangements whereby such talents may be utilized by the small high school.

c. **Part-Time Specialists.** Elsewhere, we have drawn attention to the fact that the small high school suffers seriously from the lack of specialist supervisors and consultants. For economic reasons, these resources are not available to the small school system.

It is not inconceivable, however, that such specialized personnel could be retained on a part-time basis. For example, experts might be hired to give leadership in program development, to assist teachers to develop competencies in newer in-

structional techniques, to assist principals in designing flexible organizational structures, etc.

Like all human talent, specialized skill of the type referred to here is where you find it. Obviously, the university is one likely source; the adjacent school system is another; the business or professional organization is another.

Again, it is a task of leadership to discover persons with specialized skill and to arrange for its use.

RECOMMENDATION XII. That a series of innovations and experiments be initiated for the purpose of increasing the cooperation and the sharing of resources among small high schools and/or the units of multi-campus high schools, such innovations to include the following:

a. **Mobile Teachers, Mobile Students and Mobile Facilities.** Our thinking with respect to the so-called "circuit teacher" has tended to become somewhat stereotyped. The stereotype is of a specialized teacher moving almost every day, from one school to the next to offer students instruction in the one specialized field of study. This concept of the circuit teacher is unattractive to most teachers; indeed, many teachers simply refuse to serve in this capacity.

Our thinking with respect to the movement of students to educational facilities has become similarly stereotyped. Either we house them in dormitories for ten month periods, as we did a few years ago, or we van them daily to and from the educational institutions, as we tend to do more and more today.

In the multi-campus high school it should be possible, through the carefully planned movement of teachers, students and facilities, to reduce the amount of time needed to make a circuit teacher effective and to reduce the amount of travel and/or away-from-home residence necessary to give a student the educational opportunities he needs.

The multi-campus high school will function effectively only if it is flexibly planned and only if a good deal of movement of students, staff, and facilities is permitted. Furthermore, planning the flexibility and mobility will tax the ingenuity and organizational skill of the most competent and creative administrator.

b. **Educational Residences.** The flexibility we envision (divided school year, adaptable programs, itinerant teachers and students, etc.) seems to argue for the establishment of educational residences. These might well be associated with the multi-campus high school or, in some cases, with the regional college.

In any case, the residence should be geared to provide overnight accommodation for students attending special seminars or other events, a week's accommodation for students who find it necessary to leave home-base for a particular unit of a course, a full semester's accommodation for students who find it necessary to leave home to get particular courses, and so on.

To serve this function well, the residence ought to be more than a dormitory. It ought to be an educational institution in its own right, patterned after some of the newer centers which are now to be found on university campuses, where seminars and lectures are held during the day and serious discussions take place after hours.

Though the high school dormitory has never been a popular institution in this country, we believe that some sort of residence has a place in Alberta's system of secondary and higher education. Through wise planning, most of the objectionable features of the old dormitories could be avoided and all the advantages of the resident

seminar, the resident conference, and the like could be made available to the students of our small secondary schools.

c. **Resource Centers.** Every multi-campus high school should have a consolidated Resource Center, (including a library) with satellite centers on each individual campus.

The resource center should be provided with the latest in instructional equipment and all kinds of programmed material, taped lectures, films, slides, strips, etc. The main center should operate on a basis which expedites the distribution of materials to satellite centers as required. It should also provide briefing sessions to keep all teachers informed of the latest developments in instruction.

In these Type B recommendations, we have not attempted to be specific or exhaustive. Instead, we have merely described a few measures which we think might be effective in strengthening small secondary schools — through better use of teacher talents, through more extensive use of educational technologies, through the exploitation of community resources, and through a more effective sharing of talents and resources among groups of small high schools (multi-campus schools).

Throughout these recommendations, we have attempted to maintain and advance one dominant theme — namely, that if the educational services provided by small high schools are to improve as they must, creativity, imagination, and inventivenesss will characterize educational planning in the province in the years ahead.

If the examples that we have provided here serve only as springboards for further thrusts of the imagination on the part of rural educators, they will have served their purpose.

Chapter IV.

RECOMMENDATIONS, TYPE C ON THE INITIATION AND IMPLEMENTATION OF PROPOSED IMPROVEMENTS

The type A and type B recommendations that were advanced in Chapters II and III of this report, were more in the nature of general, incipient ideas than of firm and completely developed recommendations. They were presented in this form for two important reasons.

In the first place, we fully recognized the fact that there are certain uniquenesses about particular small high school situations; accordingly, we realized that our general recommendations ought to be assessed, interpreted, modified and adapted in light of the specifics of particular situations. Indeed, we urged that this be done.

In the second place, we realized that the educational and social climate, the state of readiness to consider innovations, and the level of resistance to change varied from community to community; accordingly, we anticipated that, whereas bold and imaginative recommendations might well be accepted in some areas, even the more cautious and insignificant recommendations might be rejected or regarded with suspicion in others.

For these reasons, our purpose has been more to initiate action than to prescribe action. We are of the opinion that the concern here is not to prescribe pat solutions conceived by "experts" — but rather to set in motion a process which involves all parties in a search for a mutually acceptable solution.

Our recommendations of the A and B types were designed to provide a spring board, or a starting point, for the process of change and evolution which we feel is needed in rural secondary education in Alberta.

It follows that our next task is to suggest procedures for setting in motion this process of change.

Resistance to change occurs, to the surprise and annoyance of educators, even when the reasons for change are perfectly obvious. Hence, educational innovators must be concerned, not only with the planning of educational improvements but also with the social-psychological dynamics of change itself.

In recent years, social scientists have given a good deal of attention to the phenomenon of change and have developed two theories which are particularly pertinent to our case. The first of these relates to the concept of **organizational equilibrium** and the forces which one must deal with in effecting change in a stable institution of society. The second relates to the concept of **latent and manifest functions** and the ways, for example, in which educational motives may become confounded with other motives to the detriment of educational progress. Let us analyze each

of these concepts briefly and then proceed to draw inferences and recommendations.

Organizational Equilibrium: One of the most perplexing phenomena the innovator encounters is the natural inclination of organizations to resist anything new. In this respect, organizations are rather like individuals. The older they grow, the more fixed they become in their ways and the less inclined they are to view change with enthusiasm. The educational institution is certainly no exception to this rule.

This condition may be thought of in terms of a tendency of organizations to seek a state of equilibrium. That is to say, the organization attempts to establish a condition of balance. It attempts to formalize routines; it sets behavioral patterns for members; and it conditions itself to preserve established procedures. Having achieved this state, the organization is said to be in a state of equilibrium or "no change" and it proceeds, instinctively, to protect this state.

The state of equilibrium appears to be achieved and preserved through the interaction of a large number of counter-balancing forces and the fact that the forces are counter-balancing explains the condition of equilibrium. When large numbers of forces impinge upon the institution, they tend to adjust to each other – in some cases neutralize each other – until the organization, attempting to accommodate all forces, becomes more or less suspended in the field of forces that surrounds it.

This is the essence of organizational equilibrium – an organization so preoccupied with accommodating the forces which influence it (both external and internal) that it loses its capacity to change course.

It follows, rather logically, that if one is to effect change in such an organization, one must first upset the equilibrium, create imbalances in the field of forces and, in that way, establish the conditions for change.

Latent and Manifest Functions. Elsewhere in this report, we described briefly a situation uncovered in certain Alberta communities where motives, other than educational, caused local citizens and professional educators to defend the status quo and resist any kind of change in rural secondary education.

These motives varied – but they all followed a pattern. For example, merchants and members of Boards of Trade (or equivalent) were suspected of being guided by economic motives; professional educators were suspected of being guided by personal and professional ambitions; civic minded individuals were suspected of being guided by civic motives; ethnic and religious groups were suspected of being guided by certain cultural motives; and so on.

Clearly, what each individual in the plot is doing is **assigning to the small high school a function which it was never intended to serve.** Hence, the relevance of our theory of latent and manifest function.

The **manifest function** of the small town high school is, in simple terms, to provide secondary education for the youth of the community. But specific individuals, without admitting it, see the small high school as serving other functions, **latent functions** – such as stimulating the economy, serving as a civic and recreational centre, providing employment, providing opportunities for leadership, and so on.

Is it any wonder, that when educators recommend centralization or the like, on educational grounds alone, they meet opposition? Of course, it is not. Though the educational arguments may be convincing, the latent functions may be sufficiently important in the minds of citizens to take precedence over the manifest functions.

What is the lesson to be extracted from this theory? It is simply this. When one wishes to effect change in any organization, one must not only consider the manifest function of the organization. One must also take into account the latent functions and, if necessary, **deal in substitutions** — or in other words, **shift latent as well as manifest functions from one organization to another, so that serious voids are not created in the society.**

In summary, it is concluded from these two theories of change that, if one is to initiate change effectively and smoothly, one must pay attention to two considerations: first, the **forms of cooperation or involvement** which are likely to lead to disequilibrium and, hence, to successful innovation; second, to the possibility of reducing the price, in terms of **latent functions**, which individuals or groups may have to pay for the substance of the change itself.

Accordingly, we recommend as follows:

RECOMMENDATION XIII. That the conditions be created (through departmental directive) for a genuine grass-roots approach to rural school improvement and that such groups as staffs of small schools, citizens of small communities, boards and superintendents of various zones, and so on, come together to study the recommendations in this report and to plan their own high school improvement programs.

Unless this kind of involvement takes place, citizens and even some professional educators are unlikely to perceive the need for change and, hence, are likely to resist the proposed changes.

Furthermore, as we have pointed out elsewhere, the recommendations included in this report must be adapted in terms of the conditions that prevail in specific communities. This is a job for the professional educators and the lay public of each specific community.

RECOMMENDATION XIV. That a research and development project in small high school improvement be initiated in the province under the sponsorship of the Department of Education, the A.S.T.A., the A.T.A. and Faculty of Education to explore the feasibility of the multi-campus high school and to test out the effectiveness of procedures recommended in this report and others; and

That a pilot project be undertaken in at least one of the zones of the province to become a model or pace setter for subsequent developments in rural secondary education.

The project we envision would incorporate the following specific features:

1. A carefully selected **project director** who might also serve as the supervising principal of the pilot multi-campus school. The man chosen for this position should be the most creative and energetic educator to be found. His salary should reflect the importance of his position and he should be charged with the responsibility of making operational the ideas which are likely to produce improvement.

2. An **advisory committee**, composed of representatives of the sponsoring agencies. This committee should serve as a sounding board for the director and should also constitute a high level study group.

3. A number of **study groups** whose interests are the interests of the community in which the pilot project is located. These might include school staffs, citizen groups, trustees and administrators, and so on.

4. Increased **resources** in the form of special research grants to make possible the conduct of all sorts of studies and experiments.

5. Special **educational consultants** and resource personnel, drawn from the University, the Department of Education, etc., to give assistance in the development of experiments and the plan of operations.

6. Special **process consultants** drawn from the fields of Sociology, Political Science, etc. to assist in the assessment of community conditions and to recommend procedures in the process of change.

A FINAL THOUGHT

Over the years, Alberta has developed something of a reputation for its boldness and inventiveness in education. Indeed, the province has been referred to as the "experimental laboratory" in Canadian education.

We believe that the time has come for boldness and inventiveness in rural secondary education throughout the whole of North America. Perhaps, Alberta will again lead the way.

With this thought in mind, we conclude with the following quotation from the "Rockefeller Report" on **The Pursuit of Excellence.**

> One of the characteristics of a dynamic society is that its frontiers are constantly changing: The frontiers of today become the familiar territory of tomorrow . . .
>
> A dynamic society requires above all receptivity to change. To rest on achievement is a denial of creativity and an invitation to stagnation.

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